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1 Introduction

Product Version

This documentation applies to ZStack Cloud 5.3.40.

Intended Audience

This documentation elaborates on the definitions of and how to use ZStack Cloud 5.3.40 RESTful API, and is intended for the following audiences:

- Architects
- Developmental engineers
- Test engineers
- Project implementation engineers
- People who are interested in
- People who are interested in ZStack Cloud

2 RESTful API Overview

ZStack Cloud 5.3.40 provides native RESTful supports. You can design principles and conventions by using the REST-defined framework, and use the HTTP-based programming language for further development.

2.1 HTTP Verbs

ZStack Cloud API allows you to perform operations on resources by using the following four HTTP verbs.

HTTP Verb	Description
GET	Obtains resource information. This verb is used by all query APIs and read APIs.
POST	Creates a resource.
PUT	Updates a resource. This verb is used to modify a resource, or perform RPC style calls, for example, start a VM instance.
DELETE	Deletes a resource.

2.2 Parameter Passing

URL, Query String, and HTTP Body can all be used to pass parameters. Each method can be used independently, or be used in conjunction with other methods. Note that the specific method is determined by the API you use.

URL Parameter Passing

When you operate on a specific resource, the resource UUID will be encoded and then passed to a URL.

For example, start a VM instance with the UUID *f97143d60f1042c9badd9a1336d3c105*. Then, the URL format is as follows:

```
zstack/v1/vm-instances/f97143d60f1042c9badd9a1336d3c105/actions
```

In the preceding sample, the UUID is encoded and passed to a URL.

Query String Parameter Passing

All APIs that use the HTTP GET verb pass parameters by using query strings.

For example, query all the VM instances that are in the running state. Then, the URL format is as follows:

```
zstack/v1/vm-instances?q=state=Running
```

HTTP Body Parameter Passing

When you create a resource by using the POST verb, or modify a resource by using the PUT verb, the rest of the parameters will be passed by using the HTTP body method apart for those passed by using a URL.

For example, start a VM instance on a specified host.

```
PUT zstack/v1/vm-instances/f97143d60f1042c9badd9a1336d3c105/actions
{
  "startVmInstance": {
    "hostUuid": "8aef7e3a53b34eedaa05027a919156d9"
  }
}
```

In the preceding sample, the UUID of the VM instance is passed by using a URL, while the **hostUuid** parameter is passed by using the HTTP body.

2.3 HTTP Headers

ZStack Cloud API uses the following custom HTTP headers.

Authorization

You need a session before you use all ZStack Cloud APIs, except for a few APIs such as login API. When you call an API, the session UUID will be passed by using the Authorization HTTP header. The header format is as follows:

```
Authorization: OAuth Session UUID
```

Example:

```
Authorization: OAuth 34cbfddd470a47d8bdb0727cd2182618
```

**Note:**

OAuth and the session UUID must be separated by using a space.

X-Job-UUID

If you use an asynchronous API, you can specify the API Job UUID by using the X-Job-UUID HTTP header. For example,

```
X-Job-UUID: d825b1a26f4e474b8c59306081920ff2
```

If an HTTP header is not specified, ZStack Cloud will automatically generate a UUID for API Job.



Note:

X-Job-UUID must be a version 4 UUID (a random UUID) without hyphens (-). ZStack Cloud will authenticate the validity of the X-Job-UUID format, and returns the 400 Bad Request error for invalid strings.

X-Web-Hook

If you use an asynchronous API, you can specify a callback URL by using the X-Web-Hook HTTP header to receive API responses. By using the callback URL method, the caller can avoid using the round-robin policy to query the results of an asynchronous API operation. For example,

```
X-Web-Hook: http://localhost:5000/api-callback
```

X-Job-Success

When you obtain the operation results of an asynchronous API by using the X-Web-Hook callback method, ZStack Cloud will include the X-Job-Success HTTP header to the HTTP Post request send to the callback URL. The X-Job-Success HTTP header indicates whether the API operation succeeds or not. For example,

```
X-Job-Success: true
```

If the value is *true*, the operation succeeds, or vice versa.

2.4 HTTP Status Code

The following table lists the status codes used by ZStack Cloud .

HTTP Status Code	Description
200	The API operation has succeeded.

HTTP Status Code	Description
202	The API request has been accepted by ZStack Cloud, and you need to obtain the API result by using the round-robin policy or webhook. The status code only appears when you call an asynchronous API.
400	The API request does not include the required parameter, or includes an invalid parameter. The detailed information can be obtained from the HTTP response body.
404	The correct URL was not found, which usually because a wrong API URL is specified. If the URL that you access is the round-robin address returned by the asynchronous API, the round-robin address has expired.
405	The API call uses a wrong HTTP method. For example, when you create a resource, you might mistakenly used the GET method instead of the POST method.
500	The ZStack Cloud RESTful terminal has encountered an internal error.
503	The API operation incurred an error. For example, you cannot create a VM instance because of the resource shortage. The detailed error information can be obtained from the HTTP response body.

2.5 API Type

ZStack Cloud API includes the following two types of APIs.

Synchronous API

APIs that use the GET method are all synchronous APIs, and includes API results in HTTP response received by callers. For example,

```
GET zstack/v1/zones/f3fa7671894a40f6a73f5bfc7d90c126

{
  "inventory": {
    "uuid": "f3fa7671894a40f6a73f5bfc7d90c126",
    "name": "zone1",
    "description": "test",
    "state": "Enabled",
    "type": "zstack",
    "createDate": "Jan 6, 2017 3:51:16 AM",
    "lastOpDate": "Jan 6, 2017 3:51:16 AM"
  }
}
```

```
}
```

Asynchronous API

Apart from the login APIs, all APIs that do not use the GET method are asynchronous APIs. After you successfully called an asynchronous API, you will receive a 202 status code and a round-robin address and timeout period (the location and apiTimeout fields) contained in Body. The unit of the apiTimeout field value is milliseconds. In addition, by using the GET method, you need to periodically request the round-robin address to obtain API operation results. For example,

```
Status Code: 202
Body:
{
    "apiTimeout": 43200000
    "location": "http://localhost:8989/v1/api-jobs/967a26b7431c49c0b1d5
0d709ef1aef3"
}
```

Normally, when you request a round-robin address by using the GET method, you can obtain the following four types of responses:

1. 202 status code: indicates that the API is still being processed, and you need to continuously use the round-robin policy.
2. 200 status code: indicates that the API operation succeeded, and the API result is contained in Body.
3. 503 status code: indicates that the API operation failed, and the error code is contained in Body.
4. 404 status code: indicates that the round-robin address has expired. That means that you probably access a wrong round-robin address, or the round-robin address is deleted because you have not accessed the round-robin address for a long time (for example, 2 days).

If you use an asynchronous API, you can also obtain the operation results by using webhook. The detailed usage can be seen in the following topics or sections.

2.6 API Operation

Similar to all RESTful APIs, most of ZStack Cloud APIs can perform create, read, update, and delete (CRUD) operations and remote procedure call (RPC) style operations.

Create Resource

To create resources, use the POST method. The parameters are passed by using the HTTP body. The following is an example of creating a VM instance:

```
POST zstack/v1/vm-instances

Authorization: OAuth 0c234e29a2ad4ff4b0d97d4f3b47c6cf

{
  "params": {
    "l3NetworkUuids": ["37a701c7fe4a40758da15593aedd8aff"],
    "defaultL3NetworkUuid": "37a701c7fe4a40758da15593aedd8aff",
    "dataDiskOfferingUuids": [],
    "name": "TestVm",
    "description": "Test",
    "systemTags": [],
    "instanceOfferingUuid": "dd53f94b58924510b0122e40799a4114",
    "type": "UserVm",
    "imageUuid": "cc7b56780879409f98c1f992b75a12b0"
  }
}
```

Query Resource

To query resources, use the GET method. The query conditions are passed by using a query string. The following is an example of querying the VM instances whose name is **not equal** to *web-vm* in the *cluster1*:

```
GET zstack/v1/vm-instances?condition=name!=web-vm&condition=cluster.name=cluster1

Authorization: OAuth 0c234e29a2ad4ff4b0d97d4f3b47c6cf
```

If you already know the resource UUID and want to obtain directly the resource information, use directly the GET method without adding any query condition. For example,

```
GET zstack/v1/vm-instances/56f0fd314a2647ffb4f9565f6d05858e

Authorization: OAuth 0c234e29a2ad4ff4b0d97d4f3b47c6cf
```

This sample above returns information about the VM instance whose UUID is *56f0fd314a2647ffb4f9565f6d05858e*.

Delete Resource

To delete resources, use the DELETE method. The UUID of the deleted resource is encoded in a URL. For example,

```
DELETE zstack/v1/vm-instances/56f0fd314a2647ffb4f9565f6d05858e
```

```
Authorization: OAuth 0c234e29a2ad4ff4b0d97d4f3b47c6cf
```

This sample above deletes the VM instance whose UUID is *56f0fd314a2647ffb4f9565f6d05858e*.

Change Resource and Perform RPC-Style Operation

Due to the nature of IaaS businesses, a portion of operations, such as starting a VM instance, are more similar to RPC operations instead of CRUD operations. According to some best practices of RESTful APIs, ZStack Cloud will categorize all these operations into sub-resources of operations. For example, when you start VM instances, or stop VM instances, you are performing operations on the sub-resources.

Start a VM instance:

```
PUT zstack/v1/vm-instances/d46841bd4ebd47f8bf0bed85c3bdf0db/actions
{
  "startVmInstance": {}
}
```

Stop a VM instance:

```
PUT zstack/v1/vm-instances/d46841bd4ebd47f8bf0bed85c3bdf0db/actions
{
  "stopVmInstance": {}
}
```

In the preceding samples, both operations access the same URL */v1/vminstances/d46841bd4ebd47f8bf0bed85c3bdf0db/actions*, and the specific operation types are indicated by the field name contained in Body. For example, if the stopVmInstance API contains additional parameters, these parameters are contained in the map to which the operation field name corresponds.

For more information about the specific field names of resource operations and examples, refer to detailed topics of each ZStack Cloud API.

2.7 Basic Workflow

In the following example, we will create a zone to describe the basic workflow for using the RESTful API.

Log In

The first step to use APIs is to log in to your account to obtain a session UUID for subsequent API calls.

```
PUT zstack/v1/accounts/login
```

```
body:
{
  "loginByAccount": {
    "password":
    "b109f3bbbc244eb82441917ed06d618b9008dd09b3befd1b5e07394c706a8bb980b1d7785e5976e"
    "accountName": "admin"
  }
}
```

In the preceding sample, the account password is the result generated by SHA-512.

The API response is as follows:

```
status code: 200
body:
{
  "inventory": {
    "uuid": "00d038b699b74e76a01705918d48d939",
    "accountUuid": "36c27e8ff05c4780bf6d2fa65700f22e",
    "userUuid": "36c27e8ff05c4780bf6d2fa65700f22e",
    "expiredDate": "Jan 1, 2017 11:31:06 AM",
    "createDate": "Jan 1, 2017 9:31:06 AM"
  }
}
```

The response content contains the account UUID and other fields. The session UUID that you need is contained in the **uuid** field: *00d038b699b74e76a01705918d48d939*.

Create Zone

```
POST zstack/v1/zones
headers:
Authorization: OAuth 00d038b699b74e76a01705918d48d939
body:
{
  "params": {
    "name": "Zone1",
    "description": "Test"
  }
}
```

The CreateZone API is an asynchronous API. Therefore, the API response is a round-robin address and a timeout period instead of a direct result. For example,

```
status code: 202
body:
{
  "apiTimeout":1800000
}
```

```
"location": "http://localhost:8080/v1/api-jobs/d0345d3ddc
ae485f8170572b15a2b581"
}
```

You need to obtain API results periodically by using the round-robin policy. For example,

```
GET http://localhost:8989/v1/api-jobs/d0345d3ddcae485f8170572b15a2b581
Authorization: OAuth 00d038b699b74e76a01705918d48d939
```

If the API operation does not complete, the preceding GET operation still obtains a 202 status code and the round-robin address. After the API operation succeeded, you will get the following result:

```
status code: 200
body:
{
  "inventory": {
    "uuid": "f52fe55b64094ceb99b3893a238c4931",
    "name": "Zone1",
    "description": "Test",
    "state": "Enabled",
    "type": "zstack",
    "createDate": "Jan 1, 2017 9:31:07 AM",
    "lastOpDate": "Jan 1, 2017 9:31:07 AM"
  }
}
```

Query Zone

You can use the GET method to obtain the information about the zone you created. For example,

```
GET zstack/v1/zones/f52fe55b64094ceb99b3893a238c4931
Authorization: OAuth 00d038b699b74e76a01705918d48d939
```

The response is as follows:

```
status code: 200
body:
{
  "inventory": {
    "uuid": "f52fe55b64094ceb99b3893a238c4931",
    "name": "Zone1",
    "description": "Test",
    "state": "Enabled",
    "type": "zstack",
    "createDate": "Jan 1, 2017 9:31:07 AM",
    "lastOpDate": "Jan 1, 2017 9:31:07 AM"
  }
}
```

```
}
```

Log Out

When all API calls are completed, you need to log out the session. For example,

```
DELETE zstack/v1/accounts/sessions/00d038b699b74e76a01705918d48d939
```

The response is as follows:

```
status code: 200
```

2.8 Webhook

Using the round-robin policy to query the operation results of asynchronous APIs is inefficient. In this regard, zstack provides the webhook method to actively send API results to callers.

To use the webhook feature, you only need to specify X-Job-UUID and X-Web-Hook in the HTTP headers. In the preceding example of creating a zone, the version of the API that use the webhook method is as follows:

```
POST zstack/v1/zones

headers:

Authorization: OAuth 00d038b699b74e76a01705918d48d939
X-Job-UUID: d0345d3ddcae485f8170572b15a2b581
X-Web-Hook: http://127.0.0.1:8989/rest-webhook

body:
{
  "params": {
    "name": "Zone1",
    "description": "Test"
  }
}
```

The API response is still a 202 status code and a round-robin address. However, you do not need to use the round-robin policy again. After the API operation succeeded, the result will be sent to: `http://127.0.0.1:8989/rest-webhook`

```
POST http://127.0.0.1:8989/rest-webhook

headers:

X-Job-Success: true
X-Job-UUID: d0345d3ddcae485f8170572b15a2b581

body:
{
  "inventory": {
```



```

    "uuid": "f52fe55b64094ceb99b3893a238c4931",
    "name": "Zone1",
    "description": "Test",
    "state": "Enabled",
    "type": "zstack",
    "createDate": "Jan 1, 2017 9:31:07 AM",
    "lastOpDate": "Jan 1, 2017 9:31:07 AM"
  }
}

```

In the result above, X-Job-Success indicates whether the API operation succeeds. In addition, the value contained in X-Job-UUID is the same as that of X-Job-UUID when you call APIs. Note that you can compare the result with the API.

2.9 Query API

You can query a resource by using the GET method. Similar to MySQL, you can specify multiple query conditions and the order method, or select fields and perform cross-table query.

ZStack Cloud supports more than 4 million query conditions as well as factorial of 4 million combinations of conditions.

Single Table Query

Query the VM instance whose name is *vm1*. For example,

```
GET zstack/v1/vm-instances?q=name=vm1
```

Query the VM instance whose name is *vm1* and is in the *Running* state. For example,

```
GET zstack/v1/vm-instances?q=name=vm1&q=state=Running
```

These two samples are about querying the VM resource itself, which belongs to the single table query in the database level.

Cross-Table Query

You can perform cross-table queries by using the `.` delimiter. The following are two examples:

Query the VM instance whose IP address is *192.168.10.100*. The cross-table query is performed for the VM instance table and the NIC table.

```
GET zstack/v1/vm-instances?q=vmNics.ip=192.168.10.100
```

Query all the VM instances that are running on the *10.10.20.3* IP address. The cross-table query is performed for the VM instance table and the host table.

```
GET zstack/v1/vm-instances?q=host.managementIp=10.10.20.3
```

Query API Parameters

Name	Type	Location	Description	Optional Value	Starting Version
q	List	query	Optional. The query condition. For more information, see Query Condition . If omitted, all records will be returned. The number of returned records is subject to the limit field.		0.6
limit	Integer	query	Optional. The maximum number of returned records. This field is equivalent to the limit field of MySQL. Default value: 1000.		0.6
start	Integer	query	Optional. The first record to query. This field is equivalent to the offset field of MySQL. You can perform paginated query by using both the start and limit fields.		0.6
count	Boolean	query	Optional. The count query. This field is equivalent to the count() function of MySQL. If true, the API only returns the number of records that meet the query condition.		0.6
groupBy	String	query	Optional. Groups rows into subgroups based on values of columns or expressions. This field is equivalent to the Group By clause in MySQL, such as groupBy=type.		1.9
replyWithCount	Boolean	query	Optional. If true, the query response returns both the records and the record count. Default value: false.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			For more information, see Paginated Query .		
sort	String	query	Optional. The sort field, which is equivalent to the sortBy keyword of MySQL. This field must be used with '+' or '-' followed by the sort field name. Note that '+' means sort ascending, while '-' means sort descending. For example, - sort=+key: sorts ascending according to the key - sort=-key: sorts descending according to the key	'+' field name, '-' field name	0.6
fields	List	query	Optional. The returned fields. This field is equivalent to the select field of MySQL. For example, if fields=name,uuid, only names and UUIDs that meet the query conditions are returned.		0.6

Query Condition

The query conditions of ZStack Cloud query API are similar to the MySQL database.

For example,

```
uuid=bfa67f956afb430890aa49db14b85153
totalCapacity>2000
vmInstanceUuid not null
```



Note:

- Any space must not be contained between the field name, query operator, and match value.
- For example, `uuid = 25506342d1384c07b7342373a57475b9` is a wrong query condition. The correct format is `uuid=25506342d1384c07b7342373a57475b9`.

The relations among multiple query conditions are and. ZStack Cloud supports the following 10 query operators:

1. **=**: Equal. For example,

```
vmInstanceId=c4981689088b40f98d2ade2548c323da
```

2. **!=**: Not equal. For example,

```
vmInstanceId!=c4981689088b40f98d2ade2548c323da
```

3. **>**: Greater than.

4. **<**: Less than.

5. **>=**: Greater than or equal.

6. **<=**: Less than or equal.

7. **?= in** operator. This operator is used to check whether a value is within a set of values. Values in the set are separated by using commas (,). For example, check whether *uuid* is within a set of values.

```
uuid?=25506342d1384c07b7342373a57475b9, bc58d68090ac42358c0c  
b0fe72e3287f
```

8. **!= not in** operator. This operator is used to check whether a value is **not within** a set of values. Values in the set are separated by using commas (,). For example, check whether *name* is not equal to VM1 and VM2.

```
name!=VM1, VM2
```

9. **~=**: Simple pattern matching, which is similar to the **like** operation in MySQL. Use **%** to match any number of characters, even zero characters. Use **_** to match exactly one character. For example, query a name that starts with *IntelCore*.

```
name~=IntelCore%
```

10. Or query a name that starts with *IntelCore* and ends with *7*. A character will be fuzzily matched between *IntelCore* and *7*.

```
name~=IntelCore_7
```

Here, names with *IntelCoreI7* and *IntelCoreM7* will be matched.

11. **!~=**: Negation of simple pattern matching. This operator is used to query a field that cannot be matched by using simple pattern matching. In addition, the match condition is the same as that of **~=**.

12.is null: Checks whether a value is NULL.

```
name=null
```

13.not null: Checks whether a value is not NULL.

```
name!=null
```

Paginated Query

start, **limit**, and **replyWithCount** can all be used in conjunction to achieve paginated queries.

- **start:** Specifies the first record to query.
- **limit:** Specifies maximum number of returned records.
- **replyWithCount:** If true, the query response returns both the records and the record count that meet the query condition. You can know how many times of paginated queries are required by comparing this field with the **start** field.

For example,

If a total of 1000 records meet the query condition, you can use the following combination:

```
start=0 limit=100 replyWithCount=true
```

Then, the API response will contain the first 100 records, and the total field is equal to 1000, indicating that a total number of 1000 records meet the query condition.

Obtaining Query Fields of a Resource

We support a large number of query conditions. The query conditions listed in this documentation are only a part of them.

You can check the queryable fields of a resource and the fields that can be queried across tables by using the autocomplete feature of `zstack-cli`.

- For example, to query a VM instance, enter `QueryVmInstance` in `zstack-cli`, and complete the rest of the fields by pressing the **Tab** key. Then, you can see the following prompt page:

```
- >>>QueryVmInstance
[Query Conditions:]
allVolumes.          cluster.          host.
  image.             instanceOffering.  rootVolume.
vmNics.              zone.

__systemTag__=      __userTag__=      allocatorStrategy=
clusterUuid=        cpuNum=           cpuSpeed=
createDate=         defaultL3NetworkUuid=  description=
groupBy=            hostUuid=         hypervisorType=
```

imageUuid= lastOpDate= platform= type= uuid=	instanceOfferingUuid= memorySize= rootVolumeUuid= zoneUuid=	lastHostUuid= name= state=
[Parameters:]		
count= replyWithCount= start=	fields= sortBy= timeout=	limit= sortDirection=

- Information in the middle rows is displayed as follows:

__systemTag__= clusterUuid= createDate= groupBy= imageUuid= lastOpDate= platform= type= uuid=	__userTag__= cpuNum= defaultL3NetworkUuid= hostUuid= instanceOfferingUuid= memorySize= rootVolumeUuid= zoneUuid=	allocatorStrategy= cpuSpeed= description= hypervisorType= lastHostUuid= name= state=

Except for both **__systemTag__** and **__userTag__**, the rest are all native fields in the VM table. You can specify them in the API query condition, and specify these fields in **fields** to filter other fields that you do not want the API to return. For example,

```
GET zstack/v1/vm-instances?q=cpuNum>5
```

The sample above returns the VM instances whose CPU number is larger than 5.

```
GET zstack/v1/vm-instances?  
q=hypervisorType=KVM&fields=uuid&fields=name
```

The sample above returns the VM instances whose hypervisor type is KVM. The API response will only contain the name and UUID of the KVM instances, because both **uuid** and **name** are specified in **fields**.



Note:

Only native fields of resources are selected by **fields**. **__userTag__**, **__systemTag__**, and the following cross-table fields cannot appear in **fields**.

- The first prompt row indicates which VM resources can be queried across tables with other resources. For example,

allVolumes. image.	cluster. instanceOffering.	host. rootVolume.

```
vmNics.                zone.
```

In the sample above, **allVolumes** means all volumes, **cluster** means the cluster, and **vmNics** means the VM NICs.

If you need to check the specific fields of these resources, enter the resource name followed by a period (.), and complete the rest of the fields by pressing the **Tab** key.

For example,

```
- >>>QueryVmInstance vmNics.
[Query Conditions:]
vmNics.eip.                vmNics.l3Network.                vmNics
.loadBalancerListener.    vmNics.portForwarding.            vmNics.
securityGroup.
vmNics.vmInstance.

vmNics.__systemTag__=      vmNics.__userTag__=      vmNics.
createDate=                vmNics.deviceId=            vmNics.gateway=
vmNics.ip=                  vmNics.l3NetworkUuid=    vmNics.
lastOpDate=                vmNics.mac=              vmNics.metaData
=
vmNics.netmask=            vmNics.uuid=            vmNics.
vmInstanceUuid=
```

In the sample above, we entered the **vmNics** resource followed by a period (.) to indicate that a cross-table query will be performed. Pressing the **Tab** key completes the rest native fields of **vmNics** and other resources that can be queried cross tables.

- **vmNics.ip** means the **ip** native field of a NIC.

```
GET zstack/v1/vm-instances?q=vmNics.ip=192.168.0.100
```

In the sample above, we performed a cross-table query by using the **ip** field of the NIC table as the query condition. In the response, the VM instance whose IP address is *192.168.0.100* is returned.

- Similarly, the NIC resource can be queried across tables with other resources, such as **vmNics.eip**.

For example, you can perform query across the NIC table and the EIP table.

```
GET zstack/v1/vm-instances?q=vmNics.eip.ip=192.168.0.100
```

In the sample above, the query is performed across 3 tables. In the response, the VM instance whose EIP is *192.168.0.100* is returned.

- The cross-table query allows you to perform query across resources that are logically related in the system. For example,

```
- >>>QueryVmInstance zone.cluster.l2Network.l3Network.
[Query Conditions:]
zone.cluster.l2Network.l3Network.ipRanges.           zone.cluster
.l2Network.l3Network.l2Network.           zone.cluster.l2Network.
l3Network.networkServices.
zone.cluster.l2Network.l3Network.serviceProvider.   zone.cluster
.l2Network.l3Network.vNic.           zone.cluster.l2Network.
l3Network.zone.

zone.cluster.l2Network.l3Network.__systemTag__=       zone.cluster
.l2Network.l3Network.__userTag__=           zone.cluster.l2Network.
l3Network.createDate=
zone.cluster.l2Network.l3Network.description=         zone.cluster
.l2Network.l3Network.dnsDomain=           zone.cluster.l2Network.
l3Network.l2NetworkUuid=
zone.cluster.l2Network.l3Network.lastOpDate=           zone.cluster
.l2Network.l3Network.name=           zone.cluster.l2Network.
l3Network.state=
zone.cluster.l2Network.l3Network.system=           zone.cluster
.l2Network.l3Network.type=           zone.cluster.l2Network.
l3Network.uuid=
zone.cluster.l2Network.l3Network.zoneUuid=
```

In the sample above, the query is performed across the tables of **zone**, **cluster**, **L2 network**, and **L3 network**.



Note:

- Since a resource logic has a loop, the loop path can be created. For example, assume that the VM instance is a query body, and can be queried across tables, such as using `QueryVmInstance vmNics..` Meanwhile, assume that the NIC is also a query body, and can be queried across tables with the VM instance, such as using `QueryVmNic vmInstance..` Hence, a loop path is created.
- You must avoid performing the cross-table query for the loop. For example, use `QueryVmInstance vmNics.vmInstance.name=vm1` to perform the cross-table query for the VM instance of name=vm1. In fact, it is totally equal to using `QueryVmInstance name=vm1`. This is meaningless, because it will only generate complex SQL statements, which will lead to inefficient database queries.
- Both `__systemTag__` and `__userTag__` are special query conditions, allowing you to query resources by using a tag.

For example, you can query a VM instance that has the *staticIp:10.10.1.20* tag.

```
QueryVmInstance __systemTag__=staticIp:10.10.1.20
```

2.10 Changing API Service Port

Assume that you need to change an API service port. For example, to change the original API service port 8080 to the API service port 8989, follow the following steps:

1. Go to */usr/local/zstacktest/apache-tomcat/webapps/zstack/WEB-INF/classes/zstack.properties*, and configure the following parameters in the **zstack.properties** configuration file:

```
CloudBus.httpPort = 8989
RESTFacade.port = 8989
```

2. Go to */usr/local/zstacktest/apache-tomcat-8.5.35/conf/server.xml*, and change port 8080 to port 8989 in the **server.xml** configuration file of **tomcat**.
3. Run the following command to change the management node port to 8989:

```
zstack-ctl config_ui --mn-port 8989
```

4. Restart the management node and UI.

```
zstack-ctl stop
zstack-ctl start
```

5. Specify the port to 8989 when you are using **zstack-cli**.

```
zstack-cli --port 8989
```



Note:

The configured API service port must be in the valid range, and must not be in conflict with the API service port occupied by ZStack Cloud.

2.11 Batch API Response

Batch API responses can be classified into two categories: responses of long jobs and responses of non-long jobs.

Non-Long Job API Response

For error responses of non-long jobs, the value of the `success` field in the first layer is `true`. The value of the `success` field in inner layers vary depending on the sub-task result. If a sub-task

succeeded, `success=true` is returned. Otherwise, `success=false` is returned. The following shows a sample response of the `APIBatchDeleteVolumeSnapshotMsg` operation:

Error Response:

```
{
  "results": [
    {
      "error": {
        "code": "VOLUME_SNAPSHOT.1000",
        "description": "Snapshot is not in correct status for operation.",
        "details": "snapshot[uuid:e9c43724c6614aa488b63d6b33e30ebd, name:test1]'s status[Ready] is not allowed for message[org.zstack.header.storage.snapshot.VolumeSnapshotDeletionMsg], allowed status[Ready, Creating, Deleting]"
      },
      "snapshotUuid": "e9c43724c6614aa488b63d6b33e30ebd",
      "success": false
    },
    {
      "error": {
        "code": "VOLUME_SNAPSHOT.1000",
        "description": "Snapshot is not in correct status for operation.",
        "details": "snapshot[uuid:e9c43724c6614aa488b63d6b33e30ebd, name:test2]'s status[Ready] is not allowed for message[org.zstack.header.storage.snapshot.VolumeSnapshotDeletionMsg], allowed status[Ready, Creating, Deleting]"
      },
      "snapshotUuid": "63daa66726b24f9390216b8edf32190d",
      "success": false
    }
  ],
  "success": true
}
```

Successful Response:

```
{
  "results": [
    {
      "snapshotUuid": "1c8408e0f05d4fc39465d7db27d6bc32",
      "success": true
    },
    {
      "snapshotUuid": "e071e0ec42de4323bff23993a6a236d2",
      "success": true
    }
  ],
  "success": true
}
```

Long Job API Response

For error responses of long jobs, the value of the `success` field in the first layer is `true`. The value of the `success` field in inner layers vary depending on the sub-task result. If a sub-task

succeeded, `success=true` is returned. Otherwise, `success=false` is returned. The following shows a sample response of the `APIAddHostFromConfigFileMsg` operation:

Error Response:

```
{
  "results": [
    {
      "error": {
        "code": "SYS.1006",
        "cost": "5ms",
        "description": "An operation failed",
        "details": "the host[10.0.231.23] ssh port[22] not
open after 300 seconds, connect timeout",
        "elaboration": "错误信息: 物理机[10.0.231.23]的ssh端口[22]
在 300 秒内未开放, 连接超时",
        "location": "HostManagerImpl.java: send-connect-host-
message (location:2/4)"
      },
      "ip": "10.0.231.23",
      "success": false
    },
    {
      "error": {
        "code": "SYS.1007",
        "description": "One or more API argument is invalid",
        "details": "已经存在一个管理IP是[10.0.93.160]的物理机"
      },
      "ip": "10.0.93.160",
      "success": false
    }
  ],
  "success": true
}
```

Successful Response:

```
{
  "results": [
    {
      "ip": "10.0.231.231",
      "success": true
    },
    {
      "ip": "10.0.93.160",
      "success": true
    }
  ],
  "success": true
}
```

Conclusion

- The value of the `success` field in the first layer of the two categories of API responses is `true`.
- The value of the `success` field in the first layer indicates the result of a Restful API request. If the request succeeds, the value of the `success` field is `true`.

- The value of the `successfield` in the inner layers indicates the result of a sub-task of a Restful API request. If a sub-task succeeds, `success=true` is returned for the sub-task. Otherwise, `success=false` is returned for the sub-task.

**Note:**

API responses displayed on the UI may be modified. For example, the `successCount` and `failCount` fields may be added to the API response.

3 SDK Overview

ZStack Cloud provides Java SDK and Python SDK supports. To use the corresponding features, call ZStack Cloud APIs by using the SDK method.

To call ZStack Cloud APIs by using the SDK method, pay attention to the following issues:

- Java SDK compatible version: Java 8.
- Python SDK compatible version: Python 2.7.
- Format of `sdk_dataformat`: YY-MM-DD hh:mm:ss, such as 2019-03-08 19:23:00.

3.1 Environment Preparation

Before you use Java SDK or Python SDK, prepare the following software tools:

Java

- **Java Development Tool (IntelliJ IDEA)**

According to your own usage, download and install the appropriate Java development tool, such as IntelliJ IDEA and Eclipse, and complete the initialization job. This topic uses IntelliJ IDEA as an example.

- **Java JDK Tool**

Install the Java JDK tool in advance. We recommend that you use Java JDK 8.

- **ZStack Cloud Java SDK JAR Dependency Package**

Before you use the ZStack Cloud SDK, obtain the Java SDK JAR dependency package in advance. The package is stored in ZStack Cloud Installation Package.

- ZStack Cloud Installation Package:
 - Software: ZStack-Cloud-installer-5.3.40.bin
 - Download address: [Click here](#)
- Java SDK Dependency Package
 - File name: sdk-5.3.40.jar.
 - Storage path: `/usr/local/zstack/apache-tomcat/webapps/zstack/WEB-INF/lib/sdk-5.3.40.jar`.
- **Third-Party JAR Depended by SDK**

The detailed information about the JAR dependency package is as follows:

```
<dependencies>
```

```

<dependency>
  <groupId>org.zstack</groupId>
  <artifactId>sdk</artifactId>
  <version>3.4.0</version>
</dependency>
<dependency>
  <groupId>com.squareup.okhttp3</groupId>
  <artifactId>okhttp</artifactId>
  <version>3.5.0</version>
</dependency>
<dependency>
  <groupId>com.google.code.gson</groupId>
  <artifactId>gson</artifactId>
  <version>2.1</version>
</dependency>
<dependency>
  <groupId>commons-beanutils</groupId>
  <artifactId>commons-beanutils</artifactId>
  <version>1.9.3</version>
</dependency>
<dependency>
  <groupId>javax.servlet</groupId>
  <artifactId>servlet-api</artifactId>
  <version>2.5</version>
  <scope>provided</scope>
</dependency>
<dependency>
  <groupId>commons-codec</groupId>
  <artifactId>commons-codec</artifactId>
  <version>1.9</version>
</dependency>
</dependencies>

```

Python

1. Use either of the following methods to prepare a ZStack Cloud environment:

- Install an ZStack Cloud environment to the server to be used as the management node.
 - ZStack Cloud installation package:
 - Software: ZStack-Cloud-installer-5.3.40.bin
 - Download address: [Click here](#)
- Use the local PC to create a temporary virtual environment directory, for example, `/var/lib/virtualenv` and then execute the following command to copy an existing ZStack Cloud environment directory `/var/lib/zstack/virtualenv/zstackcli` to the newly created directory:

```
scp -r /var/lib/zstack/virtualenv/zstackcli $LocalHostIP:$VirtualDirectory //LocalHostIP is the IP address of the local PC
and VirtualDirectory is the directory created in the local PC.
```



Note:

Make sure that the local PC is connected to the management node and is installed Python 2.

2. Enable ZStack-CloudCLI tool to call Python SDK:

- If you use the management node, run the following command:

```
source /var/lib/zstack/virtualenv/zstackcli/bin/activate
```

- If you use the local PC, run the following command:

```
source $VirtualDirectory/zstackcli/bin/activate //VirtualDirectory  
is the directory created in the local PC.
```

3. Specify the IP address of the management node:

- If you use the management node, run the following command:

```
export ZS_SERVER_IP=127.0.0.1
```

- If you use the local PC, run the following command:

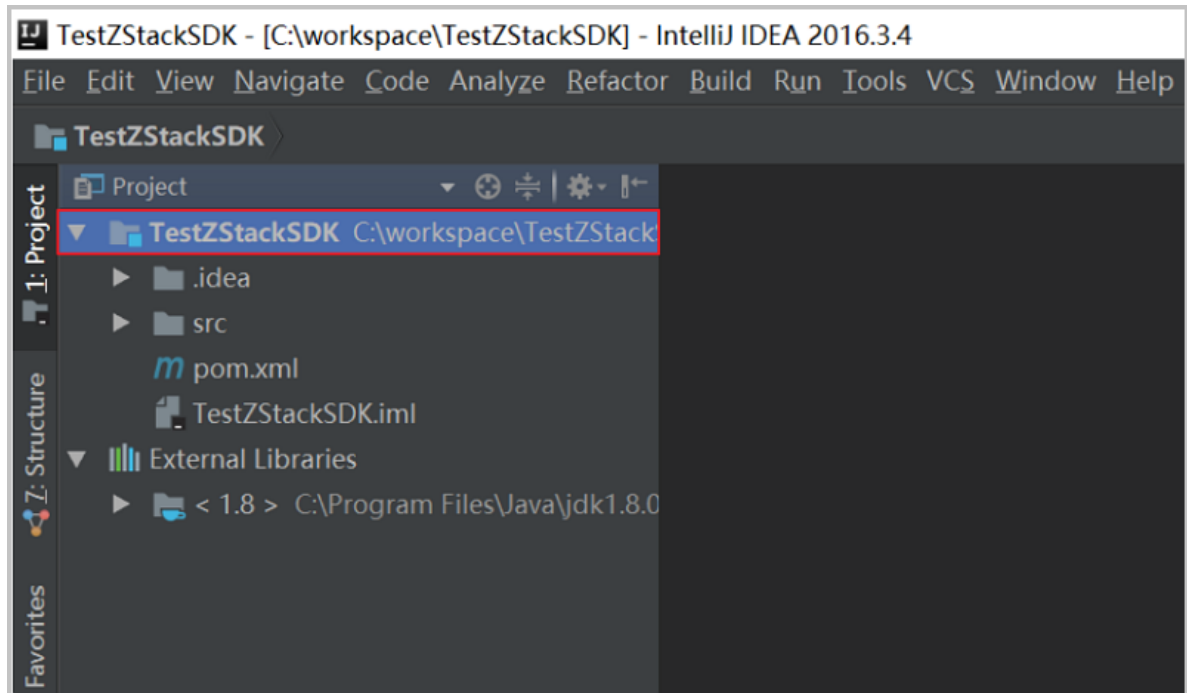
```
export ZS_SERVER_IP=MN_IP //MN_IP is the IP address of the  
management node.
```

3.2 SDK Use

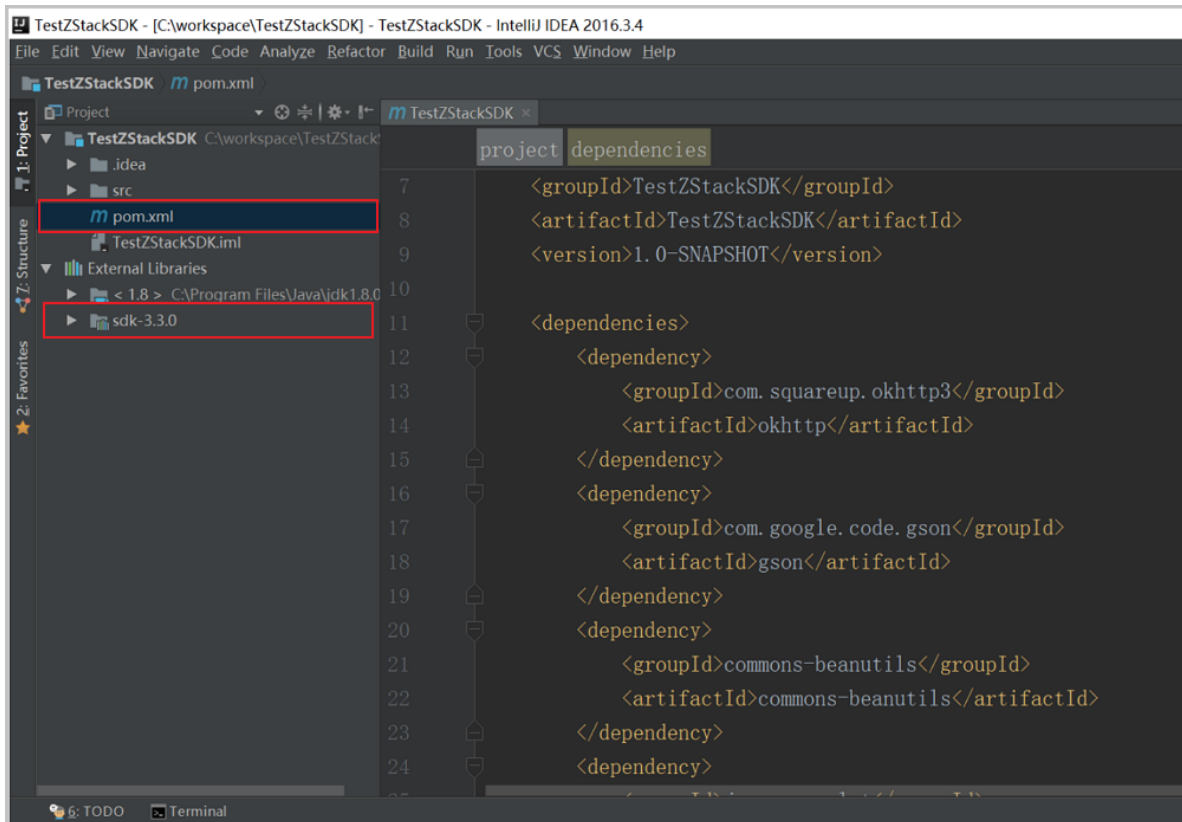
After the preparations are completed, refer to the following procedure to use ZStack Cloud SDK:

Java

1. Create a JAVA Maven project on IDEA, as shown in [JAVA Maven Project](#).

Figure 3-1: JAVA Maven Project

2. Add the SDK JAR dependency package to the External Libraries project, and add the third-party package to the pom.xml file, as shown in [Add Dependency Package](#).

Figure 3-2: Add Dependency Package

3. Refer to SDK samples in API Reference to call APIs.

Python

- Using Python SDK to call APIs does not require the preceding preparations and dependencies like that of Java SDK. You can directly refer the SDK samples in API Reference.

3.3 SDK Usage Sample

This topic takes the query of a VM instance as an example to describe the usage of ZStack Cloud Java SDK and Python SDK.

Use Java SDK to query VM instances

The following is the query script:

```
package org.zstack;

import org.zstack.sdk.*;
import java.math.BigInteger;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;
import java.util.List;
import java.io.UnsupportedEncodingException;
```

```

/**
 * Display how to use zstack Java SDK to check a VM list.*/
public class ZStackSDKDemo {
    public static void main(String[] args) {
        String zstackServerHostname = "Enter the IP address of zstack
management node.";
        String accountName = "Enter zstack account.";
        String password = "Enter zstack account password.";

        ZSClient.configure(
            new ZSConfig.Builder()
                .setHostname(zstackServerHostname)
                .setPort(8080)
                .setContextPath("zstack")
                .build()
        );

        String sessionId = getSessionByLoginAccount(accountName,
password);

        QueryVmInstanceAction action = new QueryVmInstanceAction();
        action.sessionId = sessionId;
        QueryVmInstanceAction.Result result = action.call();
        result.throwExceptionIfError();

        List<VmInstanceInventory> vmList =
result.value.getInventories();
        System.out.println(String.format("QueryVmInstanceAction action
succeeded, and %s VM instances are detected.",
            vmList != null ? vmList.size() : 0));
    }

    private static String getSessionByLoginAccount(String accountName,
String password) {
        LogInByAccountAction action = new LogInByAccountAction();
        action.accountName = accountName;
        action.password = encryptToSHA512(password);

        LogInByAccountAction.Result result = action.call();
        result.throwExceptionIfError();
        System.out.println("Login succeeded.");
        return result.value.getInventory().getUuid();
    }

    private static String encryptToSHA512(String input) {
        try {
            MessageDigest md = MessageDigest.getInstance("SHA-512");
            md.reset();
            md.update(input.getBytes("utf8"));
            BigInteger bigInteger = new BigInteger(1, md.digest());
            return String.format("%0128x", bigInteger);
        } catch (NoSuchAlgorithmException |
UnsupportedEncodingException e) {
            throw new RuntimeException(e);
        }
    }
}

```

The following describes the steps of calling the preceding script:

1. In the following the script, enter the correct parameters, namely the IP address of ZStack Cloud management node, ZStack Cloud account, and ZStack Cloud account password, to the corresponding locations.

```
public static void main(String[] args) {
    String zstackServerHostname = "Enter the IP address of zstack
    management node.";
    String accountName = "Enter zstack account.";
    String password = "Enter zstack accnount password.";
    ZSClient.configure(
        new ZSConfig.Builder()
            .setHostname(zstackServerHostname)
            .setPort(8080)
            .setContextPath("zstack")
            .build()
    );
}
```

2. The following script is the SDK information of APIs that you call. When you call different APIs, enter the corresponding SDK information. For more information, see the API Reference.

```
QueryVmInstanceAction action = new QueryVmInstanceAction();
action.sessionId = sessionId;
QueryVmInstanceAction.Result result = action.call();
result.throwExceptionIfError();
```

3. After you completed encoding, compile and execute the script.

Use Python SDK to query VM instances

The following is the query script:

```
import time
import os
import sys
import traceback
import hashlib

import zstacklib.utils.log as log

# comment out next line to print detail zstack cli http command to
screen.
log.configure_log('/var/log/zstack/zstack-sdk.log', log_to_console=
False)

import apibinding.api_actions as api_actions
from apibinding import api
import xml.etree.cElementTree as etree
import apibinding.inventory as inventory

zstack_server_ip = os.environ['ZS_SERVER_IP']
# Set the account name or username used to log into the Cloud.
user_name = 'admin'
# Set the password used to log into the Cloud.
user_password = 'password'
# Specify the UUID of the host where the VM instances running.
host_uuid = 'acb492ce8cd640c8bb73bae75ea00adf'
```

```

# Must keep.
def sync_call(apiCmd, session_uuid):
    api_instance = api.Api(host=zstack_server_ip, port='8080')
    if session_uuid:
        api_instance.set_session_to_api_message(apiCmd, session_uuid)
    (name, reply) = api_instance.sync_call(apiCmd, )
    if not reply.success: raise api.ApiError("Sync call at %s: [%s]
meets error: %s." % (
        zstack_server_ip, apiCmd.__class__.__name__, api.error_code
_to_string(reply.error)))
    # print("[Sync call at %s]: [%s] Success" % (zstack_server_ip,
apiCmd.__class__.__name__))
    return reply

# Must keep.
def async_call(apiCmd, session_uuid):
    api_instance = api.Api(host=zstack_server_ip, port='8080')
    api_instance.set_session_to_api_message(apiCmd, session_uuid)
    (name, event) = api_instance.async_call_wait_for_complete(apiCmd)
    time.sleep(1)
    if not event.success: raise api.ApiError("Async call at %s: [%s]
meets error: %s." % (
        zstack_server_ip, apiCmd.__class__.__name__, api.error_code
_to_string(reply.error)))
    # print("[Async call at %s]: [%s] Success" % (zstack_server_ip,
apiCmd.__class__.__name__))
    return event

# Must keep.
def login_as_admin():
    accountName = user_name
    password = user_password
    return login_by_account(accountName, password)

# Must keep.
#tag::login_by_account[]
def login_by_account(name, password, timeout=60000):
    login = api_actions.LoginByAccountAction()
    login.accountName = name
    # Login API will use encrypted password string.
    login.password = hashlib.sha512(password).hexdigest()
    login.timeout = timeout
    session_uuid = async_call(login, None).inventory.uuid
    return session_uuid
#end::login_by_account[]

# logout must be called after session isn't needed.
# Must keep.
#tag::logout[]
def logout(session_uuid):
    logout = api_actions.LogOutAction()
    logout.timeout = 60000
    logout.sessionUuid = session_uuid
    async_call(logout, session_uuid)
#end::logout[]

```

```

# Must keep.
def execute_action_with_session(action, session_uuid, async=True):
    if session_uuid:
        action.sessionUuid = session_uuid
        if async:
            evt = async_call(action, session_uuid)
        else:
            evt = sync_call(action, session_uuid)
    else:
        session_uuid = login_as_admin()
        try:
            action.sessionUuid = session_uuid
            if async:
                evt = async_call(action, session_uuid)
            else:
                evt = sync_call(action, session_uuid)
        except Exception as e:
            traceback.print_exc(file=sys.stdout)
            raise e
        finally:
            # New login must be logout. If the active login session
            # exceed the limit, no account login is allowed.
            # The default active logged session limit is 500.
            logout(session_uuid)

    return evt

# All Query API need conditions. This help to generate common
conditions.
# The op including: =, >, <, in, not in, like etc.
def gen_query_conditions(name, op, value, conditions=[]):
    new_conditions = [{'name': name, 'op': op, 'value': value}]
    new_conditions.extend(conditions)
    return new_conditions

#tag::query_zone[]
def query_zone(conditions=[], session_uuid=None):
    action = api_actions.QueryZoneAction()
    action.timeout = 3000
    action.conditions = conditions
    evt = execute_action_with_session(action, session_uuid)
    print 'Zone infomation: %s ' % evt.inventories
    return evt.inventories
#end::query_zone[]

def query_vm_by_host(host_uuid, conditions=[], session_uuid=None):
    action = api_actions.QueryVmInstanceAction()
    action.conditions = gen_query_conditions('hostUuid', '=',
host_uuid, conditions)
    evt = execute_action_with_session(action, session_uuid)
    return evt.inventories

if __name__ == '__main__':
    session_uuid = login_as_admin()
    vm_list = query_vm_by_host(host_uuid, session_uuid=session_uuid)
    for vm in vm_list:
        print 'Retrieved VM [uuid:%s]\n' % vm.uuid

```

```
logout(session_uuid)
```

The following describes the steps of calling the preceding script:

1. In the preceding script, set the account/user name and password used to log into the Cloud and specify the UUID of the host where the VM instances running.
2. Run the **python \$full path of the script file** command to query VM instances.

The following describes the details of the preceding script:

- Before you call ZStack Cloud APIs, make sure that you have obtained a session UUID. After you complete your task, you need to call the logout API to exit the session.



Note:

The system has predefined the maximum number of sessions that can be concurrently used to 500. You can modify the value in the global setting. If you call large numbers of login APIs in a short period of time while do not log out in time, once the session threshold is reached, you cannot use new sessions.

- The login API script:

```
def login_by_account(name, password, timeout=60000):
    login = api_actions.LogInByAccountAction()
    login.accountName = name
    # Login API will use encrypted password string.
    login.password = hashlib.sha512(password).hexdigest()
    login.timeout = timeout
    session_uuid = async_call(login, None).inventory.uuid
    return session_uuid
```



Note:

The login password is encrypted by using the SHA-512 algorithm.

- The logout API script:

```
def logout(session_uuid):
    logout = api_actions.LogOutAction()
    logout.timeout = 60000
    logout.sessionUuid = session_uuid
    async_call(logout, session_uuid)
```

- The API script of querying VM instances:

```
def query_zone(conditions=[], session_uuid=None):
    action = api_actions.QueryZoneAction()
    action.timeout = 3000
    action.conditions = conditions
    evt = execute_action_with_session(action, session_uuid)
    print 'Zone information: %s ' % evt.inventories
```

```
return evt.inventories
```

- The following describes the preceding three API scripts:
 - The `session_uuid` parameter is optional. You can reuse the session that is in use for login.
 - The `execute_action_with_session` function is an encapsulated API that can be used to execute all ZStack Cloud functions. Even if you do not specify the `session_uuid` parameter, this function can accomplish system login before the API calling and system logout after the calling. Therefore, we recommend that you use this function for completing API callings.
 - For all query APIs, you need to use the `action.conditions` parameter to construct a query condition, for example, `action.conditions = ["name=TestZone", "state=Enabled"]`. If you need to retrieve the information of all resources, you can specify an empty array. For more information, see [Query API](#).
 - The returned value of an API calling indicates the execution results of the API calling. For example, the returned result of a query API is `evt.inventories`, which is an array. You can use the `count` function to calculate the size of the array. For most non-query APIs, the returned result is JSON-formatted data. For example, the returned result of the API `CreateVmInstanceAction` is `evt.inventory`, which is a JSON object. For more information, see [RESTful API Overview](#).

4 API Call with AccessKey

After you created an AccessKey successfully, a third-party platform can call ZStack Cloud private cloud APIs by using the AccessKey. The methods are as follows:

- Use SDK:

Take CreateVmInstance as an example. When you call ZStack Cloud private cloud APIs by using an AccessKey, enter **accessKeyId** and **accessKeySecret**. For example,

- Java SDK

```
CreateVmInstanceAction action = new CreateVmInstanceAction();
action.name = "vm1";
action.instanceOfferingUuid = "ae97ced44efc3314b8f7798972b4ba1a";
action.imageUuid = "da119f7906513eccabf271991c35a65e";
action.l3NetworkUuids = asList("cc0e4c5e77df3af68e59668e7f9e06c5");
action.dataDiskOfferingUuids = asList("19d22d051b063d379a2816daaf431838", "905d94a6abb5398fa1995f6398e3f6fc");
action.clusterUuid = "a0468dc645223f67bd0f2ab95276bbae";
action.description = "this is a vm";
action.strategy = "InstantStart";
action.accessKeyId = "Fnxc7KIQAdGTVxfX80jC";
action.accessKeySecret = "Do0AJUGVPrT9iJZlc1Q0tk7kzEusYidyqJxSmK0b";
CreateVmInstanceAction.Result res = action.call();
```

- Python SDK

```
CreateVmInstanceAction action = CreateVmInstanceAction()
action.name = "vm1"
action.instanceOfferingUuid = "ae97ced44efc3314b8f7798972b4ba1a"
action.imageUuid = "da119f7906513eccabf271991c35a65e"
action.l3NetworkUuids = [cc0e4c5e77df3af68e59668e7f9e06c5]
action.dataDiskOfferingUuids = [19d22d051b063d379a2816daaf431838,
905d94a6abb5398fa1995f6398e3f6fc]
action.clusterUuid = "a0468dc645223f67bd0f2ab95276bbae"
action.description = "this is a vm"
action.strategy = "InstantStart"
action.accessKeyId = "Fnxc7KIQAdGTVxfX80jC"
action.accessKeySecret = "Do0AJUGVPrT9iJZlc1Q0tk7kzEusYidyqJxSmK0b"
CreateVmInstanceAction.Result res = action.call()
```

- Call directly ZStack Cloud private cloud RESTful APIs.

1. Create an AccessKey.

```
CreateAccessKey accountUuid=df4fb9bbff14e97a67ab894c7b8c528
userUuid=df4fb9bbff14e97a67ab894c7b8c528
{
  "inventory": {
    "AccessKeyId": "N3Tf05yXZUmSjCf6mYIB",
    "AccessKeySecret": "XAlrsYvswmnEV3X1KWNs1WfZHD6aBI
IphmI0rX9S",
```



```

        "accountUuid": "dff4fb9bbff14e97a67ab894c7b8c528",
        "createDate": "Sep 6, 2018 1:50:06 PM",
        "lastOpDate": "Sep 6, 2018 1:50:06 PM",
        "userUuid": "dff4fb9bbff14e97a67ab894c7b8c528",
        "uuid": "ae353717ca7b4182bb87fb5d010235e8"
    },
    "success": true
}

```

2. Generate **date**.

```
python get_time.py
Thu, 06 Sep 2018 13:54:10 PRC
```

```

import datetime
import time

date = time.time()
#EEE, dd MMM yyyy HH:mm:ss z
str = datetime.datetime.fromtimestamp(date).strftime('%a, %d %b %Y
%H:%M:%S PRC')
print str

```



Note:

The time format must be **EEE, dd MMM yyyy HH:mm:ss zzz**.

3. Generate **digest**.

```

# python get_accesskey.py "vvSZpmj4cnB53qUDmm6E" "8heumeFTvI
eZxkTGfEYvVi9qVVPd9ffQNDALSPPb" \
"GET" "Fri, 06 Aug 2021 17:58:34 PRC" "/v1/vm-instances"
args: Namespace(aceskey_id='vvSZpmj4cnB53qUDmm6E', aceskey_s
ecret='8heumeFTvIeZxkTGfEYvVi9qVVPd9ffQNDALSPPb', \
date='Fri, 06 Aug 2021 17:58:34 PRC', method='GET', uri='/v1/vm-
instances')
Signature: hPToRHeHdV49D4u20G80lE0yJho=
Authoration ZStack vvSZpmj4cnB53qUDmm6E:hPToRHeHdV49D4u20G80
lE0yJho=

```

```

#!/usr/bin/python
import base64
import hmac
import sha
import argparse
from hashlib import sha1

parser = argparse.ArgumentParser(description='calculate zstack
access key digit.')
parser.add_argument('aceskey_id')
parser.add_argument('aceskey_secret')
parser.add_argument('method')
parser.add_argument('date')
parser.add_argument('uri')

args = parser.parse_args()

print "args: %s" % args
h = hmac.new(args.aceskey_secret, args.method + "\n"

```

```

+ args.date + "\n"
+ args.uri, sha1)
Signature = base64.b64encode(h.digest())
print "Signature: %s" % Signature
print "Authoration %s" % ("ZStack " + args.aceskey_id + ":" +
Signature)

```

4. Send requests.

```

curl -H "Authorization:ZStack
vvSZpmj4cnB53qUDmm6E:hPToRHeHdV49D4u20G80lE0yJho=" \
-H "Content-Type:application/x-www-form-urlencoded" \
-H "Date:Fri, 06 Aug 2021 17:58:34 PRC" \
-X GET http://172.20.11.134:8080/zstack/v1/vm-instances

```



Note:

API request headers:

- The value of the Authorization field must be consistent with the value of the Authorization field generated in [digest](#). The value of the Authorization field is in the format of "ZStack " + args.aceskey_id + ":" + Signature.
- The value of the Date field must be consistent with the timestamp generated in [digest](#).

5 Resource Center

5.1 Resource Pool

5.1.1 VM Instance Operations

5.1.1.1 CreateVmInstance

API Request

URLs

```
POST zstack/v1/vm-instances
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "vm1",
    "instanceOfferingUuid": "ae97ced44efc3314b8f7798972b4ba1a",
    "imageUuid": "da119f7906513eccabf271991c35a65e",
    "l3NetworkUuids": [
      "cc0e4c5e77df3af68e59668e7f9e06c5"
    ],
    "dataDiskOfferingUuids": [
      "19d22d051b063d379a2816daaf431838",
      "905d94a6abb5398fa1995f6398e3f6fc"
    ],
    "clusterUuid": "a0468dc645223f67bd0f2ab95276bbae",
    "description": "this is a vm",
    "strategy": "InstantStart"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"vm1","instanceOfferingUuid":"ae97ced44efc3314b8f7798972b4ba1a","imageUuid":
["cc0e4c5e77df3af68e59668e7f9e06c5"],"dataDiskOfferingUuids":
```

```
[ "19d22d051b063d379a2816daaf431838", "905d94a6abb5398fa1995f6398e3f6fc"], "clusterU
is a vm", "strategy": "InstantStart" } }' \
http://localhost:8080/zstack/v1/vm-instances
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The VM instance name		0.6
instanceOf feringUuid	String	body (contained in the params structure)	The instance offering UUID. Specifies the CPU, memory, and other parameters of the VM instance.		0.6
imageUuid	String	body (contained in the params structure)	The image UUID. Specifies the image from which the root volume of the VM instance is created.		0.6
l3NetworkU uids	List	body (contained in the params structure)	The L3 network UUID list. You can specify one or more L3 networks . Then the VM instance		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			will create a NIC on each network.		
type	String	body (contained in the params structure)	Optional. The VM instance type. This parameter is a reserved field for internal use.	- UserVm - ApplianceVm	0.6
rootDiskOfferingUuid	String	body (contained in the params structure)	Optional. The disk offering UUID of the root volume. - If the image type specified in imageUuid is ISO, you must specify rootDiskOfferingUuid to determine the size of the root volume to be created. - If the image type is not ISO, this parameter is optional.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
dataDiskSizes	List	body (contained in the params structure)	Optional. List of custom volume sizes . You can specify one or more volume sizes (repeatable) to create one or more data volumes for the VM instances.		4.4.24
dataDiskOfferingUuids	List	body (contained in the params structure)	Optional. The disk offering UUID list. You can specify one or more disk offering UUIDs to create one or more data volumes for the VM instance. (The UUIDs can be repeated.)		0.6
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID. If specified , the VM instance will be created in the		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			specified zone.		
clusterUuid	String	body (contained in the params structure)	Optional. The cluster UUID. If specified, the VM instance will be created in the specified cluster. This parameter can override zoneUuid.		0.6
hostUuid	String	body (contained in the params structure)	Optional. The host UUID. If specified, the VM instance will be created on the specified host. This parameter can override zoneUuid and clusterUuid.		0.6
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	Optional. The primary storage UUID.		1.8

Name	Type	Location	Description	Optional Value	Starting Version
			If specified, the root volume of the VM instance will be created on the specified primary storage.		
description	String	body (contained in the params structure)	Optional. The detailed description of the VM instance.		0.6
defaultL3NetworkUuid	String	body (contained in the params structure)	Optional. The UUID of the default L3 network. - If multiple L3 networks are specified in I3NetworkUuids, this parameter specifies the L3 network that provides default routing. - If not specified, the first		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			network specified in <code>l3NetworkUuids</code> will be used as the default network.		
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the VM instance will use the specified value as UUID.		0.6
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.4.0
systemTags	List	body	Optional. The system tags of the VM instance.		0.6
userTags	List	body	Optional. The user tags of the VM instance.		0.6
strategy	String	body (contained in the params structure)	Optional. The VM instance creation strategy. Start the VM instance		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			immediately after creation. Do not start the VM instance after creation.		
dataVolumeSystemTagsOnIndex	Map	body (contained in the params structure)	Optional. The required system label mapping required for data volume index.		4.4.24

**Note:**

- When you create a VM instance in ZStack Cloud, you can specify an affinity group by adding the **affinityGroup** option to **SystemTags**.
 - Format of the **affinityGroup** option: `affinityGroupUuid::UUID`
 - Example: `affinityGroupUuid::5fd71606d5af451d981413f35367a8d6`
- When you create a VM instance in ZStack Cloud, you can specify a PCI device by adding the **PCI** option to **SystemTags**.
 - Format of the **PCI** option: `pciDevice::UUID`
 - Example: `pciDevice::634b48a7bca139d9944a0f95b0c2dddf`
- When you create a VM instance in ZStack Cloud, you can bind a CPU by adding the **vmCpuPinning** option to **SystemTags**.
 - Format of the **vmCpuPinning** option: `vmCpuPinning::binding policy`
 - Example: `vmCpuPinning::1:3;1-3:4-7,^6`
 - Only the administrator can update, create, or delete the SystemTag. When you clone a VM instance, you will also clone this SystemTag.
- When you create a VM instance in ZStack Cloud, you can use the userdata feature by adding the **userdata** option to **SystemTags**.

- Format of the **userdata** option: `userdata::base64 encoded script`
- Example: `userdata::I2Nsb3VkLWNvbWZpZwp1c2VyczoKIC0gbmFtZTogdGVzdAogICBzaGVsbDogL2Jpb290QDEwLTAtMC0x0Apib290Y21k0gogLSBta2RpciAvdG1wL3RlbXAgCndyaXRlX2ZpbGVz0gogLSBwYXRo0iAvdG1wL1pTdGFja19jb25mawcKICAgY29udGVudDogfAogICAgICAgSGVsbG8sd29ybGQhCiAgIHBlcm1pc3Npb25z0iAnMDc1NScKaG9zdG5hbWU6IFBlcmYtdGVzdApkaXNhYmxlX3Jvb3Q6IGZhbHNlCnNzaF9wd2F1dGg6IHllcwpjaHBhc3N3ZDoKICBsaXN00iB8CiAgICAgIHJvb3Q6d29yZAogIGV4cGlyZTogRmFsc2UKcnVuY21k0gogLSBlY2hvIGxzIC1sIC8gPi9yb290L2xpc3Quc2g=`
- When you create a VM instance in ZStack Cloud, you can specify an SSH key by adding the **sshkey** option to **SystemTags**.
 - Format of the **sshkey** option: `sshkey::public key content`
 - Example: `sshkey::ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDPAGDmLG2yW1fGQsek4PdBL6wiVMHuLr1566ITPAf8A20i5BaExoUwdPjA960aUSrtlsKlrXUMGEJwN1r1TrL9JdUMg7jww3QysGuS3P+bRsBe1TSGHS8Lnc9JY9HpoL4ZN/j0zTaZfju9eDzbVsbDrF91x3yDeeGH6IG6gWJn96HPfrlg7REfo04eBdfLstaaFC0lAXoB0rnGVnzRdQfwTNRGmMAyFzCV83H0hVzBJuL5VqtAT8a0lSC4QgZTNR0h6zbkTUUYyQu0QS65EaJCTyAhksuidRzyjLX3p3oMileKdJNugRa5IDHhGJXExIK+58Nvaqfj/03yN8If07sj root@hpe-77`
- When you create a VM instance in ZStack Cloud, you can specify the high availability (HA) level by adding the **ha** option to **SystemTags**.
 - Format of the **ha** option: `ha::NeverStop`
 - Example: `ha::NeverStop`
- When you create a VM instance in ZStack Cloud, you can specify the console mode by adding the **vmConsoleMode** option to **SystemTags**.
 - Format of the **vmConsoleMode** option: `vmConsoleMode::console mode`
 - Example: `vmConsoleMode::spice` or `vmConsoleMode::vnc`
- When you create a VM instance in ZStack Cloud, you can specify the USB redirection by adding the **usbRedirect** option to **SystemTags**.

- Format of the **usbRedirect** option: `usbRedirect::true`
- Example: `usbRedirect::true`
- When you create a VM instance in ZStack Cloud, you can specify the console password by adding the **consolePassword** option to **SystemTags**.
 - Format of the **consolePassword** option: `consolePassword::console password`
 - Example: `consolePassword::123456`
- When you create a VM instance in ZStack Cloud, you can specify an IP address for the L3 network by adding the **staticIp** option to **SystemTags**. If the network address type is double stack (IPv4+IPv6), you can add two **staticIp** options, which are IPv4 and IPv6, respectively.
 - Format of the **staticIp** option: `staticIp::L3 network UUID::specified IP`
 - Example: `staticIp::81a21a81cde84c1084c191354053a3b5::172.20.196.0`
- When you create a VM instance in ZStack Cloud, you can specify the MAC address of the corresponding NIC on the L3 network by adding the **customMac** option to **SystemTags**.
 - Format of the **customMac** option: `customMac::L3 network UUID::specified MAC address`
 - Example: `customMac::81a21a81cde84c1084c191354053a3b5::fa:00:37:ee:9f:00`
- When you create a VM instance in ZStack Cloud, you can specify the volume provisioning strategy by adding the **volumeProvisioningStrategy** option to **SystemTags**. The SystemTag is passed by using the **rootVolumeSystemTags** parameter.
 - Format of the **volumeProvisioningStrategy** option: `volumeProvisioningStrategy::ThinProvisioning, volumeProvisioningStrategy::ThickProvisioning`
 - Example: `volumeProvisioningStrategy::ThinProvisioning, volumeProvisioningStrategy::ThickProvisioning`
- When you create a VM instance in ZStack Cloud, you can specify the Ceph pool where the root volume is located by adding the **rootPoolName** option to **SystemTags**. The SystemTag is passed by using the **rootPoolName** parameter.
 - Format of the **rootPoolName** option: `ceph::rootPoolName::xxx. Here, xxx is the pool name.`
 - Example: `ceph::rootPoolName::pri-v-r-26e11ca6814d4e1ba504d845f7848db3`

- When you create a VM instance in ZStack Cloud, you can specify the mother board type by adding the **vmMachineType** option to **SystemTags**. The SystemTag is passed by using the **vmMachineType** parameter.
 - Format of the **vmMachineType** option: `vmMachineType::xx`. Here, `xx` is `pc` or `q35`.
 - Example: `vmMachineType::pc`
- When you create a VM instance in ZStack Cloud, you can specify the CD-ROM list by adding the **cdroms** option to **SystemTags**. The SystemTag is passed by using the **cdroms** parameter.
 - Format of the **cdroms** option: `cdroms::${cdrom-1 config}::${cdrom-2 config}::${cdrom-3 config}`. The CD-ROM configuration (cdrom config) has three options: `iso uuid` (the UUID of the ISO to be attached by the CD-ROM), `empty` (do not select any ISO), and `none` (do not configure the CD-ROM).
 - Examples:
 - Create an empty list: `cdrom: cdroms::empty::none::none`
 - Create three empty lists: `cdrom: cdroms::empty::empty::empty`
 - Create three lists with ISO attached: `cdrom: cdroms::iso_1_uuid::iso_2_uuid::iso_3_uuid`
- When you create a VM instance in ZStack Cloud, you can choose not to create any CD-ROM by adding the **createWithoutCdRom** option to **SystemTags**. The SystemTag is passed by using the **createWithoutCdRom** parameter.
 - Format of the **createWithoutCdRom** option: `createWithoutCdRom::true`
 - Example: `createWithoutCdRom::true`
- When you create a VM instance in ZStack Cloud, you can specify a MDEV device by adding the **mdevDevice** option to **SystemTags**.
 - Format of the **mdevDevice** option: `mdevDevice::MDEV_DEV_UUID`
 - Example: `mdevDevice::e2af8f869eff49d2a3d6f86cadcd27090`
- When you create a VM instance in ZStack Cloud, you can specify whether to automatically uninstall the physical PCI device allocated from the device specifications when the VM instance is shut down. You can also delete or change the configurations of existing VM instances. Note that you can add the **autoReleaseSpecRelatedPhysicalPciDevice** option to **SystemTags**.

- Format of the **autoReleaseSpecReleatedPhysicalPciDevice** option: `autoReleaseSpecReleatedPhysicalPciDevice`
- Example: `autoReleaseSpecReleatedPhysicalPciDevice`
- When you create a VM instance in ZStack Cloud, you can specify whether to automatically uninstall the virtual PCI device allocated from the device specifications when the VM instance is shut down. You can also delete or change the configurations of existing VM instances. Note that you can add the **autoReleaseSpecReleatedVirtualPciDevice** option to **SystemTags**.
 - Format of the **autoReleaseSpecReleatedVirtualPciDevice** option: `autoReleaseSpecReleatedVirtualPciDevice`
 - Example: `autoReleaseSpecReleatedVirtualPciDevice`
- When you create a VM instance in ZStack Cloud, you can specify the MDEV device specification and the device count allocated from the specification by adding the **mdevDeviceSpec** option to **SystemTags**.
 - Format of the **mdevDeviceSpec** option: `mdevDeviceSpec::MDEV_SPEC_UUID::MDEV_DEV_NUM`
 - Example: `mdevDeviceSpec::e2af8f869eff49d2a3d6f86cadcd27090::4`
- When you create a VM instance in ZStack Cloud, you can specify the PCI device specification and the device count allocated from the specification by adding the **pciDeviceSpec** option to **SystemTags**.
 - Format of the **pciDeviceSpec** option: `pciDeviceSpec::PCI_SPEC_UUID::PCI_DEV_NUM`
 - Example: `pciDeviceSpec::e2af8f869eff49d2a3d6f86cadcd27090::4`
- When you create a VM instance in ZStack Cloud, you can specify the resource priority by adding the **vmPriority** option to **SystemTags**.
 - Format of the **vmPriority** option: `vmPriority::PRIORITY_LEVEL`. Here, `PRIORITY_LEVEL` can be Normal or High.
 - Example: `vmPriority::Normal`
- When you create a VM instance in ZStack Cloud, the cloud records the version of the GuestTools ISO installed in the VM instance, compares the ISO version with that of the host, and decides whether to upgrade the GuestTools ISO. Note that you can add the **GuestTools** option to **SystemTags**.

- Format of the **GuestTools** option: `GuestTools::TOOLS_VERSION`. Here, the initial value of `TOOLS_VERSION` is 1.0.0. This value will change as the version of GuestTools is upgraded.
- Example: `GuestTools::1.0.0`
- Note: When a VM instance is created from an image, if the image has the GuestTools tag, the value of the GuestTools tag will be copied from the image to the new VM instance.
- When you create a VM instance in ZStack Cloud, you can set a cross-cluster HA policy by adding the **resourceBindings** option to **SystemTags**.
 - Format of the **resourceBindings** option: `resourceBindings::Cluster:clusterUuid`. Here, `clusterUuid` is the UUID of the cluster.
 - Example: `resourceBindings::Cluster:2sdasf231jvznsdak`
- When you create a VM instance in ZStack Cloud, you can specify a hostname by adding the **hostname** option to **SystemTags**.
 - Format of the **hostname** option: `hostname::xxxxx`. Here, `xxxxx` is the hostname.
 - Example: `hostname::host.zstack.org`
- When you create a VM instance in ZStack Cloud, you can enable SR-IOV by adding the **enableSRIOV** option to **SystemTags**.
 - Format of the **enableSRIOV** option: `enableSRIOV:: {L3_NETWORK_UUID}`
 - Example: `enableSRIOV::9e19dafef81c64fed8e34f72e27582339`
- When you create a VM instance in ZStack Cloud, you can use the **systemTags** parameter to specify whether the VM instance uses the **virtio** driver. You can set the value of the **systemTags** parameter to **driver**.
 - Format: `driver::virtio`.
 - Example: `driver::virtio`.
- When you create a VM instance in ZStack Cloud, you can set vNUMA for the VM instance. You can set the value of the **systemTags** parameter to **vmNumaEnable**.
 - Format: `vmNumaEnable::boolean`
 - Example: `vmNumaEnable::true`
- When you create a VM instance in ZStack Cloud, you can set EmulatorPin for the VM instance. You can set the value of the **systemTags** parameter to **vmEmulatorPinning**.
 - Format: `vmEmulatorPinning::CPU`

- Example: `vmEmulatorPinning::1,2,3,4,5,6,7`
- When you create a VM instance in ZStack Cloud, you can attach an XML Hook to the VM instance. You can set the value of the **systemTags** parameters to **xmlHook**.
 - Format: `xmlhook::{xmlhookUuid}`
 - Example: `xmlhook::35a678b482514da5aee22a6ab17d71e1`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "6efab7159c6932429c6b0e7e0b64b660",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "d10bd7a9565138efaf6171db8e18fa7d",
    "clusterUuid": "692c71639d873bf6a356cd8e285d0d9c",
    "imageUuid": "28061e65e48037eda71b53a0732bf087",
    "hostUuid": "f877177de7bd377e811bc6313878b2b1",
    "lastHostUuid": "a3ccdc90a600334f994c69aee4270ac5",
    "instanceOfferingUuid": "9a874241f867333ca0bf0ab2134f8515",
    "rootVolumeUuid": "f52d7c94d69d3bbb97d36a270fe910c3",
    "platform": "Linux",
    "defaultL3NetworkUuid": "2ac1b70fdb0f38769a29c6ebd0262cca",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "0dfbb8a297e9349ea8799c4ce48c6d10",
        "vmInstanceUuid": "6efab7159c6932429c6b0e7e0b64b660",
        "usedIpUuid": "39b57596a8ba35289bd9f40efceeae03",
        "l3NetworkUuid": "2ac1b70fdb0f38769a29c6ebd0262cca",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "f52d7c94d69d3bbb97d36a270fe910c3",
        "name": "Root-Volume-For-VM-6efab7159c6932429c6b0e7e0b64b660",
        "primaryStorageUuid": "4ed5bbb150a034b5917e7e6c9c4b8170",
        "vmInstanceUuid": "6efab7159c6932429c6b0e7e0b64b660",
        "diskOfferingUuid": "0521187274d73f5b936c22b145384c74",
        "rootImageUuid": "28061e65e48037eda71b53a0732bf087",

```



```

      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-f52d7c94d69d3bbb97d36a270fe910c3/f52d7c94d6
9d3bbb97d36a270fe910c3.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current	0.6

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String	The UUID of the host on which the VM instance was running last time.	0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String	The platform on which the VM instance is running.	0.6
defaultL3NetworkUuid	String	The UUID of the default L3 network.	0.6
type	String	The VM instance type.	0.6
hypervisorType	String	The hypervisor type of the VM instance.	0.6
memorySize	Long	The memory size.	0.6
cpuNum	Integer	The CPU count.	0.6
cpuSpeed	Long	The CPU speed.	0.6

Name	Type	Description	Starting Version
allocatorStrategy	String	The allocator strategy.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String	The state of the VM instance.	0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String	The IP address.	0.6
mac	String	The MAC address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
metaData	String	The reserved field for internal use.	0.6
deviceId	Integer	The device ID. - An integer that indicates the order of NICs in the Ethernet device of the guest operating system. - For example, 0 usually means eth0 , and 1 usually means eth1.	0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String	The UUID of the root volume image.	0.6
installPath	String	The installation path.	0.6
type	String	The volume type.	0.6
format	String	The volume format.	0.6
size	Long	The virtual size of the volume.	0.6
actualSize	Long	The actual size of the volume.	0.6
deviceId	Integer	The device ID.	0.6
state	String	The state of the volume.	0.6
status	String	The status of the volume.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
isShareable	Boolean	Whether the volume can be shared.	0.6

SDK Sample

Java SDK

```
CreateVmInstanceAction action = new CreateVmInstanceAction();
action.name = "vm1";
action.instanceOfferingUuid = "ae97ced44efc3314b8f7798972b4ba1a";
action.imageUuid = "da119f7906513eccabf271991c35a65e";
action.l3NetworkUuids = asList("cc0e4c5e77df3af68e59668e7f9e06c5");
action.dataDiskOfferingUuids = asList("19d22d051b063d379a2816daaf431838", "905d94a6abb5398fa1995f6398e3f6fc");
action.clusterUuid = "a0468dc645223f67bd0f2ab95276bbae";
action.description = "this is a vm";
action.strategy = "InstantStart";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmInstanceAction.Result res = action.call();
```

Python SDK

```
CreateVmInstanceAction action = CreateVmInstanceAction()
action.name = "vm1"
action.instanceOfferingUuid = "ae97ced44efc3314b8f7798972b4ba1a"
action.imageUuid = "da119f7906513eccabf271991c35a65e"
action.l3NetworkUuids = ["cc0e4c5e77df3af68e59668e7f9e06c5"]
action.dataDiskOfferingUuids = ["19d22d051b063d379a2816daaf431838",
905d94a6abb5398fa1995f6398e3f6fc]
action.clusterUuid = "a0468dc645223f67bd0f2ab95276bbae"
action.description = "this is a vm"
action.strategy = "InstantStart"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmInstanceAction.Result res = action.call()
```

5.1.1.2 CreateVmInstanceFromVolume

API Request

URLs

```
POST zstack/v1/vm-instances/from/volume
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "vm1",
```

```

    "description": "this is a vm",
    "instanceOfferingUuid": "80c606e35bc038bbb102e31cae191ea2",
    "l3NetworkUuids": [
        "333817afcaf63f13a101f674761c8a77"
    ],
    "volumeUuid": "23984cd68b903fd4883aa962c70d83fc",
    "clusterUuid": "ada53eb6c42e34d3946ff1280718d9f2",
    "strategy": "InstantStart"
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"vm1","description":"this is a
vm","instanceOfferingUuid":"80c606e35bc038bbb102e31cae191ea2","l3NetworkUuids":
["333817afcaf63f13a101f674761c8a77"],"volumeUuid":"23984cd68b903fd4883aa962c70d83
http://localhost:8080/zstack/v1/vm-instances/from/volume

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		3.10.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.10.0
instanceOfferingUuid	String	body (contained in the params structure)	Optional. The instance offering UUID . Note: This parameter is optional if you choose the CPU number		3.10.0

Name	Type	Location	Description	Optional Value	Starting Version
			and memory size.		
cpuNum	Integer	body (contained in the params structure)	Optional. The CPU number or memory size		3.10.0
memorySize	Long	body (contained in the params structure)	. Note: This parameter is optional if you choose instanceOf feringUuid.		3.10.0
l3NetworkUuids	List	body (contained in the params structure)	The L3 network UUID. Specifies one or more L3 networks . The VM instance will create one NIC on each L3 network.		3.10.0
type	String	body (contained in the params structure)	Optional. The VM type. The reserved field, which is no need to specify.	- UserVm - ApplianceVm	3.10.0
volumeUuid	String	body (contained in the params structure)	The volume UUID.		4.1.0
platform	String	body (contained in	Optional. The volume	- Linux - Windows	3.10.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	system platform.	Other	
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID. If specified , the VM instance will will be created in the specified zone.		3.10.0
clusterUuid	String	body (contained in the params structure)	Optional. The cluster UUID. If specified, the VM instance will be created in the specified cluster. The resource priority of this parameter is higher than zoneUuid.		3.10.0
hostUuid	String	body (contained in the params structure)	Optional. The host UUID. If specified, the VM instance will be created in the specified		3.10.0

Name	Type	Location	Description	Optional Value	Starting Version
			host. The resource priority of this parameter is higher than zoneUuid and clusterUuid .		
primaryStorageUuid	String	body (contained in the params structure)	Optional. The primary storage UUID. If specified, the root volume of the VM instance will be created in the specified primary storage.		3.10.0
defaultL3NetworkUuid	String	body (contained in the params structure)	Optional. The default L3 network UUID. When l3NetworkUuids specifies multiple L3 networks, this parameter specifies to provide the		3.10.0

Name	Type	Location	Description	Optional Value	Starting Version
			default L3 network. If not specified, the first network of <code>l3NetworkUids</code> will be selected as the default network.		
strategy	String	body (contained in the params structure)	Optional. The VM creation strategy. - After the VM instance is created, the VM instance is started immediately. - After the VM instance is created, the VM instance will not be started.	- InstantStart - CreateStopped	3.10.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the VM instance will use this		3.10.0

Name	Type	Location	Description	Optional Value	Starting Version
			field as UUID.		
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.10.0
systemTags	List	body	Optional. The system tags.		3.10.0
userTags	List	body	Optional. The user tags.		3.10.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "33614668ae7d386c91d662928f60b23f",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "62f048b02e353ba4bdb9184ad7f54170",
    "clusterUuid": "ff753adc06c83d5ab2b0291f57b4745a",
    "imageUuid": "9291412f184f37a284b484b0788b24ca",
    "hostUuid": "0f9f5c6561d733d18a94577c4cd0976f",
    "lastHostUuid": "dc452dde2f7832b29bf91a0ddb6a004c",
    "instanceOfferingUuid": "b35adab33ba139b98ee20c1e2be702d3",
    "rootVolumeUuid": "f54fc6d488133688a6a7635f5c44a288",
    "platform": "Linux",
    "defaultL3NetworkUuid": "d82e3c622f933054a1939fb66e07681e",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "16198ebdef9c3f8084acd1a919eff4f2",
        "vmInstanceUuid": "33614668ae7d386c91d662928f60b23f",
        "usedIpUuid": "8eb3618f949a3e588acf9d8b0ee8293f",
        "l3NetworkUuid": "d82e3c622f933054a1939fb66e07681e",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",

```

```

    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  "allVolumes": [
    {
      "uuid": "f54fc6d488133688a6a7635f5c44a288",
      "name": "Root-Volume-For-VM-33614668ae7d386c91d662928f60b23f",
      "primaryStorageUuid": "769061e63aec3278b1e6c3619d6da766",
      "vmInstanceUuid": "33614668ae7d386c91d662928f60b23f",
      "rootImageUuid": "9291412f184f37a284b484b0788b24ca",
      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-f54fc6d488133688a6a7635f5c44a288/f54fc6d488
133688a6a7635f5c44a288.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.10.0
inventory	VmInstanceInventory	See inventory .	3.10.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.10.0
description	String	The brief description of the error.	3.10.0
details	String	The details about the error.	3.10.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.10.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.10.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.10.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.10.0
name	String	The resource name.	3.10.0
description	String	The detailed description of the resource.	3.10.0
zoneUuid	String	The zone UUID.	3.10.0
clusterUuid	String	The cluster UUID.	3.10.0
imageUuid	String	The image UUID.	3.10.0
hostUuid	String	The host UUID.	3.10.0
lastHostUuid	String		3.10.0
instanceOfferingUuid	String	The instance offering UUID.	3.10.0
rootVolumeUuid	String	The root volume UUID.	3.10.0
platform	String		3.10.0
defaultL3NetworkUuid	String		3.10.0
type	String		3.10.0
hypervisorType	String		3.10.0
memorySize	Long		3.10.0
cpuNum	Integer		3.10.0

Name	Type	Description	Starting Version
cpuSpeed	Long		3.10.0
allocatorStrategy	String		3.10.0
createDate	Timestamp	The creation date.	3.10.0
lastOpDate	Timestamp	The last operation date.	3.10.0
state	String		3.10.0
vmNics	List	See vmNics .	3.10.0
allVolumes	List	See allVolumes .	3.10.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.10.0
vmInstanceUuid	String	The VM instance UUID.	3.10.0
l3NetworkUuid	String	The L3 network UUID.	3.10.0
ip	String	The IP address.	3.10.0
mac	String	The MAC address.	3.10.0
hypervisorType	String	The hypervisor type.	3.10.0
netmask	String	The netmask.	3.10.0
gateway	String	The gateway.	3.10.0
metaData	String	The reserved field for internal use.	3.10.0
ipVersion	Integer	The IP version.	3.10.0
deviceId	Integer	The device ID.	3.10.0
createDate	Timestamp	The creation date.	3.10.0
lastOpDate	Timestamp	The last operation date.	3.10.0
usedIps	List	See usedIps .	3.10.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.10.0
ipRangeUuid	String	The IP range UUID.	3.10.0
l3NetworkUuid	String	The L3 network UUID.	3.10.0
ipVersion	Integer	The IP version.	3.10.0
ip	String	The IP address.	3.10.0
netmask	String	The netmask.	3.10.0
gateway	String	The gateway.	3.10.0
usedFor	String		3.10.0
ipInLong	long		3.10.0
vmNicUuid	String	The VM NIC UUID.	3.10.0
createDate	Timestamp	The creation date.	3.10.0
lastOpDate	Timestamp	The last operation date.	3.10.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.10.0
name	String	The resource name.	3.10.0
description	String	The detailed description of the resource.	3.10.0
primaryStorageUuid	String	The primary storage UUID.	3.10.0
vmInstanceUuid	String	The VM instance UUID.	3.10.0
diskOfferingUuid	String	The disk offering UUID.	3.10.0
rootImageUuid	String	The root image UUID.	3.10.0
installPath	String	The installation path of volume in the primary storage.	3.10.0

Name	Type	Description	Starting Version
type	String	The volume type, including data volume and root volume.	3.10.0
format	String	The volume format.	3.10.0
size	Long	The volume size.	3.10.0
actualSize	Long	The actual volume size.	3.10.0
deviceId	Integer		3.10.0
state	String	Whether the volume is enabled.	3.10.0
status	String	The volume status.	3.10.0
createDate	Timestamp	The creation date.	3.10.0
lastOpDate	Timestamp	The last operation date.	3.10.0
isShareable	Boolean	Whether the volume is shared.	3.10.0
volumeQos	String	The volume QoS. Format: total=1048576 .	3.10.0

SDK Sample

Java SDK

```
CreateVmInstanceFromVolumeAction action = new CreateVmInstanceFromVolumeAction();
action.name = "vm1";
action.description = "this is a vm";
action.instanceOfferingUuid = "80c606e35bc038bbb102e31cae191ea2";
action.l3NetworkUuids = asList("333817afcaf63f13a101f674761c8a77");
action.volumeUuid = "23984cd68b903fd4883aa962c70d83fc";
action.clusterUuid = "ada53eb6c42e34d3946ff1280718d9f2";
action.strategy = "InstantStart";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmInstanceFromVolumeAction.Result res = action.call();
```

Python SDK

```
CreateVmInstanceFromVolumeAction action = CreateVmInstanceFromVolumeAction()
action.name = "vm1"
action.description = "this is a vm"
action.instanceOfferingUuid = "80c606e35bc038bbb102e31cae191ea2"
```



```

action.l3NetworkUuids = [333817afcaf63f13a101f674761c8a77]
action.volumeUuid = "23984cd68b903fd4883aa962c70d83fc"
action.clusterUuid = "ada53eb6c42e34d3946ff1280718d9f2"
action.strategy = "InstantStart"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmInstanceFromVolumeAction.Result res = action.call()

```

5.1.1.3 CreateVmInstanceFromVolumeSnapshot

API Request

URLs

```
POST zstack/v1/vm-instances/from/volume-snapshots/{volumeSnapshotUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "name": "vm1",
    "description": "this is a vm",
    "instanceOfferingUuid": "6900e329296732aca0e3658bcdcd3ce",
    "l3NetworkUuids": [
      "990ffab4793036d29fc92142889f9ef2"
    ],
    "clusterUuid": "cd44bab6f1d43e59bbc885f869e89388",
    "strategy": "InstantStart"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"vm1","description":"this is a
vm","instanceOfferingUuid":"6900e329296732aca0e3658bcdcd3ce","l3NetworkUuids":
["990ffab4793036d29fc92142889f9ef2"],"clusterUuid":"cd44bab6f1d43e59bbc885f869e89
http://localhost:8080/zstack/v1/vm-instances/from/volume-snapshots/
f81c959344783f19ae4fc76f1e770201

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.1.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.1.0
instanceOf feringUuid	String	body (contained in the params structure)	Optional. The instance offering UUID.		4.1.0
cpuNum	Integer	body (contained in the params structure)	Optional. The number of CPU cores.		4.1.0
memorySize	Long	body (contained in the params structure)	Optional. The memory size.		4.1.0
l3NetworkU uids	List	body (contained in the params structure)	The L3 network UUID.		4.1.0
type	String	body (contained in the params structure)	Optional. The VM type. This is a reserved field.	- UserVm - ApplianceV m	4.1.0
volumeSnap shotUuid	String	url	The snapshot group UUID.		4.1.0
platform	String	body (contained in the params structure)	The VM platform type.	- Linux - Windows - Other - Paravirtua lization	4.1.0

Name	Type	Location	Description	Valid Value	Starting Version
				WindowsVirtio	
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID.		4.1.0
clusterUuid	String	body (contained in the params structure)	Optional. The cluster UUID.		4.1.0
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		4.1.0
primaryStorageUuid	String	body (contained in the params structure)	Optional. The UUID of the primary storage.		4.1.0
defaultL3NetworkUuid	String	body (contained in the params structure)	Optional. The default L3 network UUID.		4.1.0
strategy	String	body (contained in the params structure)	Optional. The policy that specifies whether to start a VM instance when the instance is created.	- InstantStart - CreateStopped	4.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.1.0
tagUuids	List	body (contained in	Optional. The tag UUIDs.		4.1.0

Name	Type	Location	Description	Valid Value	Starting Version
		the params structure)			
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "109d10001c5c3553a7f2333e6a48610a",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "f31cb809cf0b3c668953e2507d5467b2",
    "clusterUuid": "fdfdf92e7bbe3212ab6530b11d8e0af5",
    "imageUuid": "96acc892dd793fb98c1924d54eb27a88",
    "hostUuid": "8eb85f51f10c30c0a6305b73d2002899",
    "lastHostUuid": "59ae08c1f6ed3638b6e4aa35b5a30d2e",
    "instanceOfferingUuid": "8b6d6aabad773972a0549539099e3e68",
    "rootVolumeUuid": "70eda0fe06163e67accf01a266fd5274",
    "platform": "Linux",
    "defaultL3NetworkUuid": "5ec42284ceaa3ad18f2b498e98ab6acc",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "b6d840187f1932209c21888923f5f35e",
        "vmInstanceUuid": "109d10001c5c3553a7f2333e6a48610a",
        "usedIpUuid": "54e8db987a4a333c80a87e4a84ab7675",
        "l3NetworkUuid": "5ec42284ceaa3ad18f2b498e98ab6acc",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "70eda0fe06163e67accf01a266fd5274",
        "name": "Root-Volume-For-VM-109d10001c5c3553a7f2333e6a48610a",
```

```

    "primaryStorageUuid": "0739abbe904639649da74cdcf0abd25f",
    "vmInstanceUuid": "109d10001c5c3553a7f2333e6a48610a",
    "rootImageUuid": "96acc892dd793fb98c1924d54eb27a88",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-70eda0fe06163e67accf01a266fd5274/70eda0fe06
163e67accf01a266fd5274.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.1.0
inventory	VmInstanceInventory	See inventory .	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
name	String	The resource name.	4.1.0
description	String	Optional. The detailed description of the resource.	4.1.0
zoneUuid	String	The zone UUID.	4.1.0
clusterUuid	String	The cluster UUID.	4.1.0
imageUuid	String	The image UUID.	4.1.0
hostUuid	String	The host UUID.	4.1.0
lastHostUuid	String		4.1.0
instanceOfferingUuid	String	The instance offering UUID.	4.1.0
rootVolumeUuid	String	The root volume UUID	4.1.0
platform	String		4.1.0
defaultL3NetworkUuid	String		4.1.0
type	String		4.1.0
hypervisorType	String		4.1.0
memorySize	Long		4.1.0
cpuNum	Integer		4.1.0
cpuSpeed	Long		4.1.0
allocatorStrategy	String		4.1.0
createDate	Timestamp	The creation time.	4.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last update time.	4.1.0
state	String		4.1.0
vmNics	List	See vmNics .	4.1.0
allVolumes	List	See allVolumes .	4.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
vmInstanceUuid	String	The VM UUID.	4.1.0
l3NetworkUuid	String	The L3 network UUID.	4.1.0
ip	String	The IP address.	4.1.0
mac	String	The MAC address.	4.1.0
hypervisorType	String	The hypervisor type.	4.1.0
netmask	String	The netmask.	4.1.0
gateway	String	The gateway.	4.1.0
metaData	String		4.1.0
ipVersion	Integer	The IP address version.	4.1.0
deviceId	Integer	The device ID.	4.1.0
type	String	The NIC type.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
usedIps	List	See usedIps .	4.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
ipRangeUuid	String	The IP range UUID.	4.1.0
l3NetworkUuid	String	The L3 network UUID.	4.1.0
ipVersion	Integer	The IP version.	4.1.0

Name	Type	Description	Starting Version
ip	String	The IP address.	4.1.0
netmask	String	The netmask.	4.1.0
gateway	String	The gateway.	4.1.0
usedFor	String		4.1.0
ipInLong	long		4.1.0
vmNicUuid	String	The VM NIC UUID.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
name	String	The resource name.	4.1.0
description	String	The detailed description of the resource.	4.1.0
primaryStorageUuid	String	The primary storage UUID.	4.1.0
vmInstanceUuid	String	The VM UUID.	4.1.0
diskOfferingUuid	String	The disk offering UUID.	4.1.0
rootImageUuid	String	The root volume image UUID.	4.1.0
installPath	String	The installation path of the volume on the primary storage.	4.1.0
type	String	The volume type.	4.1.0
format	String	The volume type.	4.1.0
size	Long	The volume size.	4.1.0
actualSize	Long	The actual size of the volume.	4.1.0
deviceId	Integer		4.1.0

Name	Type	Description	Starting Version
state	String	Indicates whether the disk is enabled.	4.1.0
status	String	The volume status.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
isShareable	Boolean	Indicates whether the volume is a shared volume.	4.1.0
volumeQos	String	The volume QoS, for example, total=1048576	4.1.0

SDK Sample

Java SDK

```
CreateVmInstanceFromVolumeSnapshotGroupAction action = new CreateVmInstanceFromVolumeSnapshotGroupAction();
action.name = "vm1";
action.description = "this is a vm";
action.instanceOfferingUuid = "5dda0d1013a433e9959967199f819c60";
action.l3NetworkUuids = asList("5fc19e24bedc32f58116ce6d63247f1a");
action.volumeSnapshotGroupUuid = "da7e81e1d1793fdab7d5d05268d680a2";
action.clusterUuid = "984aef8dfbb33c069c62fac5249ab044";
action.strategy = "InstantStart";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmInstanceFromVolumeSnapshotGroupAction.Result res = action.call();
```

Python SDK

```
CreateVmInstanceFromVolumeSnapshotGroupAction action = CreateVmInstanceFromVolumeSnapshotGroupAction()
action.name = "vm1"
action.description = "this is a vm"
action.instanceOfferingUuid = "5dda0d1013a433e9959967199f819c60"
action.l3NetworkUuids = ["5fc19e24bedc32f58116ce6d63247f1a"]
action.volumeSnapshotGroupUuid = "da7e81e1d1793fdab7d5d05268d680a2"
action.clusterUuid = "984aef8dfbb33c069c62fac5249ab044"
action.strategy = "InstantStart"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateVmInstanceFromVolumeSnapshotGroupAction.Result res = action.call()
```

5.1.1.4 CreateVmInstanceFromVolumeSnapshotGroup

API Request

URLs

```
POST zstack/vm-instances/from/volume-snapshots/group/
{volumeSnapshotGroupUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "vm1",
    "description": "this is a vm",
    "instanceOfferingUuid": "5dda0d1013a433e9959967199f819c60",
    "l3NetworkUuids": [
      "5fc19e24bedc32f58116ce6d63247f1a"
    ],
    "clusterUuid": "984aef8dfbb33c069c62fac5249ab044",
    "strategy": "InstantStart"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"vm1","description":"this is a
vm","instanceOfferingUuid":"5dda0d1013a433e9959967199f819c60","l3NetworkUuids":
["5fc19e24bedc32f58116ce6d63247f1a"],"clusterUuid":"984aef8dfbb33c069c62fac5249ab
http://localhost:8080/zstack/v1/vm-instances/from/volume-snapshots/
group/da7e81e1d1793fdab7d5d05268d680a2'
http://localhost:8080/zstack/v1/vm-instances/from/volume-snapshots/
group/da7e81e1d1793fdab7d5d05268d680a2
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.1.0
description	String	body (contained in the params structure)	The detailed description of the resource.		4.1.0
instanceOf feringUuid	String	body (contained in the params structure)	The instance offering UUID.		4.1.0
cpuNum	Integer	body (contained in the params structure)	Optional. The number of CPU cores.		4.1.0
memorySize	Long	body (contained in the params structure)	Optional. The memory size.		4.1.0
l3NetworkU uids	List	body (contained in the params structure)	The L3 network UUID.		4.1.0
type	String	body (contained in the params structure)	Optional. The VM type.	- UserVm - ApplianceV m	4.1.0
volumeSnap shotGroupU uid	String	url	The snapshot group UUID.		4.1.0
zoneUuid	String	body (contained in the params structure)	Optiona. The zone UUID.		4.1.0
clusterUuid	String	body (contained in	Optional. The cluster UUID		4.1.0

Name	Type	Location	Description	Valid Value	Starting Version
		the params structure)			
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		4.1.0
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	The UUID of the primary storage where the root volume resides.		4.1.0
defaultL3NetworkUuid	String	body (contained in the params structure)	Optional. The default L3 network UUID.		4.1.0
strategy	String	body (contained in the params structure)	Optional. The policy that specifies whether to start a VM instance when the instance is created.	- InstantStart - CreateStopped	4.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.1.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUIDs.		4.1.0
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "109d10001c5c3553a7f2333e6a48610a",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "f31cb809cf0b3c668953e2507d5467b2",
    "clusterUuid": "fdfdf92e7bbe3212ab6530b11d8e0af5",
    "imageUuid": "96acc892dd793fb98c1924d54eb27a88",
    "hostUuid": "8eb85f51f10c30c0a6305b73d2002899",
    "lastHostUuid": "59ae08c1f6ed3638b6e4aa35b5a30d2e",
    "instanceOfferingUuid": "8b6d6aab773972a0549539099e3e68",
    "rootVolumeUuid": "70eda0fe06163e67accf01a266fd5274",
    "platform": "Linux",
    "defaultL3NetworkUuid": "5ec42284ceaa3ad18f2b498e98ab6acc",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "b6d840187f1932209c21888923f5f35e",
        "vmInstanceUuid": "109d10001c5c3553a7f2333e6a48610a",
        "usedIpUuid": "54e8db987a4a333c80a87e4a84ab7675",
        "l3NetworkUuid": "5ec42284ceaa3ad18f2b498e98ab6acc",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "70eda0fe06163e67accf01a266fd5274",
        "name": "Root-Volume-For-VM-109d10001c5c3553a7f2333e6a48610a",
        "primaryStorageUuid": "0739abb904639649da74cdcf0abd25f",
        "vmInstanceUuid": "109d10001c5c3553a7f2333e6a48610a",
        "rootImageUuid": "96acc892dd793fb98c1924d54eb27a88",
        "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-70eda0fe06163e67accf01a266fd5274/70eda0fe06163e67accf01a266fd5274.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 1.073741824E11,
        "actualSize": 2.147483648E10,
        "deviceId": 0.0,
        "state": "Enabled",
        "status": "Ready",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}
```

```

    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.1.0
inventory	VmInstanceInventory	See inventory .	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0

Name	Type	Description	Starting Version
name	String	The resource name.	4.1.0
description	String	The detailed description of the resource.	4.1.0
zoneUuid	String	The zone UUID.	4.1.0
clusterUuid	String	The cluster UUID.	4.1.0
imageUuid	String	The image UUID.	4.1.0
hostUuid	String	The host UUID.	4.1.0
lastHostUuid	String		4.1.0
instanceOfferingUuid	String	The instance offering UUID.	4.1.0
rootVolumeUuid	String	The root volume UUID.	4.1.0
platform	String		4.1.0
defaultL3NetworkUuid	String		4.1.0
type	String		4.1.0
hypervisorType	String		4.1.0
memorySize	Long		4.1.0
cpuNum	Integer		4.1.0
cpuSpeed	Long		4.1.0
allocatorStrategy	String		4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
state	String		4.1.0
vmNics	List	See vmNics .	4.1.0
allVolumes	List	See allVolumes .	4.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
vmInstanceUuid	String	The VM UUID.	4.1.0

Name	Type	Description	Starting Version
I3NetworkUuid	String	The L3 network UUID.	4.1.0
ip	String	The IP address.	4.1.0
mac	String	The MAC address.	4.1.0
hypervisorType	String	The hypervisor type.	4.1.0
netmask	String	The netmask.	4.1.0
gateway	String	The gateway.	4.1.0
metaData	String		4.1.0
ipVersion	Integer	The IP address version.	4.1.0
deviceId	Integer	The device ID.	4.1.0
type	String	The NIC type.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
usedIps	List	See usedIps .	4.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
ipRangeUuid	String	The IP range UUID.	4.1.0
I3NetworkUuid	String	The L3 network UUID.	4.1.0
ipVersion	Integer	The IP version.	4.1.0
ip	String	The IP address.	4.1.0
netmask	String	The netmask.	4.1.0
gateway	String	The gateway.	4.1.0
usedFor	String		4.1.0
ipInLong	long		4.1.0
vmNicUuid	String	The VM NIC UUID.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
name	String	The resource name.	4.1.0
description	String	The detailed description of the resource.	4.1.0
primaryStorageUuid	String	The primary storage UUID.	4.1.0
vmInstanceUuid	String	The VM UUID.	4.1.0
diskOfferingUuid	String	The disk offering UUID.	4.1.0
rootImageUuid	String	The root volume image UUID.	4.1.0
installPath	String	The installation path of the volume on the primary storage.	4.1.0
type	String	The volume type.	4.1.0
format	String	The volume type.	4.1.0
size	Long	The volume size.	4.1.0
actualSize	Long	The actual size of the volume.	4.1.0
deviceId	Integer		4.1.0
state	String	Indicates whether the disk is enabled.	4.1.0
status	String	The volume status.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
isShareable	Boolean	Indicates whether the volume is a shared volume.	4.1.0
volumeQos	String	The volume QoS, for example, total=1048576	4.1.0

SDK Sample

Java SDK

```
CreateVmInstanceFromVolumeSnapshotGroupAction action = new CreateVmInstanceFromVolumeSnapshotGroupAction();
action.name = "vm1";
action.description = "this is a vm";
action.instanceOfferingUuid = "5dda0d1013a433e9959967199f819c60";
action.l3NetworkUuids = asList("5fc19e24bedc32f58116ce6d63247f1a");
action.volumeSnapshotGroupUuid = "da7e81e1d1793fdab7d5d05268d680a2";
action.clusterUuid = "984aef8dfbb33c069c62fac5249ab044";
action.strategy = "InstantStart";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmInstanceFromVolumeSnapshotGroupAction.Result res = action.call();
```

Python SDK

```
CreateVmInstanceFromVolumeSnapshotGroupAction action = CreateVmInstanceFromVolumeSnapshotGroupAction()
action.name = "vm1"
action.description = "this is a vm"
action.instanceOfferingUuid = "5dda0d1013a433e9959967199f819c60"
action.l3NetworkUuids = ["5fc19e24bedc32f58116ce6d63247f1a"]
action.volumeSnapshotGroupUuid = "da7e81e1d1793fdab7d5d05268d680a2"
action.clusterUuid = "984aef8dfbb33c069c62fac5249ab044"
action.strategy = "InstantStart"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmInstanceFromVolumeSnapshotGroupAction.Result res = action.call()
```

5.1.1.5 CreateVmInstanceFromOvf

API Request

URLs

```
POST zstack/v1/ovf/create-vm-instance
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "xmlBase64": "PD94bWwgdmVyc2lvbj0nMS4wJyBlbmNvZGluZz0nVVRGLTgnPz4KPEVudmVsb3B1IHhtbG5zPSJodHRwOi8vc2NoZW1hcy5kbXR",
    "jsonImageInfos": "[{\"ovfId\":\"vm-1-system.vmdk\", \"type\":\"Download\", \"installPath\":\"http://xxx/vm-1-system.vmdk\"}]",
    "backupStorageUuid": "3302f082e39d3ba8a246de74179e5512",
    "jsonCreateVmParam": "{\"name\":\"a\", \"clusterUuid\":\"e79b1a7be3183216a99874e942a7dd4a\", \"l3NetworkUuids\": [\"4f4b50d7cb6d3a9a944172b73653a593\"]}"
```

```

    "deleteImageAfterSuccess": true,
    "deleteImageOnFail": false
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, the **userTags** field is optional. This field can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"xmlBase64":"PD94bWwgdmVyc2lvbj0nMS4wJyBlbmNvZGluZz0nVVRGLTgnPz4KPEVudmVsb3BlIH
\":"vm-1-system.vmdk\","type\":"Download",
\installPath\":"http://xxx/vm-1-system.vmdk
\}"]',"backupStorageUuid":"3302f082e39d3ba8a246de74179e5512","jsonCreateVmParam":
\":"a\","clusterUuid\":"e79b1a7be3183216a99874e942a7dd4a\","
\l3NetworkUuids\":"
[\4f4b50d7cb6d3a9a944172b73653a593\]}',"deleteImageAfterSuccess":true,"deleteIm
http://localhost:8080/zstack/v1/ovf/create-vm-instance

```

Parameters

Name	Type	Location	Description	Optional Value	Starting Version
xmlBase64	String	body(contained in the params structure)	The resource name.		4.4.6
jsonImageInfos	String	body(contained in the params structure)	The JSON string that describes the relationship between disk ID and the image file.		4.4.6
backupStorageUuid	String	body(contained in the params structure)	The UUID of the backup storage that stores the uploaded image file.		4.4.6

Name	Type	Location	Description	Optional Value	Starting Version
jsonCreateVmParam	String	body(contained in the params structure)	The JSON string that contains the parameters used to create a VM instance.		4.4.6
deleteImageAfterSuccess	boolean	body(contained in the params structure)	Optional. Specifies whether to delete the image file after the deployment is completed.		4.4.6
deleteImageOnFail	boolean	body(contained in the params structure)	Optional. Specifies whether to delete the image file after the deployment fails.		4.4.6
resourceUuid	String	body(contained in the params structure)	Optional. The resource UUID.		4.4.6
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.4.6
systemTags	List	body	Optional. The system tags.		4.4.6
userTags	List	body	Optional. The user tags.		4.4.6

API Response

Sample Response

```
{
```

```

"inventory": {
  "uuid": "ef8b74d3a7f931c3aacf258c20d25411",
  "name": "test-ovf",
  "description": "web server VM",
  "zoneUuid": "5f3cdedd4a823bfcadd45385f034b763",
  "clusterUuid": "2bb23d2c0a013338add7cedf2615ac39",
  "imageUuid": "f47e5dbf886e3d16b8097294efd63b37",
  "hostUuid": "82bad7cada82377684459e59292937b4",
  "lastHostUuid": "00e742c03afe3cd68234aa9c9352d5a7",
  "instanceOfferingUuid": "a9a166f625e23886a7227bdb472da645",
  "rootVolumeUuid": "3e92e577418835a3bfeb0d770e898052",
  "platform": "Linux",
  "defaultL3NetworkUuid": "e4f37ede6e563fe5943ae8b8c7c008d6",
  "type": "UserVm",
  "hypervisorType": "KVM",
  "memorySize": 4.294967296E9,
  "cpuNum": 4.0,
  "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
  "createDate": "Nov 14, 2017 2:20:57 PM",
  "lastOpDate": "Nov 14, 2017 2:20:57 PM",
  "state": "Running",
  "vmNics": [
    {
      "uuid": "d5a26fdcdcff30748b22b85f4d7fadbe",
      "vmInstanceUuid": "ef8b74d3a7f931c3aacf258c20d25411",
      "usedIpUuid": "4423412a12653cb3af73231e16e526cf",
      "l3NetworkUuid": "e4f37ede6e563fe5943ae8b8c7c008d6",
      "ip": "192.168.1.10",
      "mac": "00:0c:29:bd:99:fc",
      "hypervisorType": "KVM",
      "netmask": "255.255.255.0",
      "gateway": "192.168.1.1",
      "deviceId": 0.0,
      "createDate": "Nov 14, 2017 2:20:57 PM",
      "lastOpDate": "Nov 14, 2017 2:20:57 PM"
    }
  ],
  "allVolumes": [
    {
      "uuid": "3e92e577418835a3bfeb0d770e898052",
      "name": "Root-Volume-For-VM-ef8b74d3a7f931c3aacf258c20d25411",
      "primaryStorageUuid": "353a440b83283acca73e3d3fd2cca0c5",
      "vmInstanceUuid": "ef8b74d3a7f931c3aacf258c20d25411",
      "diskOfferingUuid": "323969fdd2273f1a8e42aef10a9e8c6b",
      "rootImageUuid": "f47e5dbf886e3d16b8097294efd63b37",
      "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-3e92e577418835a3bfeb0d770e898052/3e92e577418835a3bfeb0d770e898052.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Nov 14, 2017 2:20:57 PM",
      "lastOpDate": "Nov 14, 2017 2:20:57 PM"
    }
  ]
}

```

}

Name	Type	Description	Starting Version
success	boolean		4.4.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.4.6
inventory	VmInstanceInventory	See inventory .	4.4.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.6
description	String	The brief description of the error.	4.4.6
details	String	The details about the error.	4.4.6
elaboration	String	The reserved field. Default value: null.	4.4.6
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.6

Name	Type	Description	Starting Version
name	String	The resource name.	4.4.6
description	String	The resource description.	4.4.6
zoneUuid	String	The zone UUID.	4.4.6
clusterUuid	String	The cluster UUID.	4.4.6
imageUuid	String	The image UUID.	4.4.6
hostUuid	String	The host UUID.	4.4.6
lastHostUuid	String		4.4.6
instanceOfferingUuid	String	The instance offering UUID.	4.4.6
rootVolumeUuid	String	The root volume UUID.	4.4.6
platform	String		4.4.6
architecture	String		4.4.6
defaultL3NetworkUuid	String		4.4.6
type	String		4.4.6
hypervisorType	String		4.4.6
memorySize	Long		4.4.6
cpuNum	Integer		4.4.6
cpuSpeed	Long		4.4.6
allocatorStrategy	String		4.4.6
createDate	Timestamp	The creation time.	4.4.6
lastOpDate	Timestamp	The last operation time.	4.4.6
state	String		4.4.6
guestOsType	String		4.4.6
vmNics	List	See vmNics .	4.4.6
allVolumes	List	See allVolumes .	4.4.6
vmCdRoms	List	See vmCdRoms .	4.4.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.6
vmInstanceUuid	String	The VM UUID.	4.4.6
l3NetworkUuid	String	The L3 network UUID.	4.4.6
ip	String	The IP address.	4.4.6
mac	String	The MAC address.	4.4.6
hypervisorType	String	The hypervisor type.	4.4.6
netmask	String	The netmask.	4.4.6
gateway	String	The gateway.	4.4.6
metaData	String		4.4.6
ipVersion	Integer	The IP version.	4.4.6
driverType	String		4.4.6
internalName	String		4.4.6
deviceId	Integer	The device ID.	4.4.6
type	String	The NIC type.	4.4.6
createDate	Timestamp	The creation time.	4.4.6
lastOpDate	Timestamp	The last operation time	4.4.6
		.	
usedIps	List	See usedIps .	4.4.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.6
ipRangeUuid	String	The IP range UUID.	4.4.6
l3NetworkUuid	String	The L3 network UUID.	4.4.6
ipVersion	Integer	The IP version.	4.4.6
ip	String	The IP address.	4.4.6
netmask	String	The netmask.	4.4.6
gateway	String	The gateway.	4.4.6
usedFor	String		4.4.6
ipInLong	long		4.4.6

Name	Type	Description	Starting Version
vmNicUuid	String	The NIC UUID.	4.4.6
createDate	Timestamp	The creation time.	4.4.6
lastOpDate	Timestamp	The last operation time.	4.4.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.6
name	String	The resource name.	4.4.6
description	String	The resource description.	4.4.6
primaryStorageUuid	String	The primary storage UUID.	4.4.6
vmInstanceUuid	String	The VM UUID.	4.4.6
diskOfferingUuid	String	The disk offering UUID.	4.4.6
rootImageUuid	String	The root volume image UUID.	4.4.6
installPath	String	The installation path.	4.4.6
type	String	The volume type.	4.4.6
format	String	The volume format.	4.4.6
size	Long	The virtual size of the volume.	4.4.6
actualSize	Long	The actual size of the volume.	4.4.6
deviceId	Integer	The device ID.	4.4.6
state	String	The state of the volume.	4.4.6
status	String	The status of the volume.	4.4.6
createDate	Timestamp	The creation time.	4.4.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation time .	4.4.6
isShareable	Boolean	Whether the volume can be shared.	4.4.6
volumeQos	String	The volume QoS.	4.4.6

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.6
vmInstanceUuid	String	The VM UUID.	4.4.6
deviceId	Integer		4.4.6
isoUuid	String		4.4.6
isoInstallPath	String		4.4.6
name	String	The resource name.	4.4.6
description	String	The resource description.	4.4.6
createDate	Timestamp	The creation time.	4.4.6
lastOpDate	Timestamp	The last operation time .	4.4.6

SDK Sample

Java SDK

```

CreateVmInstanceFromOvfAction action = new CreateVmInstanceFrom
OvfAction();
action.xmlBase64 = "PD94bWwgdmVyc2lvbj0nMS4wJyBlbmNvZGluZz0nVVRGLTgnPz
4KPEVudmVsb3BlIHhtbG5zPSJodHRwOi8vc2NoZW1hcy5kbXR";
action.jsonImageInfos = "[{"ovfId":"vm-1-system.vmdk","type":"Download
","installPath":"http://xxx/vm-1-system.vmdk"}]";
action.backupStorageUuid = "3302f082e39d3ba8a246de74179e5512";
action.jsonCreateVmParam = "{\"name\":\"a\",\"clusterUuid\":\"e79b1a7be3
183216a99874e942a7dd4a\",\"l3NetworkUuids\":[\"4f4b50d7cb6d3a9a9441
72b73653a593\"]}";
action.deleteImageAfterSuccess = true;
action.deleteImageOnFail = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
CreateVmInstanceFromOvfAction.Result res = action.call();
```

Python SDK

```
CreateVmInstanceFromOvfAction action = CreateVmInstanceFromOvfAction()
action.xmlBase64 = "PD94bWwgdmVyc2lvbj0nMS4wJyBlbmNvZGluZz0nVVRGLTgnPz
4KPEVudmVsb3BliHhtbG5zPSJodHRwOi8vc2NoZW1hcy5kbXR"
action.jsonImageInfos = "[{"ovfId":"vm-1-system.vmdk","type":"Download
","installPath":"http://xxx/vm-1-system.vmdk"}]"
action.backupStorageUuid = "3302f082e39d3ba8a246de74179e5512"
action.jsonCreateVmParam = "{\"name\":\"a\",\"clusterUuid\":\"e79b1a7be3
183216a99874e942a7dd4a\",\"l3NetworkUuids\":[\"4f4b50d7cb6d3a9a9441
72b73653a593\"]}"
action.deleteImageAfterSuccess = true
action.deleteImageOnFail = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmInstanceFromOvfAction.Result res = action.call()
```

5.1.1.6 ExportVmOvaPackage

API Request

URLs

```
POST zstack/v1/ovf/ova-packages
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "ova",
    "description": "description",
    "vmUuid": "af3c221d1dc4351999e0834c00b33118",
    "backupStorageUuid": "4205d410ede03e759277c9987c660a16"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, the **userTags** field is optional. This field can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":
{"name":"ova","description":"description","vmUuid":"af3c221d1dc4351999e0834c00b33
http://localhost:8080/zstack/v1/ovf/ova-packages
```

Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body(contained in the params structure)	Optional. The resource name.		4.4.6
description	String	body(contained in the params structure)	Optional. The resource description.		4.4.6
vmUuid	String	body(contained in the params structure)	The VM UUID.		4.4.6
backupStorageUuid	String	body(contained in the params structure)	The backup storage UUID.		4.4.6
resourceUuid	String	body(contained in the params structure)	Optional. The resource UUID.		4.4.6
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.4.6
systemTags	List	body	Optional. The system tags.		4.4.6
userTags	List	body	Optional. The user tags.		4.4.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "9f77f8d79ee138bfac21290c02fc2cb6",
    "name": "ova",
    "description": "description",
    "vmUuid": "43d306a42cdf38c48458d061e40b810a",
    "backupStorageUuid": "22f7145dba4f3da6af7ff8f0e02af6e3",
    "state": "Exported",
    "exportUrl": "http://bs-host-name/path/to/ova.ova",
    "md5Sum": "sampleMd5Sum",
```

```

    "format": "OVA",
    "size": 1.073741824E10,
    "createDate": "May 10, 2022 5:24:03 AM",
    "lastOpDate": "May 10, 2022 5:24:03 AM"
  }
}

```

Name	Type	Description	Starting Version
success	boolean		4.4.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.4.6
inventory	VmInstanceInventory	See inventory .	4.4.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.6
description	String	The brief description of the error.	4.4.6
details	String	The details about the error.	4.4.6
elaboration	String	The reserved field. Default value: null.	4.4.6
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.6
name	String	The resource name.	4.4.6
description	String	The resource description.	4.4.6
vmUuid	String	The source VM UUID.	4.4.6
backupStorageUuid	String	The backup storage UUID.	4.4.6
exportUrl	String	The download address.	4.4.6
md5Sum	String	The MD5 sum of the image package.	4.4.6
format	String	The image package format.	4.4.6
size	Long	The image package size.	4.4.6
createDate	Timestamp	The creation time.	4.4.6
lastOpDate	Timestamp	The last operation time.	4.4.6
state	ImagePackageState	See state .	4.4.6

#state

Name	Type	Description	Starting Version
Exporting	ImagePackageState	The image package is exporting.	4.4.6
Exported	ImagePackageState	The image package is exported.	4.4.6

SDK Sample

Java SDK

```
ExportVmOvaPackageAction action = new ExportVmOvaPackageAction();
action.name = "ova";
action.description = "description";
action.vmUuid = "af3c221d1dc4351999e0834c00b33118";
action.backupStorageUuid = "4205d410ede03e759277c9987c660a16";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ExportVmOvaPackageAction.Result res = action.call();
```

Python SDK

```
ExportVmOvaPackageAction action = ExportVmOvaPackageAction()
action.name = "ova"
action.description = "description"
action.vmUuid = "af3c221d1dc4351999e0834c00b33118"
action.backupStorageUuid = "4205d410ede03e759277c9987c660a16"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ExportVmOvaPackageAction.Result res = action.call()
```

5.1.1.7 ParseOvf

API Request

URLs

```
POST zstack/v1/ovf/parse
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "xmlBase64": "Base64 encoded ovf file content."
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, the **userTags** field is optional. This field can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"xmlBase64":"Base64 encoded ovf file content."}}' http://localhost:8080/zstack/v1/ovf/parse
```

Parameters

Name	Type	Location	Description	Optional Value	Starting Version
xmlBase64	String	body(contained in the params structure)	The Base64-encoded OVF file.		4.4.6
systemTags	List	body	Optional. The system tags.		4.4.6
userTags	List	body	Optional. The user tags.		4.4.6

API Response

Sample Response

```
{
  "ovfInfo": {
    "disks": [
      {
        "index": 0.0,
        "diskId": "system",
        "fileRef": "file1",
        "fileName": "system.vmdk",
        "format": "vmdk",
        "populatedSize": 1.688600576E9,
        "capacity": 6.442450944E10
      }
    ],
    "networks": [
      {
        "name": "red-net"
      }
    ],
    "cpu": {
      "instanceId": "2",
      "quantity": 4.0,
      "coresPerSocket": 4.0
    },
    "memory": {
      "instanceId": "3",
      "quantity": 4.294967296E9
    },
    "vmName": "VM-1",
    "os": {
      "id": 107.0,
      "version": "7",
      "osType": "centos",
      "description": "CentOS 7"
    },
    "systemInfo": {
      "virtualSystemType": "vmx-18"
    },
    "nics": [
      {
        "networkName": "red-net",
```



```

        "nicModel": "E1000",
        "nicName": "nic-1",
        "autoAllocation": true
    },
    "cdDrivers": [
        {
            "autoAllocation": true,
            "driverType": "SATA",
            "subType": "vmware.cdrom.remotepassthrough",
            "name": "CD"
        }
    ],
    "volumes": [
        {
            "name": "System Volume",
            "diskId": "system",
            "driverType": "IDE"
        }
    ]
}

```

Name	Type	Description	Starting Version
success	boolean		4.4.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.4.6
ovflInfo	OvflInfo	See ovflInfo .	4.4.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.6
description	String	The brief description of the error.	4.4.6
details	String	The details about the error.	4.4.6
elaboration	String	The reserved field. Default value: null.	4.4.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.6

#ovfInfo

Name	Type	Description	Starting Version
vmName	String	The VM name.	4.4.6
disks	List	See disks .	4.4.6
networks	List	See networks .	4.4.6
cpu	OvfCpuInfo	See cpu .	4.4.6
memory	OvfMemoryInfo	See memory .	4.4.6
os	OvfOSInfo	See os .	4.4.6
systemInfo	OvfSystemInfo	See systemInfo .	4.4.6
nics	List	See nics .	4.4.6
cdDrivers	List	See cdDrivers .	4.4.6
volumes	List	See volumes .	4.4.6

#disks

Name	Type	Description	Starting Version
index	int	The disk number.	4.4.6
diskId	String	The disk ID.	4.4.6
fileRef	String	The file reference.	4.4.6
fileName	String	The image file name.	4.4.6
format	String	The image file format.	4.4.6
populatedSize	Long	The image file size.	4.4.6
capacity	Long	The disk capacity. Unit : byte.	4.4.6

#networks

Name	Type	Description	Starting Version
name	String	The network name.	4.4.6

#cpu

Name	Type	Description	Starting Version
instanceId	String	The instance ID.	4.4.6
quantity	Integer	The number of CPU cores.	4.4.6
coresPerSocket	Integer	The number of cores per CPU.	4.4.6

#memory

Name	Type	Description	Starting Version
instanceId	String	The instance ID.	4.4.6
quantity	Long	The memory size. Unit : byte.	4.4.6

#os

Name	Type	Description	Starting Version
id	Integer	The OS ID.	4.4.6
version	String	The OS version.	4.4.6
osType	String	The OS type.	4.4.6
description	String	The OS description.	4.4.6

#systemInfo

Name	Type	Description	Starting Version
virtualSystemType	String	The system type.	4.4.6
firmwareType	String	The firmware type.	4.4.6

#nics

Name	Type	Description	Starting Version
networkName	String	The network name.	4.4.6
nicModel	String	The NIC model.	4.4.6
nicName	String	The NIC name.	4.4.6
autoAllocation	Boolean	Indicates whether the NIC is auto allocated.	4.4.6

#cdDrivers

Name	Type	Description	Starting Version
autoAllocation	Boolean	Indicates whether the CD driver is auto allocated.	4.4.6
driverType	String	The driver type.	4.4.6
subType	String	The sub-type.	4.4.6
name	String	The driver name.	4.4.6

#volumes

Name	Type	Description	Starting Version
name	String	The disk name.	4.4.6
diskId	String	The disk ID.	4.4.6
driverType	String	The disk driver type.	4.4.6

SDK Sample

Java SDK

```
ParseOvfAction action = new ParseOvfAction();
action.xmlBase64 = "Base64 encoded ovf file content.";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ParseOvfAction.Result res = action.call();
```

Python SDK

```
ParseOvfAction action = ParseOvfAction()
action.xmlBase64 = "Base64 encoded ovf file content."
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ParseOvfAction.Result res = action.call()
```

5.1.1.8 DestroyVmInstance

API Request

URLs

```
DELETE zstack/v1/vm-instances/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 8d618c25ba3b4eb7bc6dda7e47d1b6b4" \
-X DELETE http://localhost:8080/zstack/v1/vm-
instances/5e22e2b1c4ab40739cd0b7717368dfa7?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DestroyVmInstanceAction action = new DestroyVmInstanceAction();
action.uuid = "c0b82973fbed42a09f3a30ce142fb168";
action.deleteMode = "Permissive";
action.sessionId = "97ddb4b10e34452c90d8591927cf3de5";
DestroyVmInstanceAction.Result res = action.call();
```

Python SDK

```
DestroyVmInstanceAction action = DestroyVmInstanceAction()
action.uuid = "0de3629902f1449d86256934552d5b3d"
action.deleteMode = "Permissive"
action.sessionId = "931c9e7e586c4b5fa44ed1155985ac1a"
DestroyVmInstanceAction.Result res = action.call()
```

5.1.1.9 RecoverVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "recoverVmInstance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"recoverVmInstance":{}}' \
```

```
http://localhost:8080/zstack/v1/vm-
instances/0eb6f6f88ff93da48cfc5bca0dbd5c18/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1b3cdc92c630366285008630dc04cccf",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "5e5e70ad37603682bfffceabb1f8ce2ab",
    "clusterUuid": "eaa8bd07672b362e81fefddf492f3500",
    "imageUuid": "f4054dad08253b9e815ca27816a6e6b1",
    "hostUuid": "b274b64311aa3b25ab18d6afe7e62b47",
    "lastHostUuid": "641b69d147fe37d58979c0bc0a8bb24b",
    "instanceOfferingUuid": "f7e6c6ad82623a8d9076e09493a52103",
    "rootVolumeUuid": "a7489a3011c233a4bd89c0b0ac9321bd",
    "platform": "Linux",
    "defaultL3NetworkUuid": "02f493cfb1873724949114b8a9bb85f7",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Stopped",
    "vmNics": [
      {
        "uuid": "0e912b741b5636fcbe4a6555d7ed3c83",
        "vmInstanceUuid": "1b3cdc92c630366285008630dc04cccf",
        "l3NetworkUuid": "02f493cfb1873724949114b8a9bb85f7",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
```

```

{
  "uuid": "a7489a3011c233a4bd89c0b0ac9321bd",
  "name": "Root-Volume-For-VM-1b3cdc92c630366285008630dc04cccf",
  "primaryStorageUuid": "5543d328687234f88bb613a383453121",
  "vmInstanceUuid": "1b3cdc92c630366285008630dc04cccf",
  "diskOfferingUuid": "367b3392c77b3faf8786fdfa40cafc3",
  "rootImageUuid": "f4054dad08253b9e815ca27816a6e6b1",
  "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-a7489a3011c233a4bd89c0b0ac9321bd/a7489a3011
c233a4bd89c0b0ac9321bd.qcow2",
  "type": "Root",
  "format": "qcow2",
  "size": 1.073741824E11,
  "actualSize": 2.147483648E10,
  "deviceId": 0.0,
  "state": "Enabled",
  "status": "Ready",
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0

Name	Type	Description	Starting Version
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
RecoverVmInstanceAction action = new RecoverVmInstanceAction();
action.uuid = "526fac8545fb4aa0aa2c78209378d63f";
action.sessionId = "a52aa10c9d5d445cb44593e21c3895f3";
RecoverVmInstanceAction.Result res = action.call();
```

Python SDK

```
RecoverVmInstanceAction action = RecoverVmInstanceAction()
action.uuid = "d0b44ed4139f4a7fa50951b99c9b2fd3"
action.sessionId = "078d6751ce124bd5a1fb00015116db8b"
RecoverVmInstanceAction.Result res = action.call()
```

5.1.1.10 ExpungeVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "expungeVmInstance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"expungeVmInstance":{}}' \
http://localhost:8080/zstack/v1/vm-instances/
e57788f713963e98a99a9f6b0bd8482c/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ExpungeVmInstanceAction action = new ExpungeVmInstanceAction();
action.uuid = "f3b0b9538e6a49a88e189ba2c42b728e";
action.sessionId = "332f2d77997446fbaef62df0411b2635";
ExpungeVmInstanceAction.Result res = action.call();
```

Python SDK

```
ExpungeVmInstanceAction action = ExpungeVmInstanceAction()
action.uuid = "1cc86ac86211480485a251a48bc1928e"
action.sessionId = "6af024d8e8bf44709b42ffa623e96073"
```

```
ExpungeVmInstanceAction.Result res = action.call()
```

5.1.1.11 QueryVmInstance

API Request

URLs

```
GET zstack/v1/vm-instances
GET zstack/v1/vm-instances/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 06771ba1b893402bb4c715b7acf3606e" \
-X GET http://localhost:8080/zstack/v1/vm-instances?
q=name=vm1&q=vmNics.ip=192.168.20.100
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 95c7b190063f423ea6b305f054af8bf5" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/3b9c1b2bca5848459881bfad378540b5
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVmInstance`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "a43716db0d713c319be06811ebcc00a1",
      "name": "Test-VM",
      "description": "web server VM",
      "zoneUuid": "dfa731eef1f13f1da298855d6ce282bd",
      "clusterUuid": "743b07830cb6324192a2e0cc34186814",
      "imageUuid": "ea51c3f89cb53b0db4abdd648c476f80",
      "hostUuid": "d808c413110a32cab4d9c4d034818eb0",
      "lastHostUuid": "3da349b211ba3cebb5629c0f90aadf63",
      "instanceOfferingUuid": "1a3f2ce111cf318688f7bb0cc217d5ff",
      "rootVolumeUuid": "b677bd698e1d3e4b9787fa81827d13d4",
      "platform": "Linux",
      "architecture": "x86_64",
      "defaultL3NetworkUuid": "3bcc70b465c4371b8a7f9bd975fdec76",
      "type": "UserVm",
      "hypervisorType": "KVM",
      "memorySize": 8.589934592E9,

```

```

"cpuNum": 1.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Nov 14, 2017 9:20:57 AM",
"lastOpDate": "Nov 14, 2017 9:20:57 AM",
"state": "Running",
"vmNics": [
  {
    "uuid": "39da5aec41f336929db3458395614151",
    "vmInstanceUuid": "a43716db0d713c319be06811ebcc00a1",
    "usedIpUuid": "69008cc8dbd03aeba1787ec024a0b326",
    "l3NetworkUuid": "3bcc70b465c4371b8a7f9bd975fdec76",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 9:20:57 AM",
    "lastOpDate": "Nov 14, 2017 9:20:57 AM"
  }
],
"allVolumes": [
  {
    "uuid": "b677bd698e1d3e4b9787fa81827d13d4",
    "name": "Root-Volume-For-VM-a43716db0d713c319be06811ebcc00a1",
    "primaryStorageUuid": "413b0d61df4e3b088f5ee045ff84b65b",
    "vmInstanceUuid": "a43716db0d713c319be06811ebcc00a1",
    "diskOfferingUuid": "37c73ea89a2b3a7bb7126f5fe7a32dc6",
    "rootImageUuid": "ea51c3f89cb53b0db4abdd648c476f80",
    "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-b677bd698e1d3e4b9787fa81827d13d4/b677bd698e1d3e4b9787fa81827d13d4.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 9:20:57 AM",
    "lastOpDate": "Nov 14, 2017 9:20:57 AM"
  }
],
"vmCdRoms": [
  {
    "uuid": "45330c110bf23b08b1e41036d6c6aa6c",
    "deviceId": 0.0,
    "isoUuid": "5887742601aa32b5ac57e9024ff38ee8",
    "name": "cd-1",
    "description": "desc",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"guestOsType": "CentOS7"
]

```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
architecture	String	The architecture type.	4.5.0
defaultL3NetworkUuid	String		0.6
type	String	The VM instance type. Options: • UserVm • ApplianceVm	0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String	The state of the VM instance. Options: • Created • Starting • Running • Stopping	0.6

Name	Type	Description	Starting Version
		• Stopped • Rebooting • Destroying • Destroyed • Migrating • Expunging • Pausing • Paused • Resuming • VolumeMigrating • Unknown	
guestOsType	String	The Operating System type.	4.5.0
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6
vmCdRoms	List	See vmCdRoms	4.5.0

**Note:**

The state of a VM instance can be changed as follows:

- A VM instance in the Created state can be changed to the Starting, Destroying, or Destroyed state.
- A VM instance in the Starting state can be changed to the Running, Stopped, Paused, Destroying, or Unknown state.
- A VM instance in the Running state can be changed to the Destroying, Stopping, Stopped, Rebooting, Migrating, Pausing, Paused, or Unknown state.
- A VM instance in the Stopping state can be changed to the Stopped, Destroying, Running, or Unknown state.
- A VM instance in the Stopped state can be changed to the Starting, Running, Paused, Destroying, VolumeMigrating, or Unknown state.
- A VM instance in the Migrating state can be changed to the Running, Stopped, Unknown, or Destroying state.
- A VM instance in the VolumeMigrating state can be changed to the Stopped, Unknown, or Destroying state.

- A VM instance in the Rebooting state can be changed to the Running, Stopped, Unknown, or Destroying state.
- A VM instance in the Paused state can be changed to the Resuming, Stopped, Running, Stopping, Destroying, Unknown, or Migrating state.
- A VM instance in the Pausing state can be changed to the Paused, Destroying, Running, or Unknown state.
- A VM instance in the Resuming state can be changed to the Running, Destroying, Paused, or Unknown state.
- A VM instance in the Unknown state can be changed to the Destroying, Stopping, Paused, Running, or Stopped state.
- A VM instance in the Destroying state can be changed to the Unknown, Destroyed, Running, or Expunging state.
- A VM instance in the Destroyed state can be changed to the Stopped state.

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String	The IP address.	0.6
mac	String	The MAC address.	0.6
hypervisorType	String	The hypervisor type.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	0.6
deviceId	Integer	The device ID.	0.6
type	String	The NIC type.	0.6
usedIps	List	For more information, see usedIps	0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6

Name	Type	Description	Starting Version
rootImageUuid	String	The root image UUID.	0.6
installPath	String	The installation path.	0.6
type	String	The volume type.	0.6
format	String	The volume format.	0.6
size	Long	The volume size.	0.6
actualSize	Long	The actual size of the volume.	0.6
deviceId	Integer		0.6
state	String	The volume state.	0.6
status	String	The volume status.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6
volumeQos	String	The volume QoS, in the format of total=1048576	3.2.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.0
vmInstanceUuid	String	The VM instance UUID.	4.5.0
deviceId	Integer	The drive sequence number.	4.5.0
isoUuid	String	The ISO image UUID.	4.5.0
isoInstallPath	String	The mount path of the ISO image.	4.5.0
name	String	The resource name.	4.5.0
description	String	The detailed description of the resource.	4.5.0
createDate	Timestamp	The creation date.	4.5.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.5.0

SDK Sample

Java SDK

```
QueryVmInstanceAction action = new QueryVmInstanceAction();
action.conditions = asList("name=vm1", "vmNics.ip=192.168.20.100");
action.sessionId = "1a2f35770a8e4e53b4bfb9d0d7ae7e50";
QueryVmInstanceAction.Result res = action.call();
```

Python SDK

```
QueryVmInstanceAction action = QueryVmInstanceAction()
action.conditions = ["name=vm1", "vmNics.ip=192.168.20.100"]
action.sessionId = "0dd4f4ec663f4502ba3fedda9d0ebc1b"
QueryVmInstanceAction.Result res = action.call()
```

5.1.1.12 StartVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "startVmInstance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"startVmInstance":{}}' \
```

```
http://localhost:8080/zstack/v1/vm-
instances/647db3dbf974372ead60d4ba1c9efac3/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
clusterUuid	String	body (contained in the startVmInstance structure)	Optional. The cluster UUID. If specified, the VM instance will be started in the specified cluster.		0.6
hostUuid	String	body (contained in the startVmInstance structure)	Optional. The host UUID. If specified, the VM instance will be started on the specified host. This parameter can override clusterUuid .		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you start a VM instance in ZStack Cloud, the cloud records whether a VPC vRouter is added to an HA group. Note that you can add the **haUuid** option to **SystemTags**.
 - Format of the **haUuid** option: `haUuid::HA_GROUP_UUID`
 - Example: `haUuid::e2af8f869eff49d2a3d6f86cad27090`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "4fe3f157d2ed3952a528f7a7ad66b458",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "05f33790e80833f09d1e41d5dcce1cdb",
    "clusterUuid": "ed1f4443dfe83da2a4682eea6a6ff8a4",
    "imageUuid": "9d708bf2d7793d41a8d6aa91ffd8c997",
    "hostUuid": "5822c13181e73c7e8542884ba85e9339",
    "lastHostUuid": "b3ead9d0161f3c228cc4d4663f4886a4",
    "instanceOfferingUuid": "2799e9b24b173e47b63d15ee1e37212d",
    "rootVolumeUuid": "53bd57a8d319373eb2e957bb34d10ad6",
    "platform": "Linux",
    "defaultL3NetworkUuid": "0ed1289e1a5f333f9defdec7a6fd5f74",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "b2293d252de931be87ca1ac4379269e9",
        "vmInstanceUuid": "4fe3f157d2ed3952a528f7a7ad66b458",
        "usedIpUuid": "78c4d1ced5cb3d5f89dabf4798819ecc",
        "l3NetworkUuid": "0ed1289e1a5f333f9defdec7a6fd5f74",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "53bd57a8d319373eb2e957bb34d10ad6",
        "name": "Root-Volume-For-VM-4fe3f157d2ed3952a528f7a7ad66b458",
        "primaryStorageUuid": "6d34e188053e31efb36aeae392a6d92e",
        "vmInstanceUuid": "4fe3f157d2ed3952a528f7a7ad66b458",
        "diskOfferingUuid": "44980553f47e3bfe94674c2004a9ffe7",
        "rootImageUuid": "9d708bf2d7793d41a8d6aa91ffd8c997",
        "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-53bd57a8d319373eb2e957bb34d10ad6/53bd57a8d319373eb2e957bb34d10ad6.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 1.073741824E11,
        "actualSize": 2.147483648E10,
        "deviceId": 0.0,
        "state": "Enabled",
        "status": "Ready",
        "createDate": "Nov 14, 2017 10:20:57 PM",

```



```

    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
StartVmInstanceAction action = new StartVmInstanceAction();
action.uuid = "22771459f2184f2f96c8da84b7e660d8";
action.sessionId = "a6beddb0aa754b4b992d92dc13ff0c2c";
```

```
StartVmInstanceAction.Result res = action.call();
```

Python SDK

```
StartVmInstanceAction action = StartVmInstanceAction()
action.uuid = "b2b7503e1fdd482594700cf35715122a"
action.sessionId = "207b50ceb1b64ea48a7446b92932d4cb"
StartVmInstanceAction.Result res = action.call()
```

5.1.1.13 StopVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "stopVmInstance": {
    "type": "grace"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"stopVmInstance":{"type":"grace"}}' \
http://localhost:8080/zstack/v1/vm-
instances/5e2f112ee1ef3467933e1006b639b023/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the stopVmInstance structure)	Optional. The method to stop (shut down) the VM instance. Options: grace: graceful shutdown. To use this method, make sure that the corresponding ACPI driver is installed in the VM instance. cold: cold shutdown, which means to power off the VM instance directly.	- grace - cold	0.6
systemTags	List	body	Optional. The system tags .		0.6
userTags	List	body	Optional. The system tags .		0.6
stopHA	String	body (contained in the stopVmInstance structure)	Optional. Completely stops the HA VM instance .		2.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "02b75a26397b347a8cf5cfaf5ce93ed1",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "2a9974ad7f7a343f908709094b509567",
    "clusterUuid": "e8626869bf793e0984bd4834c36582c4",
    "imageUuid": "7020002bfd163c9e8bf59e94b3948b3b",
    "hostUuid": "7cfc6cb3cb0d310281452e452f6fd8a5",
    "lastHostUuid": "e8b813355af136bdb5c34b1a760e52d4",
    "instanceOfferingUuid": "c8e4bc576e8633698b340ca572f45ae8",
    "rootVolumeUuid": "96b787ec9551331c907060238dff530f",
    "platform": "Linux",
    "defaultL3NetworkUuid": "6721d14d610037f193c17cb3b6f361b4",
    "type": "UserVm",
    "hypervisorType": "KVM",
```

```

"memorySize": 8.589934592E9,
"cpuNum": 1.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM",
"state": "Stopped",
"vmNics": [
  {
    "uuid": "f13d9a01d5ff3953823f65f78bd94668",
    "vmInstanceUuid": "02b75a26397b347a8cf5cfaf5ce93ed1",
    "usedIpUuid": "9f7711d4a8b43c1ea582cedf98f44759",
    "l3NetworkUuid": "6721d14d610037f193c17cb3b6f361b4",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"allVolumes": [
  {
    "uuid": "96b787ec9551331c907060238dff530f",
    "name": "Root-Volume-For-VM-02b75a26397b347a8cf5cfaf5ce93ed1",
    "primaryStorageUuid": "d265ae8ea11d346cb0e657d46b6f2f86",
    "vmInstanceUuid": "02b75a26397b347a8cf5cfaf5ce93ed1",
    "diskOfferingUuid": "264dd6d637953cdda2ec0fc0c083a1fa",
    "rootImageUuid": "7020002bfd163c9e8bf59e94b3948b3b",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-96b787ec9551331c907060238dff530f/96b787ec95
51331c907060238dff530f.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstance Inventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null	0.6
opaque	LinkedHashMap	The reserved field. Default value: null	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOf feringUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3N etworkUuid	String		0.6
type	String		0.6

Name	Type	Description	Starting Version
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6

Name	Type	Description	Starting Version
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6

Name	Type	Description	Starting Version
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
StopVmInstanceAction action = new StopVmInstanceAction();
action.uuid = "b3edccc737664a24b6b8be3a249b87fb";
action.type = "grace";
action.sessionId = "7f36a5bff7ae49c185302dca91470133";
StopVmInstanceAction.Result res = action.call();
```

Python SDK

```
StopVmInstanceAction action = StopVmInstanceAction()
action.uuid = "a6162b0be4104d069ab42f708d7da150"
action.type = "grace"
action.sessionId = "d369764a2e29479c9e70f86a3b4662e3"
StopVmInstanceAction.Result res = action.call()
```

5.1.1.14 RebootVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "rebootVmInstance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"rebootVmInstance":{}}' \
http://localhost:8080/zstack/v1/vm-
instances/5bae2edd13e73805a552df9a2aa8d4c9/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "c8ce67b231bc3a7b998fc5c514fa521a",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "dd0c0aae391d39b7b7904146604e5e61",
    "clusterUuid": "5adf2ae4f6d5339d80c8e698551358fc",
    "imageUuid": "2ad3afd4feac3e618b2603c42d6b2693",
    "hostUuid": "1d7c0568f02e3c85a1fd79aa0c7fc60d",
    "lastHostUuid": "cb0d0894cae53b83b44fe90923b31f6d",
    "instanceOfferingUuid": "5aefd43e8c833cebab918cdae7a5e128",
    "rootVolumeUuid": "627c0f9203ad3a5ea4ad443674aea323",
    "platform": "Linux",
    "defaultL3NetworkUuid": "e03922c991a03dc1b4e3b8988d06f65c",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "1bbcdfc8626930bc8113fb9ec805bfea",
```

```

    "vmInstanceUuid": "c8ce67b231bc3a7b998fc5c514fa521a",
    "usedIpUuid": "b73449f396c035c39f1074c5499589f7",
    "l3NetworkUuid": "e03922c991a03dc1b4e3b8988d06f65c",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  ],
  "allVolumes": [
    {
      "uuid": "627c0f9203ad3a5ea4ad443674aea323",
      "name": "Root-Volume-For-VM-c8ce67b231bc3a7b998fc5c514fa521a",
      "primaryStorageUuid": "b0f0f4cbc97a31aaaaaa2e83e769c378",
      "vmInstanceUuid": "c8ce67b231bc3a7b998fc5c514fa521a",
      "diskOfferingUuid": "59c4db99fb6e3504ae5fe4e5a05dadd8",
      "rootImageUuid": "2ad3afd4feac3e618b2603c42d6b2693",
      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-627c0f9203ad3a5ea4ad443674aea323/627c0f9203
ad3a5ea4ad443674aea323.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6

Name	Type	Description	Starting Version
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6

Name	Type	Description	Starting Version
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
RebootVmInstanceAction action = new RebootVmInstanceAction();
action.uuid = "69a8c3323e404923ac413a913b03e1c6";
action.sessionId = "6c8bbc1f21c64176b782ac60e6ee39da";
RebootVmInstanceAction.Result res = action.call();
```

Python SDK

```
RebootVmInstanceAction action = RebootVmInstanceAction()
action.uuid = "f2dfa73793d048148a951f59cee38e65"
action.sessionId = "656c2f3efb3844efb6fad3f37e2fb6b8"
```

```
RebootVmInstanceAction.Result res = action.call()
```

5.1.1.15 PauseVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "pauseVmInstance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"pauseVmInstance":{}}' \
http://localhost:8080/zstack/v1/vm-instances/
b7defb2dd07a38a8af7b98737a92080d/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "490ed95a1006364fb8ed3832d64ed119",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "1b6f8b5259a636cc9dc599fac936ca4a",
    "clusterUuid": "4ae4901e17f93e20b9a4c95a5546c90a",
    "imageUuid": "dd3deeda9faa38768d7bdd59fd10775b",
    "hostUuid": "3d8f04e1ea8a39cd96e0fd5a09ac8629",
    "lastHostUuid": "f57b7a0e6d5b3c53bb6048c47cb81fa0",
    "instanceOfferingUuid": "152010d532313e1d89bb91f50d1fd200",
    "rootVolumeUuid": "e18005eff51c353288cbf61d28261053",
    "platform": "Linux",
    "defaultL3NetworkUuid": "ba83a71ef20533309034e18c5b3b714c",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "8d33b79019d731fe901838aaf01e14f3",
        "vmInstanceUuid": "490ed95a1006364fb8ed3832d64ed119",
        "usedIpUuid": "ae18a8f6bd7e3d4d8cf2ecbbbc74edd7",
        "l3NetworkUuid": "ba83a71ef20533309034e18c5b3b714c",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "e18005eff51c353288cbf61d28261053",
        "name": "Root-Volume-For-VM-490ed95a1006364fb8ed3832d64ed119",
        "primaryStorageUuid": "ca53fd5c27eb352b9fefbcd8740a1334",
        "vmInstanceUuid": "490ed95a1006364fb8ed3832d64ed119",
        "diskOfferingUuid": "53f444b07ac83298be45d2bf3338cf10",
        "rootImageUuid": "dd3deeda9faa38768d7bdd59fd10775b",
        "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-e18005eff51c353288cbf61d28261053/e18005eff51c353288cbf61d28261053.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 1.073741824E11,
        "actualSize": 2.147483648E10,
        "deviceId": 0.0,
        "state": "Enabled",
        "status": "Ready",
        "createDate": "Nov 14, 2017 10:20:57 PM",

```

```

    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String	The root volume image UUID.	4.1.0
installPath	String	The installation path of the volume on the primary storage.	4.1.0
type	String	The volume type.	4.1.0
format	String	The volume format.	4.1.0
size	Long	The volume size.	4.1.0
actualSize	Long	The actual size of the volume.	4.1.0
deviceId	Integer		4.1.0
state	String	Indicates whether is enabled.	4.1.0
status	String	The volume status.	4.1.0
createDate	Timestamp	The creation date.	4.1.0
lastOpDate	Timestamp	The last operation date.	4.1.0
isShareable	Boolean	Indicates whether the volume is a shared volume.	4.1.0

Name	Type	Description	Starting Version
volumeQos	String	The volume QoS. For example, total=1048576.	4.1.0

SDK Sample

Java SDK

```
PauseVmInstanceAction action = new PauseVmInstanceAction();
action.uuid = "4d525113c59c4e91bfa890d524cfee0b";
action.sessionId = "715443ea455b425f89759275d9dc1078";
PauseVmInstanceAction.Result res = action.call();
```

Python SDK

```
PauseVmInstanceAction action = PauseVmInstanceAction()
action.uuid = "f0760df45b8d4573888f3f64c50a46d7"
action.sessionId = "9083c2afd08b4a64a90f4b5cefc64d04"
PauseVmInstanceAction.Result res = action.call()
```

5.1.1.16 ResumeVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "resumeVmInstance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```



```
-X PUT -d '{"resumeVmInstance":{}}' \
http://localhost:8080/zstack/v1/vm-instances/
ab9bacf8136c3c55ac77dae5f6d6f503/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "83d00b5be8ec37fe858c841e96200824",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "73e6cf01cbad3ca19e3844369ebc30c1",
    "clusterUuid": "85cbb3a1d2da3dd6bcb8adbb4dead1e4",
    "imageUuid": "0107a95e6c4d3617be678f94908b440b",
    "hostUuid": "19c81f0e22243a98b249d9fa725f20a7",
    "lastHostUuid": "969ed03e2e0835b79a61f796d9f4c702",
    "instanceOfferingUuid": "befdd124574c38669a2b236b509506bb",
    "rootVolumeUuid": "958e1ad5cf2038ca875f9d31dc721e5c",
    "platform": "Linux",
    "defaultL3NetworkUuid": "1f78a72f5f663f8ab4bcfb0b71e94396",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "ee337502670e323a8fb85134e36471bc",
        "vmInstanceUuid": "83d00b5be8ec37fe858c841e96200824",
        "usedIpUuid": "8b1565028e06391c9a88b2d8536bf6de",
        "l3NetworkUuid": "1f78a72f5f663f8ab4bcfb0b71e94396",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,

```

```

        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    ],
    "allVolumes": [
        {
            "uuid": "958e1ad5cf2038ca875f9d31dc721e5c",
            "name": "Root-Volume-For-VM-83d00b5be8ec37fe858c841e96200824",
            "primaryStorageUuid": "25ff56ff28e03d9ebc584df9f7d3cf99",
            "vmInstanceUuid": "83d00b5be8ec37fe858c841e96200824",
            "diskOfferingUuid": "c976dbc160ec31e695f951bb2198c33c",
            "rootImageUuid": "0107a95e6c4d3617be678f94908b440b",
            "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-958e1ad5cf2038ca875f9d31dc721e5c/958e1ad5cf
2038ca875f9d31dc721e5c.qcow2",
            "type": "Root",
            "format": "qcow2",
            "size": 1.073741824E11,
            "actualSize": 2.147483648E10,
            "deviceId": 0.0,
            "state": "Enabled",
            "status": "Ready",
            "createDate": "Nov 14, 2017 10:20:57 PM",
            "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
    ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6

Name	Type	Description	Starting Version
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6

Name	Type	Description	Starting Version
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
ResumeVmInstanceAction action = new ResumeVmInstanceAction();
action.uuid = "c1304094962b4254b4d36c6e2744c2d5";
action.sessionId = "45e29136a13c49108df2fc7671c72431";
ResumeVmInstanceAction.Result res = action.call();
```

Python SDK

```
ResumeVmInstanceAction action = ResumeVmInstanceAction()
action.uuid = "24876a8330574db78649efaf8bce7e62"
action.sessionId = "10f42b569887433fabdbb82672d32269"
ResumeVmInstanceAction.Result res = action.call()
```

5.1.1.17 ReimageVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceId}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reimageVmInstance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reimageVmInstance":{}}' \
http://localhost:8080/zstack/v1/vm-instances/
f38615d717a438c39eca3b8b560a00ef/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstance Uuid	String	url	The VM instance UUID		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "efb855424e2b38d3bc320f105a13bc0b",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "33a8c6dea1773921b68e25fcb24ac6be",
    "clusterUuid": "18425d00b5323689892b7486cf73ddaf",
    "imageUuid": "7386cfa57d8530e3a41b7f55a3a5509c",
    "hostUuid": "1e7f7702093d3c2e92497116a4dfd8b2",
    "lastHostUuid": "99a8c35c2f283c4799752e4656e8628f",
    "instanceOfferingUuid": "29307f05cde03ec5bd559bb88fd8aefe",
    "rootVolumeUuid": "5cf22d393d493a15866a172f5d5429b4",
    "platform": "Linux",
    "defaultL3NetworkUuid": "249a8e5928ca3b2694766c235c1111ea",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "cae339f2a70834fe9e7d65f88f09f6f6",
```

```

    "vmInstanceUuid": "efb855424e2b38d3bc320f105a13bc0b",
    "usedIpUuid": "47d53a778b1a38c9992cc87e536ade2b",
    "l3NetworkUuid": "249a8e5928ca3b2694766c235c1111ea",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  ],
  "allVolumes": [
    {
      "uuid": "5cf22d393d493a15866a172f5d5429b4",
      "name": "Root-Volume-For-VM-efb855424e2b38d3bc320f105a13bc0b",
      "primaryStorageUuid": "ed936519554c3237b5dd13745625defa",
      "vmInstanceUuid": "efb855424e2b38d3bc320f105a13bc0b",
      "diskOfferingUuid": "3f94a3d296b43309bb1be95baabf088c",
      "rootImageUuid": "7386cfa57d8530e3a41b7f55a3a5509c",
      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-5cf22d393d493a15866a172f5d5429b4/5cf22d393d
493a15866a172f5d5429b4.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6

Name	Type	Description	Starting Version
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6

Name	Type	Description	Starting Version
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
ReimageVmInstanceAction action = new ReimageVmInstanceAction();
action.vmInstanceUuid = "b733a61173bc4a85974a5a1391b62d12";
action.sessionId = "04d122b7e2934964af3c2af59130e600";
ReimageVmInstanceAction.Result res = action.call();
```

Python SDK

```
ReimageVmInstanceAction action = ReimageVmInstanceAction()
action.vmInstanceUuid = "9ef51a211ed14d839807bfe2e2822f1a"
action.sessionId = "a8ccdc85e2e4314b6a4a5379b5a9df9"
```

```
ReimageVmInstanceAction.Result res = action.call()
```

5.1.1.18 CreateDirectory

API Request

URLs

```
POST zstack/v1/create/directory
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "directory",
    "parentUuid": "a76994f58191389da72d093afdad61c7",
    "zoneUuid": "64a7b0eae75d336cb6954c6efedc79dc",
    "type": "default"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"directory","parentUuid":"a76994f58191389da72d093afdad61c7","zoneUuid":"6
http://localhost:8080/zstack/v1/create/directory
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.6.0

Name	Type	Location	Description	Optional Value	Starting Version
parentUuid	String	body (contained in the params structure)	The parent directory UUID.		4.6.0
zoneUuid	String	body (contained in the params structure)	The zone UUID.		4.6.0
type	String	body (contained in the params structure)			4.6.0
resourceUuid	String	body (contained in the params structure)	The resource UUID.		4.6.0
tagUuids	List	body (contained in the params structure)	The tag UUID list.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ac818da023833bcd83728b6374c2a4f0",
    "name": "test",
    "groupName": "admin/first/second",
    "parentUuid": "d6e5792bd4ef374ba99948ae83d3a7c3",
    "rootDirectoryUuid": "cf6a11447d5f38dd95a91cc392105b16",
    "zoneUuid": "3714f0cd0f3233dc96dc5fec67886c29",
    "type": "default"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.0
inventory	DirectoryInventory	See inventory .	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0

Name	Type	Description	Starting Version
name	String	The resource name.	4.6.0
groupName	String	The name of the group that the directory is affiliated to.	4.6.0
parentUuid	String	The parent directory UUID.	4.6.0
rootDirectoryUuid	String	The root directory UUID.	4.6.0
zoneUuid	String	The zone UUID.	4.6.0
type	String	The directory type.	4.6.0
createDate	Timestamp	The creation time.	4.6.0
lastOpDate	Timestamp	The last update time.	4.6.0

SDK Sample

Java SDK

```
CreateDirectoryAction action = new CreateDirectoryAction();
action.name = "directory";
action.parentUuid = "a76994f58191389da72d093afdad61c7";
action.zoneUuid = "64a7b0eae75d336cb6954c6efedc79dc";
action.type = "default";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateDirectoryAction.Result res = action.call();
```

Python SDK

```
CreateDirectoryAction action = CreateDirectoryAction()
action.name = "directory"
action.parentUuid = "a76994f58191389da72d093afdad61c7"
action.zoneUuid = "64a7b0eae75d336cb6954c6efedc79dc"
action.type = "default"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
CreateDirectoryAction.Result res = action.call()
```

5.1.1.19 DeleteDirectory

API Request

URLs

```
DELETE zstack/v1/delete/directory
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/delete/directory
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body	The resource UUID.		4.6.0
deleteMode	String	body	Optional. The deletion mode.	• Permissive • Enforcing • Permissive	4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteDirectoryAction action = new DeleteDirectoryAction();
action.uuid = "7e0f83ed1d1c3e0b81b4d93afa882ead";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteDirectoryAction.Result res = action.call();
```

Python SDK

```
DeleteDirectoryAction action = DeleteDirectoryAction()
action.uuid = "7e0f83ed1d1c3e0b81b4d93afa882ead"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteDirectoryAction.Result res = action.call()
```

5.1.1.20 AddResourcesToDirectory

API Request

URLs

```
POST zstack/v1/add/resources/directory
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "resourceUuids": [
      "ac852a8d7c8f3e15811e8f647f24d0f7",
      "5bde5466936638648574ac73fa0abeb0"
    ],
    "directoryUuid": "1eb4cb0f7ed33305aba79b4af9ac4594"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"resourceUids":
["ac852a8d7c8f3e15811e8f647f24d0f7", "5bde5466936638648574ac73fa0abeb0"], "directory
http://localhost:8080/zstack/v1/add/resources/directory
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
resourceUids	List	body (contained in the params structure)	The resource UUID.		4.6.0
directoryUuid	String	body (contained in the params structure)	The directory UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddResourcesToDirectoryAction action = new AddResourcesToDirectoryAction();
action.resourceUids = asList("ac852a8d7c8f3e15811e8f647f24d0f7", "5bde5466936638648574ac73fa0abeb0");
action.directoryUuid = "1eb4cb0f7ed33305aba79b4af9ac4594";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AddResourcesToDirectoryAction.Result res = action.call();
```

Python SDK

```
AddResourcesToDirectoryAction action = AddResourcesToDirectoryAction()
action.resourceUuids = [ac852a8d7c8f3e15811e8f647f24d0f7, 5bde546693
6638648574ac73fa0abeb0]
action.directoryUuid = "1eb4cb0f7ed33305aba79b4af9ac4594"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddResourcesToDirectoryAction.Result res = action.call()
```

5.1.1.21 MoveResourcesToDirectory

API Request

URLs

```
PUT zstack/v1/move/resources/directory
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "moveResourcesToDirectory": {
    "resourceUuids": [
      "4330b08677e93bdb9c02f2e62d5e1136",
      "1cba5c53426e34118c3b35821d9fcfa6"
    ],
    "directoryUuid": "192dda86ccb3388c97a272775b9d292e"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"moveResourcesToDirectory":{"resourceUuids":
["4330b08677e93bdb9c02f2e62d5e1136","1cba5c53426e34118c3b35821d9fcfa6"],"director
http://localhost:8080/zstack/v1/move/resources/directory
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
resourceUuids	List	body (contained in the params structure)	The resource UUID.		4.6.0
directoryUuid	String	body (contained in the params structure)	The directory UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
MoveResourcesToDirectoryAction action = new MoveResourcesToDirectoryAction();
action.resourceUuids = asList("4330b08677e93bdb9c02f2e62d5e1136", "1cba5c53426e34118c3b35821d9fcfa6");
action.directoryUuid = "192dda86ccb3388c97a272775b9d292e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
MoveResourcesToDirectoryAction.Result res = action.call();
```

Python SDK

```
MoveResourcesToDirectoryAction action = MoveResourcesToDirectoryAction()
action.resourceUuids = [4330b08677e93bdb9c02f2e62d5e1136, 1cba5c53426e34118c3b35821d9fcfa6]
action.directoryUuid = "192dda86ccb3388c97a272775b9d292e"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
MoveResourcesToDirectoryAction.Result res = action.call()
```

5.1.1.22 RemoveResourcesFromDirectory

API Request

URLs

```
DELETE zstack/v1/remove/resources/directory
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/remove/resources/directory
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
resourceUuids	List	body (contained in the params structure)	The resource UUID.		4.6.0
directoryUuid	String	body (contained in the params structure)	The directory UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
  }
}
```

```

    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```

RemoveResourcesFromDirectoryAction action = new RemoveResourcesFromDirectoryAction();
action.resourceUuids = asList("564a0f94cf5432fea482f3b415730984", "6278513ce2ad336f9083ef62a49c614c");
action.directoryUuid = "5612979b05e438aabefc6c7978aed875";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveResourcesFromDirectoryAction.Result res = action.call();

```

Python SDK

```

RemoveResourcesFromDirectoryAction action = RemoveResourcesFromDirectoryAction()
action.resourceUuids = [564a0f94cf5432fea482f3b415730984, 6278513ce2ad336f9083ef62a49c614c]
action.directoryUuid = "5612979b05e438aabefc6c7978aed875"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveResourcesFromDirectoryAction.Result res = action.call()

```

5.1.1.23 UpdateDirectory

API Request

URLs

```
PUT zstack/v1/update/directory
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "updateDirectory": {
    "uuid": "66a79f93fd5d3d269302297dc1459f6e",
    "name": "test"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateDirectory":
{"uuid":"66a79f93fd5d3d269302297dc1459f6e","name":"test"}}' http://
localhost:8080/zstack/v1/update/directory
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in the params structure)	The resource UUID.		4.6.0
name	String	body (contained in the params structure)	The resource name.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ce9c80c271df30eba545af5b7efc6b09",
    "name": "test",
    "groupName": "admin/first/second",
    "parentUuid": "5cc7f45b66783385b3f4a9d1ef109a5d",
    "rootDirectoryUuid": "57290934e96a305fbdad6ccb33bb64b8",
    "zoneUuid": "b103949274663c19b9675ea6f6505dd5",
    "type": "default"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.6.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	VmNicInventory	See inventory .	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0
groupName	String	The name of the group that the directory is affiliated to.	4.6.0

Name	Type	Description	Starting Version
parentUuid	String	The parent directory UUID.	4.6.0
rootDirectoryUuid	String	The root directory UUID.	4.6.0
zoneUuid	String	The zone UUID.	4.6.0
type	String	The directory type.	4.6.0
createDate	Timestamp	The creation time.	4.6.0
lastOpDate	Timestamp	The last operation time	4.6.0

SDK Sample

Java SDK

```
UpdateDirectoryAction action = new UpdateDirectoryAction();
action.uuid = "66a79f93fd5d3d269302297dc1459f6e";
action.name = "test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateDirectoryAction.Result res = action.call();
```

Python SDK

```
UpdateDirectoryAction action = UpdateDirectoryAction()
action.uuid = "66a79f93fd5d3d269302297dc1459f6e"
action.name = "test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateDirectoryAction.Result res = action.call()
```

5.1.1.24 QueryDirectory

API Request

URLs

```
GET zstack/v1/directories
GET zstack/v1/directories/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/directories?
q=uuid=39b8a9d8cb2e32b893bd82c5c2be7e24
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/
directories/4cfe730d431f3550994064911c1c6e0e
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryDirectory`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "b3c48edddae03e05b328a5b0926ae353",
      "name": "test",
      "groupName": "admin/test",
      "parentUuid": "d0dc05fcf5753c6888d0b082bc0f9caf",
      "rootDirectoryUuid": "3830935ca3823d05b9010f242139fad4",
      "zoneUuid": "0f7266aa26f339cb8f0b47a73d0ddc30",
      "type": "vminstance"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	Boolean		5.3.20
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.20
inventories	List	See inventories .	5.3.20

#inventories

Name	Type	描述	起始版本
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
groupName	String	The group name.	5.3.20

Name	Type	描述	起始版本
parentUuid	String	The parent directory UUID.	5.3.20
rootDirectoryUuid	String	The root directory UUID.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
type	String	The directory type.	5.3.20
createDate	Timestamp	The creation time.	5.3.20
lastOpDate	Timestamp	The last operation time	5.3.20

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.3.20
description	String	The brief description of the error.	5.3.20
details	String	The details about the error.	5.3.20
elaboration	String	The reserved field. Default value: null.	5.3.20
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.20
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.20

SDK Sample

Java SDK

```
QueryDirectoryAction action = new QueryDirectoryAction();
action.conditions = asList("uuid=b07055c553733af095d0714456157626");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryDirectoryAction.Result res = action.call();
```

Python SDK

```
QueryDirectoryAction action = QueryDirectoryAction()
action.conditions = ["uuid=e38b6311766c3f88ab31c2d02db4e58f"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryDirectoryAction.Result res = action.call()
```

5.1.1.25 MigrateVm

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "migrateVm": {
    "hostUuid": "7571fb72e52b3fcab1a6992e7eef4cce",
    "migrateFromDestination": false,
    "allowUnknown": false,
    "downTime": 300
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \-X PUT -d
'{"migrateVm":
{"hostUuid":"7571fb72e52b3fcab1a6992e7eef4cce", "migrateFromDestination":false, "a
\
```

```
http://localhost:8080/zstack/v1/vm-instances/
c53c9b6235703b8ab96c1cc35859242d/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		0.6
hostUuid	String	body (contained in the migrateVm structure)	Optional. The host UUID.		0.6
migrateFromDestination	Boolean	body (contained in the migrateVm structure)	Optional. Initiates the migration command from the destination host.		2.3
allowUnknown	boolean	body (contained in the migrateVm structure)	Optional. Whether allow VM instances whose state is unknown.		4.6.21
strategy	String	body (contained in the migrateVm structure)	Optional.	auto-converge	4.6.21
downTime	Integer	body (contained in the migrateVm structure)	Optional. The VM down time during the hot migration.		4.6.21
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1124f021672c3de9848fa567b632a6bb",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "fd5d0dfdc936e284792eabf72c52db",
    "clusterUuid": "f42a18b125ba3d61bae560bccec84741",
    "imageUuid": "5e6155ea150b31bc8f7789acf9f42b12",
    "hostUuid": "d51ee2645a3130ffb294a0c28a121c5c",
    "lastHostUuid": "9d32be2f483b3995bff142d072fb410a",
    "instanceOfferingUuid": "07d4a48c8cd5365992c6916b07f770ef",
    "rootVolumeUuid": "4172134623e6332fbb9092cd105bde77",
    "platform": "Linux",
    "defaultL3NetworkUuid": "4f49dce686663b81b7d8acbe75a879ac",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8589934592,
    "cpuNum": 1,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "f5231a1c912e3a6592f1816b5812b660",
        "vmInstanceUuid": "1124f021672c3de9848fa567b632a6bb",
        "usedIpUuid": "c9f0e849407f3f5d86376560e00f31ae",
        "l3NetworkUuid": "4f49dce686663b81b7d8acbe75a879ac",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0,
        "state": "enable",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "4172134623e6332fbb9092cd105bde77",
        "name": "Root-Volume-For-VM-1124f021672c3de9848fa567b632a6bb",
        "primaryStorageUuid": "fe9f085199453903b09c5de54b6d194e",
        "vmInstanceUuid": "1124f021672c3de9848fa567b632a6bb",
        "diskOfferingUuid": "66805a23b6e3362d9527f3f4dcfe4402",
        "rootImageUuid": "5e6155ea150b31bc8f7789acf9f42b12",
        "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-4172134623e6332fbb9092cd105bde77/4172134623e6332fbb9092cd105bde77.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 107374182400,
        "actualSize": 21474836480,
        "deviceId": 0,
        "state": "Enabled",
        "status": "Ready",

```

```

    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmlInstance Inventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6

Name	Type	Description	Starting Version
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
architecture	String		4.6.21
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
guestOsType	String		4.6.21
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6
vmCdRoms	List	See vmCdRoms .	4.6.21

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.21
vmInstanceUuid	String	The VM instance UUID.	4.6.21
deviceId	Integer		4.6.21
isoUuid	String		4.6.21

Name	Type	Description	Starting Version
isoInstallPath	String		4.6.21
name	String	The resource name.	4.6.21
description	String	The detailed description of the resource.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21

SDK Sample

Java SDK

```
MigrateVmAction action = new MigrateVmAction();
action.vmInstanceUuid = "c53c9b6235703b8ab96c1cc35859242d";
action.hostUuid = "7571fb72e52b3fcab1a6992e7eef4cce";
action.migrateFromDestination = false;
action.allowUnknown = false;
action.downtime = 300;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
MigrateVmAction.Result res = action.call();
```

Python SDK

```
MigrateVmAction action = MigrateVmAction()
action.vmInstanceUuid = "c53c9b6235703b8ab96c1cc35859242d"
action.hostUuid = "7571fb72e52b3fcab1a6992e7eef4cce"
action.migrateFromDestination = false
action.allowUnknown = false
action.downtime = 300
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
MigrateVmAction.Result res = action.call()
```

5.1.1.26 QueryShareableVolumeVmInstanceRef

API Request

URLs

```
GET zstack/v1/volumes/vm-instances/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 9f5a9540d63e4ade922c141078b95af9" \
```

```
-X GET http://localhost:8080/zstack/v1/volumes/vm-instances/refs?
q=0c917562d5954544b37bf5e0ed0735a6&q=cddc1c17e94a43b5b50e1df53e076d11&q=2&q=Jan
22, 2017 2:41:37 PM&q=Jan 22, 2017 2:43:18 PM
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryShareableVolumeVmInstanceRef`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryShareableVolumeVmInstanceRefAction action = new QueryShare
ableVolumeVmInstanceRefAction();
action.conditions = asList("0c917562d5954544b37bf5e0ed0735a6", "
cddc1c17e94a43b5b50e1df53e076d11", "2", "Jan 22, 2017 2:41:37 PM", "Jan
22, 2017 2:43:18 PM");
action.sessionId = "9fa1cf123ab04b1691ea509bf48c9071";
QueryShareableVolumeVmInstanceRefAction.Result res = action.call();
```

Python SDK

```
QueryShareableVolumeVmInstanceRefAction action = QueryShareableVolume
VmInstanceRefAction()
action.conditions = ["0c917562d5954544b37bf5e0ed0735a6", "cddc1c17e9
4a43b5b50e1df53e076d11", "2", "Jan 22, 2017 2:41:37 PM", "Jan 22, 2017 2:
43:18 PM"]
action.sessionId = "730ddea9ae3246a0ad483f7b6e3bb49f"
```

```
QueryShareableVolumeVmInstanceRefAction.Result res = action.call()
```

5.1.1.27 GetVmMigrationCandidateHosts

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceUuid}/migration-target-hosts
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth cf673ad3be454b49b24c4405f67531f0" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/98995eddf4854acc8b80da119fee81d5/migration-target-hosts
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "zoneUuid": "09ba44cadab94a1a95ab0b5216ace46a",
      "name": "example",
      "uuid": "25a4d0f25f5649ae847e81869384f155",
      "clusterUuid": "d96488a7d4524609a66983de7eb1bc6c",
      "description": "example",
      "managementIp": "192.168.0.1",
      "hypervisorType": "KVM",
      "state": "Enabled",
      "status": "Connected",
      "totalCpuCapacity": 4.0,
```

```

    "availableCpuCapacity": 2.0,
    "totalMemoryCapacity": 4.0,
    "availableMemoryCapacity": 4.0,
    "createDate": "May 11, 2017 1:22:56 PM",
    "lastOpDate": "May 11, 2017 1:22:56 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
description	String	The detailed description of the resource.	0.6
managementIp	String		0.6
hypervisorType	String		0.6
state	String		0.6
status	String		0.6
totalCpuCapacity	Long		0.6
availableCpuCapacity	Long		0.6
cpuSockets	Integer		0.6
totalMemoryCapacity	Long		0.6
availableMemoryCapacity	Long		0.6
cpuNum	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
GetVmMigrationCandidateHostsAction action = new GetVmMigrationCandidateHostsAction();
action.vmInstanceUuid = "9949593f81604daeb21159f1e0525c4a";
action.sessionId = "fb98227d4c434087861e9157db2eb5f7";
GetVmMigrationCandidateHostsAction.Result res = action.call();
```

Python SDK

```
GetVmMigrationCandidateHostsAction action = GetVmMigrationCandidateHostsAction()
action.vmInstanceUuid = "8b530774005349c8b57b122b89d262d2"
action.sessionId = "a15e9d90559c4ed6b12e0ef05f77c493"
```



```
GetVmMigrationCandidateHostsAction.Result res = action.call()
```

5.1.1.28 GetCandidatePrimaryStoragesForCreatingVm

API Request

URLs

```
GET zstack/v1/vm-instances/candidate-storages
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/candidate-
storages?
imageUuid=5f977e1354aa300bb27e0584d52bb09a&l3NetworkUuids=0276c5ffc04731d6b671c97
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
imageUuid	String	query	The image UUID.		2.1
l3NetworkUuids	List	query	The L3 network UUID.		2.1
rootDiskOfferingUuid	String	query	Optional. The UUID of the disk offering used by the root volume. This parameter is required if the image type is ISO.		2.1
rootDiskSize	Long	query	Optional. The size of the root volume. You need to specify this		4.3.12

Name	Type	Location	Description	Optional Value	Starting Version
			parameter only when you set <code>imageUuid</code> to ISO and do not specify <code>rootDiskOfferingUuid</code> .		
<code>dataDiskOfferingUuids</code>	List	query	Optional. The UUID of the disk offering used by the data volume.		2.1
<code>dataDiskSizes</code>	List	query	Optional. The size of the data volume.		4.3.12
<code>zoneUuid</code>	String	query	Optional. The zone UUID.		2.1
<code>clusterUuid</code>	String	query	Optional. The cluster UUID.		2.1
<code>defaultL3NetworkUuid</code>	String	query	Optional. The UUID of the default L3 network.		2.1
<code>systemTags</code>	List	query	Optional. The system tags.		2.1
<code>userTags</code>	List	query	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "rootVolumePrimaryStorages": [
    {
      "uuid": "971ff3d5e8864cf691a8251022f400e2",
      "name": "example",
      "url": "/cloud_ps",
      "description": "example",
      "totalCapacity": 3.221225472E11,

```

```

      "availableCapacity": 2.147483648E11,
      "totalPhysicalCapacity": 3.221225472E11,
      "availablePhysicalCapacity": 2.147483648E11,
      "type": "LocalStorage",
      "state": "Enabled",
      "status": "Connected",
      "createDate": "Nov 9, 2017 9:38:50 PM",
      "lastOpDate": "Nov 9, 2017 9:38:50 PM",
      "attachedClusterUuids": [
        "1332f8ffa99844c6ae7286ca15bb6846"
      ]
    }
  ],
  "dataVolumePrimaryStorages": {
    "c1e5bafa00ce49368600670b9d724e7b": [
      {
        "uuid": "f9e90cd9878a4184b3951196e054b978",
        "name": "example",
        "url": "/opt/zstack/nfsprimarystorage/prim-f9e90cd987
8a4184b3951196e054b978",
        "description": "example",
        "totalCapacity": 3.221225472E11,
        "availableCapacity": 2.147483648E11,
        "totalPhysicalCapacity": 3.221225472E11,
        "availablePhysicalCapacity": 2.147483648E11,
        "type": "NFS",
        "state": "Enabled",
        "status": "Connected",
        "createDate": "Nov 9, 2017 9:38:50 PM",
        "lastOpDate": "Nov 9, 2017 9:38:50 PM",
        "attachedClusterUuids": [
          "b73387b8d0264553829b72b86e5c57f5"
        ]
      }
    ]
  }
}

```

Name	Type	Description	Starting Version
dataVolumePrimaryStorages	Map	The primary storages that are available to the data volume. Each primary storage corresponds to a data disk offering.	2.1
success	boolean	Whether the operation succeeds.	2.1
rootVolumePrimaryStorages	List	See rootVolumePrimaryStorages .	2.1
error	ErrorCode	See error .	2.1

#rootVolumePrimaryStorages

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
zoneUuid	String	The zone UUID.	2.1
name	String	The resource name.	2.1
url	String		2.1
description	String	The detailed description of the resource.	2.1
totalCapacity	Long		2.1
availableCapacity	Long		2.1
totalPhysicalCapacity	Long		2.1
availablePhysicalCapacity	Long		2.1
systemUsedCapacity	Long		2.1
type	String		2.1
state	String		2.1
status	String		2.1
mountPath	String		2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
attachedClusterUuids	List		2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1

Name	Type	Description	Starting Version
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

SDK Sample

Java SDK

```
GetCandidatePrimaryStoragesForCreatingVmAction action = new GetCandidatePrimaryStoragesForCreatingVmAction();
action.imageUuid = "5f977e1354aa300bb27e0584d52bb09a";
action.l3NetworkUuids = asList("0276c5ffc04731d6b671c972272bd10a");
action.dataDiskOfferingUuids = asList("0b2b7ff196113ed79dad6bf815a6033e", "cfad76f5d345387d9215773fcd5389c5");
action.clusterUuid = "90fac86c000b335396f995bef052fb41";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidatePrimaryStoragesForCreatingVmAction.Result res = action.call();
```

Python SDK

```
GetCandidatePrimaryStoragesForCreatingVmAction action = GetCandidatePrimaryStoragesForCreatingVmAction()
action.imageUuid = "5f977e1354aa300bb27e0584d52bb09a"
action.l3NetworkUuids = ["0276c5ffc04731d6b671c972272bd10a"]
action.dataDiskOfferingUuids = ["0b2b7ff196113ed79dad6bf815a6033e", "cfad76f5d345387d9215773fcd5389c5"]
action.clusterUuid = "90fac86c000b335396f995bef052fb41"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetCandidatePrimaryStoragesForCreatingVmAction.Result res = action.
call()
```

5.1.1.29 GetCandidateIsoForAttachingVm

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceId}/iso-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth fe731654cc114cc3b0cc1cb0bd437f77" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/1f65bf61248341708265de7d759828b2/iso-candidates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceId	String	url	The VM instance UUID		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "154c6715c5994bfd8c822fd6fc5792f8",
      "name": "TinyLinux",
      "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
      "mediaType": "RootVolumeTemplate",
      "platform": "Linux",
      "format": "qcow2",
      "backupStorageRefs": [
        {
          "id": 0.0,

```

```

        "imageUuid": "154c6715c5994bfd8c822fd6fc5792f8",
        "backupStorageUuid": "e7eed90ff5fd4448b3bee5e029c96636",
        "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe
694b182ebffd",
        "status": "Ready"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
status	String		0.6
size	Long		0.6
actualSize	Long		0.6
md5Sum	String		0.6
url	String		0.6
mediaType	String		0.6
guestOsType	String		0.6
type	String		0.6
platform	String		0.6
format	String		0.6
system	Boolean		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6
exportUrl	String		0.6

Name	Type	Description	Starting Version
exportMd5Sum	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
GetCandidateIsoForAttachingVmAction action = new GetCandidateIsoForAttachingVmAction();
action.vmInstanceUuid = "9602b2514d61444ebab065a9282851b1";
action.sessionId = "4d6f70aefa1141c7b54b3a1bb1c16e2b";
GetCandidateIsoForAttachingVmAction.Result res = action.call();
```

Python SDK

```
GetCandidateIsoForAttachingVmAction action = GetCandidateIsoForAttachingVmAction()
action.vmInstanceUuid = "1844fc9ceac541a7947079b6ce3bd077"
action.sessionId = "4e6c014978924a2d82177eed81bdd3d6"
GetCandidateIsoForAttachingVmAction.Result res = action.call()
```

5.1.1.30 GetCandidateVmForAttachingIso

API Request

URLs

```
GET zstack/v1/images/iso/{isoUuid}/vm-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 54ca471114824451b5b3e4cc22f9a927" \
-X GET http://localhost:8080/zstack/v1/images/iso/3e5e142462c54736b1880b43d49edeba/vm-candidates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
isoUuid	String	url	The ISO UUID		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "f95bdc72e9963a05b8f19b8817f09d9d",
      "name": "Test-VM",
      "description": "web server VM",
      "zoneUuid": "389fb59c478b3a9fbe08e0cb0cbb4e4f",
      "clusterUuid": "f1c45e63860e3e17b068db42533f008b",
      "imageUuid": "5ccbd867873f36318f72cd32c74ee540",
      "hostUuid": "73ebd6bfff3aa3745a0dff978edaf561",
      "lastHostUuid": "1e1c43855d9c3998bf9d1c237a36dcaa",
      "instanceOfferingUuid": "6ef7a28c90b93a5ebe659644e6a956fc",
      "rootVolumeUuid": "5a5ebf77b9d23ecb9034e6d64a9c3d51",
      "platform": "Linux",
      "defaultL3NetworkUuid": "d9a2bfe33f6831098b35adb8022c3d3c",
      "type": "UserVm",
      "hypervisorType": "KVM",
      "memorySize": 8.589934592E9,
      "cpuNum": 1.0,
      "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "state": "Stopped",
      "vmNics": [
        {
          "uuid": "cfdc9377501d3ed180572e8093aff0e0",
          "vmInstanceUuid": "f95bdc72e9963a05b8f19b8817f09d9d",
          "usedIpUuid": "a8a2f1fd54f83c41bab8d7c169776dd9",
          "l3NetworkUuid": "d9a2bfe33f6831098b35adb8022c3d3c",
          "ip": "192.168.1.10",
          "mac": "00:0c:29:bd:99:fc",
          "hypervisorType": "KVM",
          "netmask": "255.255.255.0",
          "gateway": "192.168.1.1",
          "deviceId": 0.0,
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ],
      "allVolumes": [
        {
          "uuid": "5a5ebf77b9d23ecb9034e6d64a9c3d51",
```

```

    "name": "Root-Volume-For-VM-f95bdc72e9963a05b8f19b8817f09d9d",
    "primaryStorageUuid": "092c642a80cf3f11886a57c50fc54fec",
    "vmInstanceUuid": "f95bdc72e9963a05b8f19b8817f09d9d",
    "diskOfferingUuid": "8f0377c24026357693b8ba14fa368d08",
    "rootImageUuid": "5ccbd867873f36318f72cd32c74ee540",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-5a5ebf77b9d23ecb9034e6d64a9c3d51/5a5ebf77b9d23ecb9034e6d64a9c3d51.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0

Name	Type	Description	Starting Version
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
GetCandidateVmForAttachingIsoAction action = new GetCandidateVmForAttachingIsoAction();
action.isoUuid = "c7824c614de74f908bc7d82e6f16ebe7";
action.sessionId = "24b72cf532ce4e87be824b510dfe8289";
GetCandidateVmForAttachingIsoAction.Result res = action.call();
```

Python SDK

```
GetCandidateVmForAttachingIsoAction action = GetCandidateVmForAttachingIsoAction()
action.isoUuid = "3916247f217c44de99603f16ebe141bd"
action.sessionId = "a43eacd5ff59473f844257917e0b705c"
GetCandidateVmForAttachingIsoAction.Result res = action.call()
```

5.1.1.31 AttachIsoToVmInstance

API Request

URLs

```
POST zstack/v1/vm-instances/{vmInstanceUuid}/iso/{isoUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST http://localhost:8080/zstack/v1/vm-instances/
b1105c5dd00f323d99aa182dee237628/iso/8f36a77ab76e3425a571a7f75fca2d69
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		0.6
isoUuid	String	url	The ISO UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you attach an ISO image to a VM instance in ZStack Cloud, you can specify the target CD-ROM by adding the **cdromUuid** option to **SystemTags**. The SystemTag is passed by using the **cdromUuid** parameter.
 - Format of the **cdromUuid** option: `cdromUuid::cdrom_xx_uuid`
 - Example: `cdromUuid::cdrom_xx_uuid`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7105b03e09794680b7ba1027f812c987",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "8fa381c6f74d4e6fb45fa83536dcd5b8",
    "clusterUuid": "e3ec6c0da6dd48318e4e714a653de68d",
    "imageUuid": "d74932c666774571a9fa1dfa648eb1be",
    "hostUuid": "7eae91b419e444dcb5964557048e8b98",
    "lastHostUuid": "d6e533fdf3704b77bb2417fdeaf49812",
    "instanceOfferingUuid": "5d92054212bc468bb1789c3343ed6472",
    "rootVolumeUuid": "2b0f6bb1aaf44768ad94b8fe2b747f5e",
    "platform": "Linux",
    "defaultL3NetworkUuid": "c9527ab637ed43d6a82ef64eaaebc7d4",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "May 11, 2017 1:23:01 PM",
    "lastOpDate": "May 11, 2017 1:23:01 PM",
    "state": "Running",
    "vmNics": [
```



```

    {
      "uuid": "f20b08a8c81b42959c6b33f34d012cfa",
      "vmInstanceUuid": "7105b03e09794680b7ba1027f812c987",
      "usedIpUuid": "1338d1697352464383dbdc9ba89311a6",
      "l3NetworkUuid": "c9527ab637ed43d6a82ef64eaaebc7d4",
      "ip": "192.168.1.10",
      "mac": "00:0c:29:bd:99:fc",
      "netmask": "255.255.255.0",
      "gateway": "192.168.1.1",
      "deviceId": 0.0,
      "createDate": "May 11, 2017 1:23:01 PM",
      "lastOpDate": "May 11, 2017 1:23:01 PM"
    }
  ],
  "allVolumes": [
    {
      "uuid": "2b0f6bb1aaf44768ad94b8fe2b747f5e",
      "name": "Root-Volume-For-VM-7105b03e09794680b7ba1027f812c987",
      "primaryStorageUuid": "5ceb65417c3a4e94a375f19bda2470b9",
      "vmInstanceUuid": "7105b03e09794680b7ba1027f812c987",
      "diskOfferingUuid": "d6caadf062514f2b8073faefd52fad46",
      "rootImageUuid": "d74932c666774571a9fa1dfa648eb1be",
      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/\
vol-2b0f6bb1aaf44768ad94b8fe2b747f5e/2b0f6bb1aaf44768ad94b8fe2b747f5e.
qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "May 11, 2017 1:23:01 PM",
      "lastOpDate": "May 11, 2017 1:23:01 PM"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID .	0.6
platform	String		0.6

Name	Type	Description	Starting Version
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
AttachIsoToVmInstanceAction action = new AttachIsoToVmInstanceAction
();
action.vmInstanceUuid = "6f18cd9b9c1d4a6a860bf08775572904";
action.isoUuid = "32ff7e18cd844e32a1b0225544ac9539";
action.sessionId = "d495ba4961e14d438c5e3ebb9c0f5996";
```

```
AttachIsoToVmInstanceAction.Result res = action.call();
```

Python SDK

```
AttachIsoToVmInstanceAction action = AttachIsoToVmInstanceAction()
action.vmInstanceId = "12819ba2af514022b355d474fe254fae"
action.isoUuid = "c907863d2fc84b729becedab2de5c31"
action.sessionId = "b3acb29da25f4bfaa9a6960b8be9c2ca"
AttachIsoToVmInstanceAction.Result res = action.call()
```

5.1.1.32 DetachIsoFromVmInstance

API Request

URLs

```
DELETE zstack/v1/vm-instances/{vmInstanceId}/iso?isoUuid={isoUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 402a9d5c22174d18b54daf3b989e1c59" \
-X DELETE http://localhost:8080/zstack/v1/vm-
instances/ee0d9801bd604235b2a20a87fe50c7a4/iso?
isoUuid=dffgdiofgerut566jveritynrt9w4c5u4tv9
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceId	String	url	The VM instance UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
isoUuid	String	body	Optional. The ISO UUID.		2.3.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "c11b752cf9ab3c1796932b6e2d31130b",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "38bce95d22c13e9f9b4ebbee43fb19ff",
    "clusterUuid": "9f22602c966b338b822653bfac3e01a0",
    "imageUuid": "7f367e399b5e3d15b077288235834a44",
    "hostUuid": "a99d812afd4136b3af5cc1ced6973ed4",
    "lastHostUuid": "51391439dfa437daa7915c6fba892418",
    "instanceOfferingUuid": "b2cd7abbfe28364399304140235314eb",
    "rootVolumeUuid": "ed654518b598324f8b2c5f2b4942ac32",
    "platform": "Linux",
    "defaultL3NetworkUuid": "f03ba780bfe73e45ab06aff246101170",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "5f41aff015d63ba5b58cb9596ccbfb24",
        "vmInstanceUuid": "c11b752cf9ab3c1796932b6e2d31130b",
        "usedIpUuid": "0b520f1c41f33ce9a62c70c0724e26b6",
        "l3NetworkUuid": "f03ba780bfe73e45ab06aff246101170",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "ed654518b598324f8b2c5f2b4942ac32",
        "name": "Root-Volume-For-VM-c11b752cf9ab3c1796932b6e2d31130b",
        "primaryStorageUuid": "db4c942c7a4c33cb9d2184c1dda9c431",
        "vmInstanceUuid": "c11b752cf9ab3c1796932b6e2d31130b",
        "diskOfferingUuid": "fbeca8e72bdc313c83767b3f40d1cd79",
        "rootImageUuid": "7f367e399b5e3d15b077288235834a44",
        "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-ed654518b598324f8b2c5f2b4942ac32/ed654518b598324f8b2c5f2b4942ac32.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 1.073741824E11,
        "actualSize": 2.147483648E10,
        "deviceId": 0.0,
        "state": "Enabled",
        "status": "Ready",
        "createDate": "Nov 14, 2017 10:20:57 PM",

```

```

    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstance Inventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6

Name	Type	Description	Starting Version
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6

Name	Type	Description	Starting Version
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
DetachIsoFromVmInstanceAction action = new DetachIsoFromVmInstanceAction();
action.vmInstanceUuid = "381bac8e696b4702aae2cfa5cdf8ae04";
action.sessionId = "4796188f38784439a721f2ef35a0d0d3";
DetachIsoFromVmInstanceAction.Result res = action.call();
```

Python SDK

```
DetachIsoFromVmInstanceAction action = DetachIsoFromVmInstanceAction()
action.vmInstanceUuid = "7cc1f3997d1745698276cbc26262f556"
action.sessionId = "1e1f179e29df418c9656aa5a006818cb"
```

```
DetachIsoFromVmInstanceAction.Result res = action.call()
```

5.1.1.33 GetVmAttachableDataVolume

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceId}/data-volume-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth cce1d38a40f1410ba1f4c4d466b19f29" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/1e56eb544ac746d0ac275894d8e46cf7/data-volume-candidates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceId	String	url	The VM instance UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "actualSize": 0,
      "createDate": "Feb 11, 2018 3:16:43 PM",
      "description": "",
      "diskOfferingUuid": "7342651134824ae4b0b8ccf2c3d6ff80",
      "format": "raw",
      "installPath": "ceph://pool-0dae37a4ed4845f9bd0b1135e39e32f1/265455ab64634a108c62b887e46cdb86",
      "isShareable": true,
      "lastOpDate": "Mar 13, 2018 3:45:20 PM",
      "name": "host-lc-2",
      "primaryStorageUuid": "3fb1fe025dd843a088f63638d759faaa",

```

```

        "size": 21474836480,
        "state": "Enabled",
        "status": "Ready",
        "type": "Data",
        "uuid": "265455ab64634a108c62b887e46cdb86"
    },
    ],
    "success": true
}

```

SDK Sample

Java SDK

```

GetVmAttachableDataVolumeAction action = new GetVmAttachableDataV
olumeAction();
action.vmInstanceId = "c754b7c60a0d487ba321c747e8864319";
action.sessionId = "d67ef888a4964f328bf754183a1b66c1";
GetVmAttachableDataVolumeAction.Result res = action.call();

```

Python SDK

```

GetVmAttachableDataVolumeAction action = GetVmAttachableDataV
olumeAction()
action.vmInstanceId = "d0f7a36665ae4875a6124e9babf7c4c9"
action.sessionId = "974281316f914ffea0a48c2b9e1569d1"
GetVmAttachableDataVolumeAction.Result res = action.call()

```

5.1.1.34 GetVmAttachableL3Network

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceId}/l3-networks-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth: 26f05abbc21441dc921a573eda1fed6b" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/16bf0d8cb1e346568e4cfba52c70a9c2/l3-networks-candidates

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstance Uuid	String	url	The VM instance UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "d2f77ca69b1448d3b8e063c3d551cf1b",
      "name": "private L3",
      "type": "L3BasicNetwork",
      "zoneUuid": "67a6601dc8dd476ebca371123ff03f14",
      "l2NetworkUuid": "94bdfbf080b346e7a3ac2f44f574cc4a",
      "state": "Enabled",
      "createDate": "Apr 24, 2017 7:11:08 PM",
      "lastOpDate": "Apr 24, 2017 7:11:08 PM",
      "ipRanges": [
        {
          "uuid": "e15972969ac64d1ea01c0c228d969bcc",
          "l3NetworkUuid": "d2f77ca69b1448d3b8e063c3d551cf1b",
          "name": "ip range",
          "startIp": "192.168.0.10",
          "endIp": "192.168.0.100",
          "netmask": "255.255.255.0",
          "gateway": "192.168.0.1",
          "createDate": "Apr 24, 2017 7:11:08 PM",
          "lastOpDate": "Apr 24, 2017 7:11:08 PM"
        }
      ],
      "networkServices": [
        {
          "l3NetworkUuid": "d2f77ca69b1448d3b8e063c3d551cf1b",
          "networkServiceProviderUuid": "a493b6286d6e43f89e06062b7a4ad182",
          "networkServiceType": "DHCP"
        },
        {
          "l3NetworkUuid": "d2f77ca69b1448d3b8e063c3d551cf1b",
          "networkServiceProviderUuid": "a493b6286d6e43f89e06062b7a4ad182",
          "networkServiceType": "DNS"
        },
        {
          "l3NetworkUuid": "d2f77ca69b1448d3b8e063c3d551cf1b",

```

```

    "networkServiceProviderUuid": "a493b6286d6e43f89e06
062b7a4ad182",
    "networkServiceType": "SNAT"
  }
}
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String		0.6
zoneUuid	String	The zone UUID.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6
state	String		0.6
dnsDomain	String		0.6
system	Boolean		0.6
category	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
dns	List		0.6
ipRanges	List	See ipRanges .	0.6
networkServices	List	See networkServices .	0.6
hostRoute	List	See hostRoute .	0.6

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6

Name	Type	Description	Starting Version
prefixLen	String	The netmask length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nextHop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
GetVmAttachableL3NetworkAction action = new GetVmAttachableL3NetworkAction();
action.vmInstanceUuid = "eb2f2966162a47768578a0fb4016d75f";
action.sessionId = "9fe9dda1b076485baa9f3d49dacb0b3d";
```



```
GetVmAttachableL3NetworkAction.Result res = action.call();
```

Python SDK

```
GetVmAttachableL3NetworkAction action = GetVmAttachableL3NetworkAction
()
action.vmInstanceUuid = "2c39b050a8984491922aeadbddd8ed48"
action.sessionId = "006575fef83c43c68f7bfb9c05f6b05c"
GetVmAttachableL3NetworkAction.Result res = action.call()
```

5.1.1.35 GetVirtualizerInfo

API Request

URLs

```
GET zstack/v1/vm-instances/virtualizer-info
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/virtualizer-info?
uids=b5432fcc423434e7a5f5876f1fe1e910&uuids=67e54311bbef3b43b9c523b349b08ca9&u
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uids	List	query	The host or the VM instance UUID		4.6.21
systemTags	List	query	Optional. The system tags.		4.6.21
userTags	List	query	Optional. The user tags.		4.6.21

API Response

Sample Response

```
{
  "inventories": [
```

```

{
  "uuid": "3ce46fb7eb2e369c88d5fd671d1c1694",
  "resourceType": "HostV0",
  "infoList": [
    {
      "hypervisor": "qemu-kvm",
      "currentVersion": "4.2.0-632.g6a6222b.el7",
      "expectVersion": "4.2.0-632.g6a6222b.el7",
      "matchState": "Matched"
    }
  ]
},
{
  "uuid": "5c10fab3f649380e9dce16bb22ffd572",
  "resourceType": "VmInstanceV0",
  "infoList": [
    {
      "hypervisor": "qemu-kvm",
      "currentVersion": "4.2.0-632.g6a6222b.el7",
      "expectVersion": "4.2.0-632.g6a6222b.el7",
      "matchState": "Matched"
    }
  ]
},
{
  "uuid": "78a8b78906233d57bce710e89b24ebc0",
  "resourceType": "VmInstanceV0",
  "infoList": [
    {
      "hypervisor": "qemu-kvm",
      "currentVersion": "4.2.0-632.g6a6222b.el7",
      "expectVersion": "4.2.0-632.g6a6222b.el7",
      "matchState": "Matched"
    }
  ]
}
]
}

```

Name	Type	Description	Starting Version
success	boolean	Whether the action is successful or not.	4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.21
inventories	List	See inventories .	4.6.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.21
description	String	The brief description of the error.	4.6.21
details	String	The details about the error.	4.6.21
elaboration	String	The reserved field. Default value: null.	4.6.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.21

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.21
resourceType	String	The resource type.	4.6.21
error	List	Query errors. The value may be null.	4.6.21
infoList	List	See infoList .	4.6.21

#infoList

Name	Type	Description	Starting Version
hypervisor	String	The hypervisor. Generally, the value is qemu-kvm	4.6.21

Name	Type	Description	Satrting Version
currentVersion	String	The version of the hypervisor used by the VM instance or the host.	4.6.21
expectVersion	String	The expected hypervisor version. We recommend that you keep the hypervisor version of a VM instance consistent with that of the host it is running on and the hypervisor version of a host consistent with the MN recommended version.	4.6.21
matchState	String	Whether the current hypervisor version is consistent with the expected version. If the system cannot get the current version or the expected version, the value is Unknown here.	4.6.21

SDK Sample

Java SDK

```
GetVirtualizerInfoAction action = new GetVirtualizerInfoAction();
action.uuids = asList("b5432fcc423434e7a5f5876f1fe1e910", "67e54311bbe3b43b9c523b349b08ca9", "d64aeea721f7331aa15e7fb95eee7390");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVirtualizerInfoAction.Result res = action.call();
```

Python SDK

```
GetVirtualizerInfoAction action = GetVirtualizerInfoAction()
action.uuids = [b5432fcc423434e7a5f5876f1fe1e910, 67e54311bbe3b43b9c523b349b08ca9, d64aeea721f7331aa15e7fb95eee7390]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetVirtualizerInfoAction.Result res = action.call()
```

5.1.1.36 AttachL3NetworkToVm

API Request

URLs

```
POST zstack/v1/vm-instances/{vmInstanceUuid}/l3-networks/
{l3NetworkUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "attachL3NetworkToVm": {
    "driverType": "E1000"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' \
http://localhost:8080/zstack/v1/vm-instances/
f526e22f739838f4bcdffd20f0ba8a73/l3-
networks/00fab8159d1d3534802c588c2bd9a28b
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		0.6
l3NetworkUuid	String	url	The L3 network UUID.		0.6

Name	Type	Location	Description	Valid Value	Starting Version
staticIp	String	body (contained in the params structure)	Optional. Specifies the IP address to be allocated to the VM instance.		0.6
driverType	String	body	The NIC driver type.	The NIC driver type. Valid values: - E1000E - E1000 - Vmxnet3 - Sriov	4.0.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you attach an L3 network to a VM instance in ZStack Cloud, you can enable SR-IOV by adding the **enableSRIOV** option to **SystemTags**.
 - Format of the **enableSRIOV** option: `enableSRIOV:: {L3_NETWORK_UUID}`
 - Example: `enableSRIOV::9e19dafe81c64fed8e34f72e27582339`
- When you create a VM instance in ZStack Cloud, you can specify an IP address for the L3 network by adding the **staticIp** option to **SystemTags**. If the network address type is double stack (IPv4+IPv6), you can add two **staticIp** options, which are IPv4 and IPv6, respectively.
 - Format of the **staticIp** option: `staticIp::L3 network UUID::specified IP`
 - Example: `staticIp::81a21a81cde84c1084c191354053a3b5::172.20.196.0`

API Response

Sample Response

```
{
  "inventory": {
```

```

"uuid": "e300c6dbbbaa1326ebca205a7b2a0e7ea",
"name": "Test-VM",
"description": "web server VM",
"zoneUuid": "c9b73cde21d23866802e8a5178f29f0d",
"clusterUuid": "24a72428e400344b88f8c2faa4c292bd",
"imageUuid": "5484ed82cdfc366c9657c695577bee37",
"hostUuid": "5eb00f0897603309904b418c821b1acb",
"lastHostUuid": "b2cfad47a7923346a735008c32ef0d0b",
"instanceOfferingUuid": "bbea469feb78345591cc9ac6c0ce0c5c",
"rootVolumeUuid": "fc8a81afd11136ac8a48cf458ac2945b",
"platform": "Linux",
"defaultL3NetworkUuid": "aa3e9117d9793eff81a614b0e18bade7",
"type": "UserVm",
"hypervisorType": "KVM",
"memorySize": 8.589934592E9,
"cpuNum": 1.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM",
"state": "Running",
"vmNics": [
  {
    "uuid": "458704a1654637209667e69847ee3a97",
    "vmInstanceUuid": "e300c6dbbbaa1326ebca205a7b2a0e7ea",
    "usedIpUuid": "b6edb8e1ccc533b98cb9cc1c14baf38b",
    "l3NetworkUuid": "aa3e9117d9793eff81a614b0e18bade7",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"allVolumes": [
  {
    "uuid": "fc8a81afd11136ac8a48cf458ac2945b",
    "name": "Root-Volume-For-VM-e300c6dbbbaa1326ebca205a7b2a0e7ea",
    "primaryStorageUuid": "91dc7f8732243262933100a509ab808a",
    "vmInstanceUuid": "e300c6dbbbaa1326ebca205a7b2a0e7ea",
    "diskOfferingUuid": "26483e8eca413d809f4f8c6afba75ae2",
    "rootImageUuid": "5484ed82cdfc366c9657c695577bee37",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-fc8a81afd11136ac8a48cf458ac2945b/fc8a81afd1
1136ac8a48cf458ac2945b.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The instance offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
AttachL3NetworkToVmAction action = new AttachL3NetworkToVmAction();
action.vmInstanceUuid = "b8755237b07a4c85923ccc96ccc0d897";
action.l3NetworkUuid = "984008169505409dbbf2bbfee9c45ffe";
action.sessionId = "46b2a5b9b4fb44268f5eb186f69c1937";
AttachL3NetworkToVmAction.Result res = action.call();
```

Python SDK

```
AttachL3NetworkToVmAction action = AttachL3NetworkToVmAction()
```

```

action.vmInstanceUuid = "aed2911fd48a4872858abe8f0bdadecf"
action.l3NetworkUuid = "0664fc2951974e338ec6266c8afcc07c"
action.sessionId = "0443d11232ae465db92eef1dcbc2a5d8"
AttachL3NetworkToVmAction.Result res = action.call()

```

5.1.1.37 DetachL3NetworkFromVm

API Request

URLs

```
DELETE zstack/v1/vm-instances/nics/{vmNicUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 54d954775dfb45bc8853485f81196cc1" \
-X DELETE http://localhost:8080/zstack/v1/vm-instances/\
nics/06147cc0c8214c1cbd9812e01c1cdcce?

```

Name	Type	Location	Description	Optional Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID. The network where the NIC is located will be detached from the VM instance.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```

{
  "inventory": {
    "uuid": "536d4140e0ee332bbca18b95fa02eab6",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "30930c14b63634b4a879f7a974b3eb25",
    "clusterUuid": "26e01d57f1f731e09d8c0733afd31b2d",
    "imageUuid": "4f2ef2b98a643a11bde6b8b6ac0fad7c",
    "hostUuid": "a8143ab421663d22809e7c9bfbad77d9",

```

```

"lastHostUuid": "60d6576190e93cd89dd070cac6b600ea",
"instanceOfferingUuid": "51d49dbc54d4332b89f1077177d9d9dc",
"rootVolumeUuid": "d39f1a3944473cd8b97932cbd72fb9dd",
"platform": "Linux",
"defaultL3NetworkUuid": "3becf336fc1b31a397452ab8adee8766",
"type": "UserVm",
"hypervisorType": "KVM",
"memorySize": 8.589934592E9,
"cpuNum": 1.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM",
"state": "Running",
"vmNics": [
  {
    "uuid": "6275ccc0b6ff3ce2af43841dea667729",
    "vmInstanceUuid": "536d4140e0ee332bbca18b95fa02eab6",
    "usedIpUuid": "4c213f2ea325325496282e9e9493ddc7",
    "l3NetworkUuid": "3becf336fc1b31a397452ab8adee8766",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"allVolumes": [
  {
    "uuid": "d39f1a3944473cd8b97932cbd72fb9dd",
    "name": "Root-Volume-For-VM-536d4140e0ee332bbca18b95fa02eab6",
    "primaryStorageUuid": "be341d00a19539698a454cc8ec423c35",
    "vmInstanceUuid": "536d4140e0ee332bbca18b95fa02eab6",
    "diskOfferingUuid": "7844548a5f2e33cb8a8779f2bd5a94a3",
    "rootImageUuid": "4f2ef2b98a643a11bde6b8b6ac0fad7c",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-d39f1a3944473cd8b97932cbd72fb9dd/d39f1a3944
473cd8b97932cbd72fb9dd.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6

Name	Type	Description	Starting Version
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6

Name	Type	Description	Starting Version
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
DetachL3NetworkFromVmAction action = new DetachL3NetworkFromVmAction
();
action.vmNicUuid = "6d31c3fb6c0e4299a9b421eda472f95f";
action.sessionId = "a093606a38254c98806e194e9eb84d72";
DetachL3NetworkFromVmAction.Result res = action.call();
```

Python SDK

```
DetachL3NetworkFromVmAction action = DetachL3NetworkFromVmAction()
action.vmNicUuid = "820807ea569441c98db65cf3b436741c"
action.sessionId = "62cbb5f992b6489bbb73e93b9fc33edc"
```

```
DetachL3NetworkFromVmAction.Result res = action.call()
```

5.1.1.38 CreateVmNic

API Request

URLs

```
POST zstack/v1/nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "l3NetworkUuid": "cbb5d7cd7f51332cb18c124ea430863f"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"l3NetworkUuid":"cbb5d7cd7f51332cb18c124ea430863f"}}' http://
localhost:8080/zstack/v1/nics
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
l3NetworkUuid	String	body(contained in the params structure)	The L3 network UUID.		4.0.0
ip	String	body(contained in the params structure)	Optional.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
resourceUuid	String	body(contained in the params structure)	Optional.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "158c432596ab3418bbdd04583541d42d",
    "usedIpUuid": "acfdb23e1b0e39e48b10ee02d10ed74f",
    "l3NetworkUuid": "a1791966d2fd375bbb469dd0308d3be6",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	VmInstanceInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	4.0.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The IP version.	4.0.0
deviceId	Integer	The device ID.	4.0.0

Name	Type	Description	Starting Version
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the IP address.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask of the IP address.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was used.	4.0.0
lastOpDate	Timestamp	The time when the IP address was last modified.	4.0.0

SDK Sample

Java SDK

```
CreateVmNicAction action = new CreateVmNicAction();
action.l3NetworkUuid = "cbb5d7cd7f51332cb18c124ea430863f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreateVmNicAction.Result res = action.call();
```

Python SDK

```
CreateVmNicAction action = CreateVmNicAction()
action.l3NetworkUuid = "cbb5d7cd7f51332cb18c124ea430863f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmNicAction.Result res = action.call()
```

5.1.1.39 ChangeVmNicState

API Request

URLs

```
PUT zstack/v1/vm-instances/nics/{vmNicUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVmNicState": {
    "state": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeVmNicState":{"state":"disable"}}'
http://localhost:8080/zstack/v1/vm-instances/
nics/17d47a3b35813bb5a90f9643200a0f40/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID.		4.6.0

Name	Type	Location	Description	Valid Value	Starting Version
state	String	body	The VM NIC state.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "11d9330dd53b3140a933afff53484a4c",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "9959e99dec6032a1b6ddc7557f33db64",
    "clusterUuid": "d1675e2a3a07326989def39ea008fc1d",
    "imageUuid": "2392ef4f86e63aaaa2b5614f6795e262",
    "hostUuid": "b1e0e26f93503ff1a36d1e52d722b9ab",
    "lastHostUuid": "799326ef34543e4d988893b236c846ce",
    "instanceOfferingUuid": "7acf02facef6324b8f5b945d920afd75",
    "rootVolumeUuid": "561bc94863f43272afb18628ff29e137",
    "platform": "Linux",
    "defaultL3NetworkUuid": "f011105734bb39189bb8105fdc081d58",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8589934592,
    "cpuNum": 1,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "836ece7a894337b782404822f6c200bd",
        "vmInstanceUuid": "11d9330dd53b3140a933afff53484a4c",
        "usedIpUuid": "52876b0aca4936719b11959c2e53d9dc",
        "l3NetworkUuid": "f011105734bb39189bb8105fdc081d58",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0,
        "state": "disable",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "561bc94863f43272afb18628ff29e137",
```

```

    "name": "Root-Volume-For-VM-11d9330dd53b3140a933afff53484a4c",
    "primaryStorageUuid": "75cfe252d83c3b498f8a6b00d7f03eb6",
    "vmInstanceUuid": "11d9330dd53b3140a933afff53484a4c",
    "diskOfferingUuid": "798091e2b84f30da8652329933d3bada",
    "rootImageUuid": "2392ef4f86e63aaaa2b5614f6795e262",
    "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-561bc94863f43272afb18628ff29e137/561bc94863
f43272afb18628ff29e137.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 107374182400,
    "actualSize": 21474836480,
    "deviceId": 0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}

```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.0
inventory	VmInstanceInventory	See inventory .	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0
description	String	The detailed description of the resource.	4.6.0
zoneUuid	String	The zone UUID.	4.6.0
clusterUuid	String	The cluster UUID.	4.6.0
imageUuid	String	The image UUID.	4.6.0
hostUuid	String	The host UUID.	4.6.0
lastHostUuid	String		4.6.0
instanceOfferingUuid	String	The instance offering UUID.	4.6.0
rootVolumeUuid	String	The root volume UUID.	4.6.0
platform	String		4.6.0
architecture	String		4.6.0
defaultL3NetworkUuid	String		4.6.0
type	String		4.6.0
hypervisorType	String		4.6.0
memorySize	Long		4.6.0
cpuNum	Integer		4.6.0
cpuSpeed	Long		4.6.0

Name	Type	Description	Starting Version
allocatorStrategy	String		4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0
state	String		4.6.0
guestOsType	String		4.6.0
vmNics	List	See vmNics	4.6.0
allVolumes	List	See allVolumes	4.6.0
vmCdRoms	List	See vmCdRoms	4.6.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
vmInstanceUuid	String	The VM instance UUID.	4.6.0
l3NetworkUuid	String	The L3 network UUID.	4.6.0
ip	String		4.6.0
mac	String		4.6.0
hypervisorType	String		4.6.0
netmask	String		4.6.0
gateway	String		4.6.0
metaData	String		4.6.0
ipVersion	Integer		4.6.0
driverType	String		4.6.0
internalName	String		4.6.0
deviceId	Integer		4.6.0
type	String		4.6.0
state	String	The NIC state.	4.6.0
createDate	Timestamp	The creation date.	4.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.6.0
usedIps	List	See usedIps	4.6.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
ipRangeUuid	String	The IP range UUID.	4.6.0
l3NetworkUuid	String	The L3 network UUID.	4.6.0
ipVersion	Integer		4.6.0
ip	String		4.6.0
netmask	String		4.6.0
gateway	String		4.6.0
usedFor	String		4.6.0
ipInLong	long		4.6.0
vmNicUuid	String	The VM NIC UUID.	4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0
description	String	The detailed description of the resource.	4.6.0
primaryStorageUuid	String	The primary storage UUID.	4.6.0
vmInstanceUuid	String	The VM instance UUID.	4.6.0

Name	Type	Description	Starting Version
diskOfferingUuid	String	The disk offering UUID	4.6.0
rootImageUuid	String		4.6.0
installPath	String		4.6.0
type	String		4.6.0
format	String		4.6.0
size	Long		4.6.0
actualSize	Long		4.6.0
deviceId	Integer		4.6.0
state	String		4.6.0
status	String		4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0
isShareable	Boolean		4.6.0
volumeQos	String		4.6.0
lastDetachDate	Timestamp		4.6.0
lastVmInstanceUuid	String		4.6.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
vmInstanceUuid	String	The VM instance UUID.	4.6.0
deviceId	Integer		4.6.0
isoUuid	String		4.6.0
isoInstallPath	String		4.6.0
name	String	The resource name.	4.6.0
description	String	The detailed description of the resource.	4.6.0
createDate	Timestamp	The creation date.	4.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.6.0

SDK Sample

Java SDK

```
ChangeVmNicStateAction action = new ChangeVmNicStateAction();
action.vmNicUuid = "17d47a3b35813bb5a90f9643200a0f40";
action.state = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeVmNicStateAction.Result res = action.call();
```

Python SDK

```
ChangeVmNicStateAction action = ChangeVmNicStateAction()
action.vmNicUuid = "17d47a3b35813bb5a90f9643200a0f40"
action.state = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeVmNicStateAction.Result res = action.call()
```

5.1.1.40 AttachVmNicToVm

API Request

URLs

```
POST zstack/v1/vm-instances/{vmInstanceUuid}/nics/{vmNicUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/
v1/vm-instances/4fea63520ff63f5f9856acd619add4f5/
nices/8b22e01e4bf43b1dab1530d2b362bbc5
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmNicUuid	String	url	The NIC UUID.		4.0.0
vmInstanceUuid	List	url	The VM UUID.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "afb6d67886d773a45af9a20071bcb09bb",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "4b9ddab3f5f738f1a0161f5cf5f33f5c",
    "clusterUuid": "d7061d85666a380cb3dda4cc7f9f16ee",
    "imageUuid": "179a3412da4a32faa927eae552348907",
    "hostUuid": "6ee062370eee3df58623fa99be0b2ce0",
    "lastHostUuid": "09fdbebbaea73df79b744ad0d4bd7088",
    "instanceOfferingUuid": "6dc0db981e68348e89ac79ed18fa4b24",
    "rootVolumeUuid": "a876397202ac3d1daf9f4ea67e75e13d",
    "platform": "Linux",
    "defaultL3NetworkUuid": "3baaf68d632f3e9aa12be139d58d968e",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "b9415d324b50301e923a990bf65352d0",
        "vmInstanceUuid": "afb6d67886d773a45af9a20071bcb09bb",
        "usedIpUuid": "76a49549cb183d35865276187afb482b",
        "l3NetworkUuid": "3baaf68d632f3e9aa12be139d58d968e",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
```

```

    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  ],
  "allVolumes": [
    {
      "uuid": "a876397202ac3d1daf9f4ea67e75e13d",
      "name": "Root-Volume-For-VM-afbd67886d773a45af9a20071bcb09bb",
      "primaryStorageUuid": "336625bac9e0326b9a9abc7801ef2c86",
      "vmInstanceUuid": "afbd67886d773a45af9a20071bcb09bb",
      "diskOfferingUuid": "475f8e09aae2389ea6945b46601aa683",
      "rootImageUuid": "179a3412da4a32faa927eae552348907",
      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-a876397202ac3d1daf9f4ea67e75e13d/a876397202
ac3d1daf9f4ea67e75e13d.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventory	VmInstanceInventory	See inventory	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0

Name	Type	Description	Starting Version
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The VM UUID.	4.0.0
name	String	The VM name.	4.0.0
description	String	The detailed description of the VM.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
hostUuid	String	The host UUID.	4.0.0
lastHostUuid	String	The UUID of the host on which the VM instance was running last time.	4.0.0
instanceOfferingUuid	String	The instance offering UUID.	4.0.0
rootVolumeUuid	String	The root volume UUID.	4.0.0
platform	String	The platform on which the VM instance is running.	4.0.0

Name	Type	Description	Starting Version
defaultL3NetworkUuid	String	The UUID of the default L3 network.	4.0.0
type	String	The VM instance type.	4.0.0
hypervisorType	String	The hypervisor type of the VM instance.	4.0.0
memorySize	Long	The memory size.	4.0.0
cpuNum	Integer	The number of CPU cores of the VM instance.	4.0.0
cpuSpeed	Long	The CPU speed.	4.0.0
allocatorStrategy	String	The allocator strategy.	4.0.0
createDate	Timestamp	The time when the VM instance was created.	4.0.0
lastOpDate	Timestamp	The time when the VM instance was last modified.	4.0.0
state	String	The state of the VM instance.	4.0.0
vmNics	List	See vmNics .	4.0.0
allVolumes	List	See allVolumes .	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC.	4.0.0
vmInstanceUuid	String	The VM UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0

Name	Type	Description	Starting Version
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The version of the IP address.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was added.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The IP address UUID.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was used.	4.0.0
lastOpDate	Timestamp	The time when the IP address was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The bare metal instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume.	4.0.0
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0

Name	Type	Description	Starting Version
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

SDK Sample

Java SDK

```
AttachVmNicToVmAction action = new AttachVmNicToVmAction();
action.vmNicUuid = "8b22e01e4bf43b1dab1530d2b362bbc5";
action.vmInstanceUuid = "4fea63520ff63f5f9856acd619add4f5";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachVmNicToVmAction.Result res = action.call();
```

Python SDK

```
AttachVmNicToVmAction action = AttachVmNicToVmAction()
action.vmNicUuid = "8b22e01e4bf43b1dab1530d2b362bbc5"
action.vmInstanceUuid = "4fea63520ff63f5f9856acd619add4f5"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachVmNicToVmAction.Result res = action.call()
```

5.1.1.41 DeleteVmNic

API Request

URLs

```
DELETE zstack/v1/nics/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/nics/
e99db1aeb43c3d82ae1ba427308200
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The VM NIC UUID.		4.0.0
deleteMode	String	body	Optional.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVmNicAction action = new DeleteVmNicAction();
action.uuid = "e99db1aeb43c3d82ae1ba427308200";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVmNicAction.Result res = action.call();
```

Python SDK

```
DeleteVmNicAction action = DeleteVmNicAction()
action.uuid = "e99db1aeb43c3d82ae1ba427308200"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteVmNicAction.Result res = action.call()
```

5.1.1.42 QueryVmNic

API Request

URLs

```
GET zstack/v1/vm-instances/nics
```

```
GET zstack/v1/vm-instances/nics/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth: 185cf639b8b64150a2aa22ec84e2517b" \
-X GET http://localhost:8080/zstack/v1/vm-instances/nics?
q=ip=172.20.100.100
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth: 2e9d7313cbb6495ebb3ee5d0d5d20fde" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
nics/7363f51baaab41538d5fe402a69d2529
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVmNic**, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryVmNicAction action = new QueryVmNicAction();
action.conditions = asList("ip=172.20.100.100");
action.sessionId = "ca4e59e18f014c21afcdde859b2fba3a";
QueryVmNicAction.Result res = action.call();
```

Python SDK

```
QueryVmNicAction action = QueryVmNicAction()
action.conditions = ["ip=172.20.100.100"]
action.sessionId = "8549e75dbbe548348ca2848692fb7fd8"
```

```
QueryVmNicAction.Result res = action.call()
```

5.1.1.43 GetVmNicAttachedNetworkService

API Request

URLs

```
GET zstack/v1/vm-instances/nics/{vmNicUuid}/attached-networkservices
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
nics/8c193a29a4a43fccab83fea5a7281856/attached-networkservices
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID.		4.1.0
systemTags	List	query	Optional. The system tags.		4.1.0
userTags	List	query	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "networkServices": [
    "Eip"
  ]
}
```

Name	Type	Description	Starting Version
networkServices	List		4.1.0
error	ErrorCode	The error code. If not null, the operation	4.1.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

SDK Sample

Java SDK

```
GetVmNicAttachedNetworkServiceAction action = new GetVmNicAttachedNetworkServiceAction();
action.vmNicUuid = "8c193a29a4a43fccab83fea5a7281856";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVmNicAttachedNetworkServiceAction.Result res = action.call();
```

Python SDK

```
GetVmNicAttachedNetworkServiceAction action = GetVmNicAttachedNetworkServiceAction()
action.vmNicUuid = "8c193a29a4a43fccab83fea5a7281856"
```



```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVmNicAttachedNetworkServiceAction.Result res = action.call()
```

5.1.1.44 ChangeVmNicNetwork

API Request

URLs

```
POST zstack/v1/vm-instances/nics/{vmNicUuid}/l3-networks/
{l3NetworkUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/vm-
instances/nics/1183a0462aa83243a659ff91326888fb/l3-networks/
e46ab07103763f0dbd3e99af2e3be4b0
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID.		4.1.0
destL3NetworkUuid	String	body (contained in the params structure)			4.1.0

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "9d4cdab9192b3de3b2495b1e326910c7",
    "vmInstanceUuid": "0ae9a1992fb436a58e820bdc4dd17c4",
    "usedIpUuid": "c0c5860c05ce3e70b14b4f501fedff71",
    "l3NetworkUuid": "9390346b3a8a3c829b05dbe30569390a",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.1.0
inventory	VmNicInventory	See inventory .	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0

Name	Type	Description	Starting Version
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
vmInstanceUuid	String	The VM UUID.	4.1.0
l3NetworkUuid	String	The L3 network UUID.	4.1.0
ip	String	The IP address.	4.1.0
mac	String	The MAC address.	4.1.0
hypervisorType	String	The hypervisor type.	4.1.0
netmask	String	The netmask.	4.1.0
gateway	String	The gateway.	4.1.0
metaData	String		4.1.0
ipVersion	Integer	The IP version.	4.1.0
deviceId	Integer	The device ID.	4.1.0
type	String	The NIC type.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
usedIps	List	See usedIps	4.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
ipRangeUuid	String	The IP range UUID.	4.1.0
l3NetworkUuid	String	The L3 network UUID.	4.1.0
ipVersion	Integer	The IP version.	4.1.0
ip	String	The IP address.	4.1.0
netmask	String	The netmask.	4.1.0
gateway	String	The gateway.	4.1.0
usedFor	String		4.1.0
ipInLong	long		4.1.0
vmNicUuid	String	The VM NIC UUID.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0

SDK Sample

Java SDK

```
ChangeVmNicNetworkAction action = new ChangeVmNicNetworkAction();
action.vmNicUuid = "1183a0462aa83243a659ff91326888fb";
action.destL3NetworkUuid = "e46ab07103763f0dbd3e99af2e3be4b0";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeVmNicNetworkAction.Result res = action.call();
```

Python SDK

```
ChangeVmNicNetworkAction action = ChangeVmNicNetworkAction()
action.vmNicUuid = "1183a0462aa83243a659ff91326888fb"
action.destL3NetworkUuid = "e46ab07103763f0dbd3e99af2e3be4b0"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeVmNicNetworkAction.Result res = action.call()
```

5.1.1.45 GetCandidateL3NetworksForChangeVmNicNetwork

API Request

URLs

```
GET zstack/v1/vm-instances/nics/{vmNicUuid}/l3-networks-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
nics/3382601183c9319384d5aa17ec956a3f/l3-networks-candidates
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID.		4.1.0
systemTags	List	query	Optional. The system tags.		4.1.0
userTags	List	query	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "f8fc36eaff6f3253a134bab93823baf1",
      "name": "private L3",
      "type": "L3BasicNetwork",
      "zoneUuid": "9ef7d386414c3101adeecd45ec9a2d51",
      "l2NetworkUuid": "ad3adf2da22f36c2946d90fae7f99b19",
      "state": "Enabled",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "ipRanges": [
        {
          "uuid": "16f163ee55f93d4f8dca9fefcac41ecc",
```

```

        "l3NetworkUuid": "f8fc36eaff6f3253a134bab93823baf1",
        "name": "ip range",
        "startIp": "192.168.0.10",
        "endIp": "192.168.0.100",
        "netmask": "255.255.255.0",
        "gateway": "192.168.0.1",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    ],
    "networkServices": [
        {
            "l3NetworkUuid": "f8fc36eaff6f3253a134bab93823baf1",
            "networkServiceProviderUuid": "f714dba2f49a3d6788aa
f8b5ab3dc2",
            "networkServiceType": "DHCP"
        },
        {
            "l3NetworkUuid": "f8fc36eaff6f3253a134bab93823baf1",
            "networkServiceProviderUuid": "f714dba2f49a3d6788aa
f8b5ab3dc2",
            "networkServiceType": "DNS"
        },
        {
            "l3NetworkUuid": "f8fc36eaff6f3253a134bab93823baf1",
            "networkServiceProviderUuid": "f714dba2f49a3d6788aa
f8b5ab3dc2",
            "networkServiceType": "SNAT"
        }
    ]
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.1.0
inventory	List	See inventory	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.1.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
name	String	The resource name.	4.1.0
description	String	Optional. The detailed description of the resource.	4.1.0
type	String		4.1.0
zoneUuid	String	The zone UUID.	4.1.0
l2NetworkUuid	String	The L2 network UUID.	4.1.0
state	String		4.1.0
dnsDomain	String		4.1.0
system	Boolean		4.1.0
category	String		4.1.0
ipVersion	Integer	The IP version.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
dns	List		4.1.0

Name	Type	Description	Starting Version
ipRanges	List	See ipRanges .	4.1.0
networkServices	List	See networkServices .	4.1.0
hostRoute	List	See ipRangesx .	4.1.0

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
l3NetworkUuid	String	The L3 network UUID.	4.1.0
name	String	The resource name.	4.1.0
description	String	Optional. The detailed description of the resource.	4.1.0
startIp	String	The start IP address.	4.1.0
endIp	String	The end IP address.	4.1.0
netmask	String	The netmask.	4.1.0
prefixLen	String	The netmask length.	4.1.0
gateway	String	The gateway.	4.1.0
networkCidr	String	The network CIDR.	4.1.0
ipVersion	Integer	The IP version.	4.1.0
addressMode	String	The IPv6 address distribution mode.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
ipRangeType	IpRangeType	See ipRangeType .	4.1.0

#ipRangeType

Name	Type	Description	Starting Version
Normal	IpRangeType	Normal IP address	4.1.0
AddressPool	IpRangeType	Address pool	4.1.0

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	4.1.0
networkServiceProviderUuid	String	The network service provider UUID.	4.1.0
networkServiceType	String		4.1.0

#hostRoute

Name	Type	Description	Starting Version
id	Long		4.1.0
l3NetworkUuid	String	The L3 network UUID.	4.1.0
prefix	String		4.1.0
nextHop	String		4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0

SDK Sample

Java SDK

```
GetCandidateL3NetworksForChangeVmNicNetworkAction action = new
GetCandidateL3NetworksForChangeVmNicNetworkAction();
action.vmNicUuid = "3382601183c9319384d5aa17ec956a3f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateL3NetworksForChangeVmNicNetworkAction.Result res = action.
call();
```

Python SDK

```
GetCandidateL3NetworksForChangeVmNicNetworkAction action = GetCandida
tel3NetworksForChangeVmNicNetworkAction()
action.vmNicUuid = "3382601183c9319384d5aa17ec956a3f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetCandidateL3NetworksForChangeVmNicNetworkAction.Result res = action.call()
```

5.1.1.46 SetNicQos

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setNicQos": {
    "outboundBandwidth": 819200.0,
    "inboundBandwidth": 819200.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setNicQos":
{"outboundBandwidth":819200.0,"inboundBandwidth":819200.0}}' \
http://localhost:8080/zstack/v1/vm-
instances/1d86edf8c2e73980b83005e946449c57/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM NIC UUID.		0.6
outboundBandwidth	Long	body (contained in	Optional. The outbound bandwidth.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
inboundBandwidth	Long	body (contained in the params structure)	Optional. The inbound bandwidth.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetNicQoSAction action = new SetNicQoSAction();
action.uuid = "00cc6445774649b488f6a03b023d6701";
action.outboundBandwidth = 819200.0;
action.inboundBandwidth = 819200.0;
action.sessionId = "d5a1b6a5424e4b1c8cc23f77e8ba6d58";
SetNicQoSAction.Result res = action.call();
```

Python SDK

```
SetNicQoSAction action = SetNicQoSAction()
action.uuid = "71548ce2c00240a3a5b065080d47f399"
action.outboundBandwidth = 819200.0
action.inboundBandwidth = 819200.0
action.sessionId = "a86b3caf907045b9a82e3a0cb0597330"
```

```
SetNicQoSAction.Result res = action.call()
```

5.1.1.47 GetNicQos

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/nic-qos
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 2715e1f9803745c79e73079012aea97e" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
e3594dc6c70e4d6f8488c4d7c69807e6/nic-qos
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM NIC UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "outboundBandwidth": 100000.0,
  "inboundBandwidth": 200000.0,
  "outboundBandwidthUpthreshold": 300000.0,
  "inboundBandwidthUpthreshold": 300000.0
}
```

Name	Type	Description	Starting Version
outboundBandwidth	long		0.6
inboundBandwidth	long		0.6

Name	Type	Description	Starting Version
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetNicQoSAction action = new GetNicQoSAction();
action.uuid = "9d6e28b144a34b01807a5a9d83ba005c";
action.sessionId = "883ff8e0d0cd43ab91005df23ad062ee";
```

```
GetNicQoSAction.Result res = action.call();
```

Python SDK

```
GetNicQoSAction action = GetNicQoSAction()
action.uuid = "c8d27e7c11f3462cb623068b0e64e39e"
action.sessionId = "39f7aad9e84841ffbbe69d2cd1f37f57"
GetNicQoSAction.Result res = action.call()
```

5.1.1.48 DeleteNicQos

API Request

URLs

```
DELETE zstack/v1/vm-instances/{uuid}/nic-qos?direction={direction}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "direction": "example"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth 2c879e6be1c64b079aec599845576657" \
-X DELETE http://localhost:8080/zstack/v1/vm-
instances/9f9a2eb79c9b4fe5881b109033020899/nic-QoS?direction=in
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM NIC UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
direction	String	url	The direction , including inbound and outbound.	- in - out	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteNicQoSAction action = new DeleteNicQoSAction();
action.uuid = "27b5b55e69284a8ea07871661de562a4";
action.direction = "example";
action.sessionId = "d83ac78201fc4ad38b17261bba4dc17b";
DeleteNicQoSAction.Result res = action.call();
```

Python SDK

```
DeleteNicQoSAction action = DeleteNicQoSAction()
action.uuid = "efb14319aaf14069a1066f2b07a0e328"
action.direction = "example"
action.sessionId = "a0a6598343404cc38356abfc58877bd8"
```

```
DeleteNicQoSAction.Result res = action.call()
```

5.1.1.49 GetInterdependentL3NetworksImages

API Request

URLs

```
GET zstack/v1/images-l3networks/dependencies
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "zoneUuid": "55852cdc71ef4774a9dc1eaf85a29c42",
    "imageUuid": "012be26a00ac4e9583afb5ef9d8dc322"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth ecd5117a63cf444cb71bba734e7458c4" \
-X GET http://localhost:8080/zstack/v1/images-l3networks/dependencies?
\
zoneUuid=55466c2e90ae46d88df91c4f72c3e304&imageUuid=40b1783bc2614500bf0926499bdc9
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
zoneUuid	String	query	The zone UUID. This parameter is required to specify the dependency between the L3 network and image.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuids	List	query	Optional. The L3 network UUID list.		0.6
imageUuid	String	query	Optional. The image UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "e177bad0286f4ee38ac29f0ad0e772e6",
      "name": "private L3",
      "type": "L3BasicNetwork",
      "zoneUuid": "0f8c102ff69a43b0afa89c2833ed42bc",
      "l2NetworkUuid": "c110e7bdffce47578351477ec0728685",
      "state": "Enabled",
      "createDate": "May 11, 2017 1:22:45 PM",
      "lastOpDate": "May 11, 2017 1:22:45 PM",
      "ipRanges": [
        {
          "uuid": "703becbb056f426b8fe5997648fd7607",
          "l3NetworkUuid": "e177bad0286f4ee38ac29f0ad0e772e6",
          "name": "ip range",
          "startIp": "192.168.0.10",
          "endIp": "192.168.0.100",
          "netmask": "255.255.255.0",
          "gateway": "192.168.0.1",
          "createDate": "May 11, 2017 1:22:45 PM",
          "lastOpDate": "May 11, 2017 1:22:45 PM"
        }
      ],
      "networkServices": [
        {
          "l3NetworkUuid": "e177bad0286f4ee38ac29f0ad0e772e6",
          "networkServiceProviderUuid": "294f4a419cc44d51b1fc
bf7352fe6c0d",
          "networkServiceType": "DHCP"
        },
        {
          "l3NetworkUuid": "e177bad0286f4ee38ac29f0ad0e772e6",
          "networkServiceProviderUuid": "294f4a419cc44d51b1fc
bf7352fe6c0d",
          "networkServiceType": "DNS"
        }
      ]
    }
  ]
}
```

```

        "l3NetworkUuid": "e177bad0286f4ee38ac29f0ad0e772e6",
        "networkServiceProviderUuid": "294f4a419cc44d51b1fc
bf7352fe6c0d",
        "networkServiceType": "SNAT"
    }
  ]
}

```

Name	Type	Description	Starting Version
inventories	List	If the input parameter is l3NetworkUuids , a list of images that can work with these L3 networks is returned. If the input parameter is imageUuid , a list of L3 networks that can work with the image is returned.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null	0.6
opaque	LinkedHashMap	The reserved field. Default value: null	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetInterdependentL3NetworksImagesAction \
```

```
action = new GetInterdependentL3NetworksImagesAction();
action.zoneUuid = "e4f01bb336a04285a27c6107f6dfeb68";
action.imageUuid = "05ec09f400684e4ab552d74053fc002e";
action.sessionId = "833c8307f9c540058f1a3b0c9a369f89";
GetInterdependentL3NetworksImagesAction.Result res = action.call();
```

Python SDK

```
GetInterdependentL3NetworksImagesAction \
action = GetInterdependentL3NetworksImagesAction()
action.zoneUuid = "9dff772313f64618896ce53c9d8a3594"
action.imageUuid = "9e91392ee23f4427bc82e7a9734c4966"
action.sessionId = "7713d16ef34c4ebdbe94a1b2261dcbeb"
GetInterdependentL3NetworksImagesAction.Result res = action.call()
```

5.1.1.50 SetVmSshKey

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmSshKey": {
    "SshKey": "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCAaV5YUvz9nx54+
pvxI\
e5L5uQFHFQsvpwRdVRfM0bIgWgcliB9vl4hMCPHXfaKqJD79jBpwJWpUBPebKF7vgevWqF
JeU\
gR/LBHTf0nRrEjVsSzanaGGzfjbrwMHDZ5YJVhDTE376+0uXz1Wu5M1mwcarJpcan
mqNgyz8Yh\
Yjc50xKDusDVvtpLKxdC6WvhR0+7gaDJKkukip1Up8do0UeNUe2c0bJfMo0gi2lNrtK
orGp107\
Nv+mdTflboYizgQ0CFReiW/1ipPjX060MZZ3Tsx3ZwBib5ocDpLV9Cj0NvnDByg
Wb30wydVoUS\
p1hKIzlwPkfyWHjxCf9pvLcHGUXZ root@10-0-98-199"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmSshKey":{"SshKey":"ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQCAaV5YUvz9nx54+pvxIe5L5uQFHFQsvpwRdVRfM0bIgWgcliB9
LBHTfOnRrEjVsSzanaGGzfjbrwMHdZ5YJVhDTE376+0uXz1Wu5M1mwcarJpcanmqNgyz8YhYjc50xKDus
+mdTflboYizgQOCFReiW/1ipPjX060MZZ3Tsx3ZWbBib5ocDpLV9CjONvnDBygWb30wydVoUSp1hKizlWF
root@10-0-98-199"}}' \
http://localhost:8080/zstack/v1/vm-
instances/6489aaa605a633a385c84e08f743234b/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
SshKey	String	body (contained in the setVmSshKey structure)			0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a9ac797c56ef3f3cbf507ae40aec4f27",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "2e70982580653273908fb2d9119c6f39",
    "clusterUuid": "d528e795695c3160bdf263e14fa1457b",
    "imageUuid": "e4682534b58436e1b485b9551d0feae7",
    "hostUuid": "a6d8de59ab5837adaef38c9f80609011",
    "lastHostUuid": "0fd913e716e83b029d22cff8eccd9ca0",
    "instanceOfferingUuid": "5509f4e5355e36629d7e8467a27bd67f",
    "rootVolumeUuid": "f7e96fc9d7413cd2b5aaf6099b66a8e1",
    "platform": "Linux",
    "defaultL3NetworkUuid": "016e9ab79d383faa941b37f9b3e7f2da",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
```

```

"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM",
"state": "Stopped",
"vmNics": [
  {
    "uuid": "2c2dffad4d8c3f51a693ac77c0ce61ce",
    "vmInstanceUuid": "a9ac797c56ef3f3cbf507ae40aec4f27",
    "usedIpUuid": "9e59064f42813027940517780bb7c4d9",
    "l3NetworkUuid": "016e9ab79d383faa941b37f9b3e7f2da",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"allVolumes": [
  {
    "uuid": "f7e96fc9d7413cd2b5aaf6099b66a8e1",
    "name": "Root-Volume-For-VM-a9ac797c56ef3f3cbf507ae40aec4f27",
    "primaryStorageUuid": "0155f19398db3bfdafebfd3b5f2f70cf",
    "vmInstanceUuid": "a9ac797c56ef3f3cbf507ae40aec4f27",
    "diskOfferingUuid": "a6479afc6363359aa38a76235a2ff1d2",
    "rootImageUuid": "e4682534b58436e1b485b9551d0feae7",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-f7e96fc9d7413cd2b5aaf6099b66a8e1/f7e96fc9d7
413cd2b5aaf6099b66a8e1.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6

Name	Type	Description	Starting Version
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6

Name	Type	Description	Starting Version
diskOfferingUuid	String	The disk offering UUID	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
SetVmSshKeyAction action = new SetVmSshKeyAction();
action.uuid = "29950a96104b4bac9ae0cb2f1207a3ca";
action.SshKey = "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCAaV5YUvz9nx\
54+pvxIe5L5uQFHFQsvpwRdVRfM0bIgwGcliB9vL4hMCPHXfaKqJD79jBpwJWpUBPebK\
F7vgevWqFJeUgR/LBHTfOnRrEjVsSzanaGGzfjbrwMHdZ5YJVhDTE376+OuXz1Wu5M1m\
wcarJpcanmqNgyz8YhYjc50xKDusDVvtpLKxdC6WvhR0+7gaDJKkukip1Up8do0UeNue2\
c0bJfMo0gi2lNrtKorGp107Nv+mdTflboYizgQ0CFReiW/1ipPjX060MZZ3Tsx3ZwBib5\
ocDpLV9Cj0NvnDBygWb30wydVoUSp1hKIzLWPkfyWHjxCf9pvLcHGUXZ root@10-0-98-
199";
action.sessionId = "c461e0a37d104b3da532d027fdde304b";
SetVmSshKeyAction.Result res = action.call();
```

Python SDK

```
SetVmSshKeyAction action = SetVmSshKeyAction()
action.uuid = "b40f07653f314e668a0674d42b670f90"
action.SshKey = "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCAaV5YUvz9nx54+
p\
vxIe5L5uQFHFQsvpwRdVRfM0bIgwGcliB9vL4hMCPHXfaKqJD79jBpwJWpUBPebKF7vgev
Wq\
FJeUgR/LBHTfOnRrEjVsSzanaGGzfjbrwMHdZ5YJVhDTE376+OuXz1Wu5M1mwcarJpcan
mqN\
```

```

gyz8YhYjc50xKDusDVvtpLKxdC6WvhR0+7gaDJKkukip1Up8do0UeNUe2c0bJfM
o0gi2lNrt\
KorGp107Nv+mdTflboYizgQ0CFReiW/1ipPjX060MZZ3Tsx3ZwBib5ocDpLV9
Cj0NvnDBygWb\
30wydVoUSp1hKIzlwPkyfWHjxCf9pvLcHGUXZ root@10-0-98-199"
action.sessionId = "1011d275b52341c6826095a10aa78805"
SetVmSshKeyAction.Result res = action.call()

```

5.1.1.51 GetVmSshKey

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/ssh-keys
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 9f358fd3fb0c451aa999d9fd5f21d675" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/905b14166587498982db9aa14aee50c1/ssh-keys

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```

{
  "sshKey": "ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCTgdrSt2i/
4ayXoiR6qNd7dyk00cz205NVSUgw41G0ZW3PdXa9wWMF1AP\
Htj8L2tYm3lKgIDSy1aQtpIEenu6L03BeqfPwepf2L89aZ/W4UPRpce9/b04mSSJ6kv
bZ7hFv+4KLUJCB907UrcFu7J/QwrkHNVNX1NsVUpq\
ebp3Ny8bxj0Wbr9ecqPKTclzygARRGz71iDQaEhLrQqy/Q8vr+/G1/uyAYfTnifC
uuMTfh5DEsuKD1AEHMBVZEbJ4zupR4gywXnGRxHmEwE4\

```

```
64scACxeFWvx2fLIXkTK8f3W0KBLCJ8VtTd8KxvKQBu2jJ70avmXN0zb5IaBDS root@
172-20-12-46"
}
```

Name	Type	Description	Starting Version
sshKey	String	The SSH key of the VM instance.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVmSshKeyAction action = new GetVmSshKeyAction();
action.uuid = "71e1defb50aa42128605fc702cc00137";
action.sessionId = "2f3fe0048fc6485f9123541a1244411f";
GetVmSshKeyAction.Result res = action.call();
```

Python SDK

```
GetVmSshKeyAction action = GetVmSshKeyAction()
action.uuid = "c66da31c27004804b59f672002d4371c"
action.sessionId = "2b883a9c99e942f295beab6761ff8657"
```

```
GetVmSshKeyAction.Result res = action.call()
```

5.1.1.52 DeleteVmSshKey

API Request

URLs

```
DELETE zstack/v1/vm-instances/{uuid}/ssh-keys
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth: 2698b6ec6f4241e696c75416e8e31b48" \
-X DELETE http://localhost:8080/zstack/v1/vm-instances/
add84c70ff0f4c98b897d6a3d7ba475c/ssh-keys
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	Optional. The VM instance UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1ea667c144cf431e9b1a9ca503947735",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "8de2e6726a4d412d9a8a445c5a85cfe4",
    "clusterUuid": "51900cf42e62496e90f61a9553f2dd44",
    "imageUuid": "309fa4ff1c1244dab6a350260e7c5838",
    "hostUuid": "64eeb6a53f534903b645f881e143140c",
    "lastHostUuid": "f11e3f8134a9473e8754580ab24e425e",
    "instanceOfferingUuid": "701ec48f6e084db4801ef0029cd8cee5",
    "rootVolumeUuid": "627b25aebb5143a9a98bb3cab47341cf",
    "platform": "Linux",
```

```

"defaultL3NetworkUuid": "056f3dc6e1ec4a71b5bff6f0db3cc749",
"type": "UserVm",
"hypervisorType": "KVM",
"memorySize": 8.589934592E9,
"cpuNum": 1.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Apr 24, 2017 7:11:29 PM",
"lastOpDate": "Apr 24, 2017 7:11:29 PM",
"state": "Stopped",
"vmNics": [
  {
    "uuid": "33f03792d00c471e94b4cc42457a7e2a",
    "vmInstanceUuid": "1ea667c144cf431e9b1a9ca503947735",
    "usedIpUuid": "0dc93b05d54643b699a02427688a0871",
    "l3NetworkUuid": "056f3dc6e1ec4a71b5bff6f0db3cc749",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Apr 24, 2017 7:11:29 PM",
    "lastOpDate": "Apr 24, 2017 7:11:29 PM"
  }
],
"allVolumes": [
  {
    "uuid": "627b25aebb5143a9a98bb3cab47341cf",
    "name": "Root-Volume-For-VM-1ea667c144cf431e9b1a9ca503947735",
    "primaryStorageUuid": "1337db63a9c1489381a30cfc3bbb9965",
    "vmInstanceUuid": "1ea667c144cf431e9b1a9ca503947735",
    "diskOfferingUuid": "02e831a9c4634cf898e65ef074fdacf0",
    "rootImageUuid": "309fa4ff1c1244dab6a350260e7c5838",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-627b25aebb5143a9a98bb3cab47341cf/627b25aebb5143a9a98bb3cab47341cf.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Apr 24, 2017 7:11:29 PM",
    "lastOpDate": "Apr 24, 2017 7:11:29 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
DeleteVmSshKeyAction action = new DeleteVmSshKeyAction();
action.uuid = "59ab1ff13ea947769b7522cd95311837";
action.sessionId = "ad1c38b4ce1343a28a06d3eb08ae1123";
DeleteVmSshKeyAction.Result res = action.call();
```

Python SDK

```
DeleteVmSshKeyAction action = DeleteVmSshKeyAction()
action.uuid = "22b709aa71ec47a2a0e0f758b55e844e"
action.sessionId = "f70cfa4d6dc04f2aa567621501247954"
```

```
DeleteVmSshKeyAction.Result res = action.call()
```

5.1.1.53 ChangeVmPassword

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVmPassword": {
    "password": "password",
    "account": "root"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeVmPassword":
{"password":"password","account":"root"}}' \
http://localhost:8080/zstack/v1/vm-
instances/6401e6a584b43fcfaebe401fd07f6f92/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
password	String	body (contained in the changeVmPa	The password.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		ssword structure)			
account	String	body (contained in the changeVmPa ssword structure)	The account.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ChangeVmPasswordAction action = new ChangeVmPasswordAction();
action.uuid = "68bbdbf738884c3486f0fc0faf42c42c";
action.password = "password";
action.account = "root";
action.sessionId = "815834f2143b45c0a16fab615616795a";
ChangeVmPasswordAction.Result res = action.call();
```

Python SDK

```
ChangeVmPasswordAction action = ChangeVmPasswordAction()
action.uuid = "39f2732b2c214fe29fb2fa82f748a4f6"
action.password = "password"
action.account = "root"
action.sessionId = "fee2d467d9af4dc5b541a56a736cb457"
```



```
ChangeVmPasswordAction.Result res = action.call()
```

5.1.1.54 SetVmConsolePassword

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmConsolePassword": {
    "consolePassword": "password"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmConsolePassword":{"consolePassword":"password"}}' \
http://localhost:8080/zstack/v1/vm-instances/18a8034dbb483acbad9400916fe1e56c/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
consolePassword	String	body (contained in the setVmConso	The console password, which is a		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		lePassword structure)	plain text string.		
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "bce15aed2a083a258b0d4a4459bf4045",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "b53edec7e1a83f9da3cf8df77c571518",
    "clusterUuid": "4b9c77951519303a8da978ec7794d36e",
    "imageUuid": "55f62c5a6f27386bab19ad847d03d7ea",
    "hostUuid": "a93d581689a334fab3cd9be944c9019",
    "lastHostUuid": "548d5d819eb83c6a96ab63c5d7123b82",
    "instanceOfferingUuid": "d2c8669d1caf3741a53f25d1e30c9c38",
    "rootVolumeUuid": "05b1fab950eb3c02abe7d4a4c7a9509c",
    "platform": "Linux",
    "defaultL3NetworkUuid": "a2e4d085db833457ac01b617a4fb3f65",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "a653fd4b6b093d52924e88fe1b54d13d",
        "vmInstanceUuid": "bce15aed2a083a258b0d4a4459bf4045",
        "usedIpUuid": "f0d88327a73a34849d1c733348dceed7",
        "l3NetworkUuid": "a2e4d085db833457ac01b617a4fb3f65",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "05b1fab950eb3c02abe7d4a4c7a9509c",
        "name": "Root-Volume-For-VM-bce15aed2a083a258b0d4a4459bf4045",
```

```

    "primaryStorageUuid": "3f22c507730d36e4b94bbc6ecbb285ed",
    "vmInstanceUuid": "bce15aed2a083a258b0d4a4459bf4045",
    "diskOfferingUuid": "bcba65f045db3538820db3e997fa507a",
    "rootImageUuid": "55f62c5a6f27386bab19ad847d03d7ea",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-05b1fab950eb3c02abe7d4a4c7a9509c/05b1fab950
eb3c02abe7d4a4c7a9509c.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6

Name	Type	Description	Starting Version
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
SetVmConsolePasswordAction action = new SetVmConsolePasswordAction();
action.uuid = "6e935fb07f7042e4b446e9dfe4682fb8";
action.consolePassword = "password";
action.sessionId = "89efad1766a24f8aae2b9acf36144714";
SetVmConsolePasswordAction.Result res = action.call();
```

Python SDK

```
SetVmConsolePasswordAction action = SetVmConsolePasswordAction()
action.uuid = "8180d69a46474d83be4d2f2018f20b9b"
action.consolePassword = "password"
action.sessionId = "d59425db0bf148029cb619264a09087b"
SetVmConsolePasswordAction.Result res = action.call()
```

5.1.1.55 GetVmConsolePassword

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/console-passwords
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 64bdb6ac8c3044d589ab6a0e96745fc2" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/3bc9f63f0de6492991c59bef96b27565/console-passwords
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "consolePassword": "password"
}
```

Name	Type	Description	Starting Version
password	String	The console password.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVmConsolePasswordAction action = new GetVmConsolePasswordAction();
action.uuid = "b06703c5616e4c29ba4d080ea6b3d760";
action.sessionId = "4cf31da078ce44348e0d77af4269c756";
GetVmConsolePasswordAction.Result res = action.call();
```

Python SDK

```
GetVmConsolePasswordAction action = GetVmConsolePasswordAction()
action.uuid = "73b0881a95c0456ca9d20f2896ea6b76"
action.sessionId = "d568904f39914ffba6245aa3c949b37"
GetVmConsolePasswordAction.Result res = action.call()
```

5.1.1.56 DeleteVmConsolePassword

API Request

URLs

```
DELETE zstack/v1/vm-instances/{uuid}/console-password
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 91e9a99b7b23405e9b841f5b20ab5645" \
-X DELETE http://localhost:8080/zstack/v1/vm-instances/971c0188520145f682c32079f83108ff/console-password?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "69217bbc6ec440ea9c4d0f30403ddab9",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "49b47c3d1358407581450d1bffa619b",
    "clusterUuid": "7c500334d3af42b683103b3ab09b9527",
    "imageUuid": "d515053df20b466cb98104ef939f48bb",
    "hostUuid": "e3c12c2c157946a9adb28870eb2e1884",
    "lastHostUuid": "55be742a1c4442fc8cd2401baebde106",
    "instanceOfferingUuid": "f561cb2a365f484f9a93f87aaafa8d03",
    "rootVolumeUuid": "4e07afc3a7c3471797f2cda5b0655d74",
    "platform": "Linux",
    "defaultL3NetworkUuid": "6b7c934ecaec4ffabfc7a111d1c4a262",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "May 11, 2017 1:22:35 PM",
    "lastOpDate": "May 11, 2017 1:22:35 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "e4cf2283c77d4183938f3d535523df0e",
        "vmInstanceUuid": "69217bbc6ec440ea9c4d0f30403ddab9",
        "usedIpUuid": "4ab173662e184155bdcc30d55ba83e99",
        "l3NetworkUuid": "6b7c934ecaec4ffabfc7a111d1c4a262",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "May 11, 2017 1:22:35 PM",
        "lastOpDate": "May 11, 2017 1:22:35 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "4e07afc3a7c3471797f2cda5b0655d74",
```

```

    "name": "Root-Volume-For-VM-69217bbc6ec440ea9c4d0f30403ddab9",
    "primaryStorageUuid": "9915c3b248d1407892e214eb67217caa",
    "vmInstanceUuid": "69217bbc6ec440ea9c4d0f30403ddab9",
    "diskOfferingUuid": "a819905e63774a7981bafc947b7fbbcb",
    "rootImageUuid": "d515053df20b466cb98104ef939f48bb",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/\
vol-4e07afc3a7c3471797f2cda5b0655d74/4e07afc3a7c3471797f2cda5b0655d74.
qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "May 11, 2017 1:22:35 PM",
    "lastOpDate": "May 11, 2017 1:22:35 PM"
  }
}
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
DeleteVmConsolePasswordAction action = new DeleteVmConsolePasswordAction();
action.uuid = "ac34ea877bc24c0bb36e8d52d1046479";
action.sessionId = "dbd8f0f101bf4318bd44814c7f3b03da";
DeleteVmConsolePasswordAction.Result res = action.call();
```

Python SDK

```
DeleteVmConsolePasswordAction action = DeleteVmConsolePasswordAction()
action.uuid = "9cefd9cf5c2a409f91ff902931eade7b"
action.sessionId = "9514a4d5eacd4c4f9a5dccc7bd99e3"
DeleteVmConsolePasswordAction.Result res = action.call()
```

5.1.1.57 GetVmConsoleAddress

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/console-addresses
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 5c66c9a616334283b055d150680fff98" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
bf2211ae8eaf408b817d3a05c19e2226/console-addresses
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "hostIp": "192.168.10.100",
  "port": 5900.0,
  "protocol": "vnc",
  "vdiPortInfo": {
    "vncPort": 5900.0
  }
}
```

Name	Type	Description	Starting Version
hostIp	String	The IP address of the host where the VM instance is running.	0.6
port	int	The console port of the VM instance.	0.6
protocol	String	The console protocol of the VM instance. Options: - vnc - spice - vncAndSpice	0.6
success	boolean	Whether the operation succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	
vdiPortInfo	vdiPortInfo	See vdiPortInfo .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#vdiPortInfo

Name	Type	Description	Starting Version
vncPort	Integer	The VNC port No.	3.7.0
spicePort	Integer	The SPICE port No.	3.7.0
spiceTlsPort	Integer	If TLS encryption is enabled for SPICE, two ports will be available: spiceTlsPort and spicePort.	3.7.0

Name	Type	Description	Starting Version
		To connect the VM instance by using a SPICE client, use <code>spiceTlsPort</code> .	

SDK Sample

Java SDK

```
GetVmConsoleAddressAction action = new GetVmConsoleAddressAction();
action.uuid = "d6bb8b652c1445969b5c4227385956d3";
action.sessionId = "1c0ec00749234a96978591d641e0c64d";
GetVmConsoleAddressAction.Result res = action.call();
```

Python SDK

```
GetVmConsoleAddressAction action = GetVmConsoleAddressAction()
action.uuid = "f6b7fe2da3ae4c929ad1c8ed14f37c8e"
action.sessionId = "5f127b3df90245ed93ef9da531442fdc"
GetVmConsoleAddressAction.Result res = action.call()
```

5.1.1.58 SetVmHostname

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmHostname": {
    "hostname": "vm1.zstack.org"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmHostname":{"hostname":"vm1.zstack.org"}}' \
http://localhost:8080/zstack/v1/vm-
instances/0d71345add0230f2a893e7789a831b81/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
hostname	String	body (contained in the setVmHostname structure)	The hostname, which must conform to the RFC 1123 specification.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVmHostnameAction action = new SetVmHostnameAction();
action.uuid = "ce11eb85ff0f417c9f1255f43e0bb124";
action.hostname = "vm1.zstack.org";
action.sessionId = "fc2d7aab6f0545029fa52fa068dabfbb";
```



```
SetVmHostnameAction.Result res = action.call();
```

Python SDK

```
SetVmHostnameAction action = SetVmHostnameAction()
action.uuid = "7f11dce627ce4a0db39f20ce2e1afc57"
action.hostname = "vm1.zstack.org"
action.sessionId = "cb33487362ca41599fc2b43a119d8bc6"
SetVmHostnameAction.Result res = action.call()
```

5.1.1.59 GetVmHostname

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/hostnames
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth: 0e3cbe22c03a43bc9b7b3ae76c57a0e7" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
c5c6665ccbe2444e9cfa393366cdb5d4/hostnames
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "hostname": "vm1.zstack.orgl"
```

}

Name	Type	Description	Starting Version
hostname	String	The VM instance hostname.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVmHostnameAction action = new GetVmHostnameAction();
action.uuid = "82c0f5918de14f65abe7ba5d37c28502";
action.sessionId = "24f9301f25784707a477483c5702c034";
```

```
GetVmHostnameAction.Result res = action.call();
```

Python SDK

```
GetVmHostnameAction action = GetVmHostnameAction()
action.uuid = "5070e337b731448ca0698f83c7fc4c26"
action.sessionId = "f13e0ed993134a8ea35a3d382a971b14"
GetVmHostnameAction.Result res = action.call()
```

5.1.1.60 DeleteVmHostname

API Request

URLs

```
DELETE zstack/v1/vm-instances/{uuid}/hostnames?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth efe37b8868b54c6c93b9f83a04ffe27c" \
-X DELETE http://localhost:8080/zstack/v1/vm-instances/\
55fefc89f98b49f99e96bb01765d42ed/hostnames?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
```

```

    "error": {
      "code": "SYS.1001",
      "description": "A message or a operation timeout",
      "details": "Create VM on KVM timeout after 300s"
    }
  }
}

```

SDK Sample

Java SDK

```

DeleteVmHostnameAction action = new DeleteVmHostnameAction();
action.uuid = "ab14af23812445e891695e0c9ef7b635";
action.deleteMode = "Permissive";
action.sessionId = "25d8bc148fcb4061b0aa340d1e4c68a8";
DeleteVmHostnameAction.Result res = action.call();

```

Python SDK

```

DeleteVmHostnameAction action = DeleteVmHostnameAction()
action.uuid = "0f4ad3768b1e4e8bb1ec33646a3067de"
action.deleteMode = "Permissive"
action.sessionId = "fb18f70b6fc24b5f955817aaabbae4cc"
DeleteVmHostnameAction.Result res = action.call()

```

5.1.1.61 CreateStartVmInstanceScheduler

API Request

URLs

```
POST zstack/v1/vm-instances/{vmUuid}/schedulers/starting
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "schedulerName": "create-vm-scheduler",
    "schedulerDescription": "for test create vm scheduler",
    "type": "simple",
    "interval": 5.0,
    "repeatCount": 10.0,
    "startTime": 0.0
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth: cf1274ab34e448cdb7f8aabd8461683e" \
-X POST -d '{"params":{"schedulerName":"create-vm-
scheduler","schedulerDescription":\
"for test create vm
scheduler","type":"simple","interval":5.0,"repeatCount":10.0,"startTime":0.0}}'
http://localhost:8080/zstack/v1/vm-
instances/0a8a39e89a104282b0ff78446515d7f1/schedulers/starting
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmUuid	String	url	The VM instance UUID.		0.6
clusterUuid	String	body (contained in the params structure)	Optional. The cluster UUID.		0.6
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		0.6
schedulerName	String	body (contained in the params structure)	The scheduler name.		1.6
schedulerDescription	String	body (contained in the params structure)	Optional. The scheduler description.		1.6
type	String	body (contained in the params structure)	The scheduler type, including: simple and cron.	• simple • cron	1.6

Name	Type	Location	Description	Optional Value	Starting Version
interval	Integer	body (contained in the params structure)	Optional. The scheduler interval. Unit: second.		1.6
repeatCount	Integer	body (contained in the params structure)	Optional. The scheduler repeat count. This parameter is applied to only schedulers of the simple type.		1.6
startTime	Long	body (contained in the params structure)	Optional. The scheduler start time, which must conform to the Unix timestamp format. If set to 0, the scheduler starts immediately.		1.6
cron	String	body (contained in the params structure)	Optional. The Cron expression, which must conform to the Java Quartz Cron format.		1.6
resourceUuid	String	body (contained in the params structure)	Optional. The UUID that is used to create a scheduler.		0.6
systemTags	List	body	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3e27a74894fb47b5a3c86c2b44409ccb",
    "targetResourceUuid": "d596e0adcb2b49a8a9efd132f0e43a73",
    "schedulerName": "Test",
    "schedulerType": "simple",
    "repeatCount": 10.0,
    "startTime": "Apr 24, 2017 7:11:02 PM",
    "createDate": "Apr 24, 2017 7:11:02 PM",
    "lastOpDate": "Apr 24, 2017 7:11:02 PM",
    "jobClassName": "CreateVolumeSnapshotJob",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	1.6
inventory	SchedulerInventory	See inventory .	1.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
targetResourceUuid	String		0.6
schedulerName	String		0.6
schedulerJob	String		0.6
schedulerType	String		0.6
schedulerInterval	Integer		0.6
repeatCount	Integer		0.6
cronScheduler	String		0.6
startTime	Timestamp		0.6
stopTime	Timestamp		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6

SDK Sample

Java SDK

```
CreateStartVmInstanceSchedulerAction action = new CreateStartVmInstanceSchedulerAction();
action.vmUuid = "7d86597d42eb4e31b2497a06361f710b";
action.schedulerName = "create-vm-scheduler";
```



```

action.schedulerDescription = "for test create vm scheduler";
action.type = "simple";
action.interval = 5.0;
action.repeatCount = 10.0;
action.startTime = 0.0;
action.sessionId = "a5e890d5bd78487f979861dee02aaafe";
CreateStartVmInstanceSchedulerAction.Result res = action.call();

```

Python SDK

```

CreateStartVmInstanceSchedulerAction action = CreateStartVmInstanc
eSchedulerAction()
action.vmUuid = "26799d709f7e4794b33fb07cfd269373"
action.schedulerName = "create-vm-scheduler"
action.schedulerDescription = "for test create vm scheduler"
action.type = "simple"
action.interval = 5.0
action.repeatCount = 10.0
action.startTime = 0.0
action.sessionId = "d5fcddc65c454f6f85625f954d9507e5"
CreateStartVmInstanceSchedulerAction.Result res = action.call()

```

5.1.1.62 CreateStopVmInstanceScheduler

API Request

URLs

```
POST zstack/v1/vm-instances/{vmUuid}/schedulers/stopping
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "schedulerName": "vm-scheduler",
    "schedulerDescription": "for test stop vm scheduler",
    "type": "simple",
    "interval": 5.0,
    "repeatCount": 10.0,
    "startTime": 0.0
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth a19cb92d7c264d1d939b24b3d1cb07dc" \
-X POST http://localhost:8080/zstack/v1/vm-
instances/09b1ee5bddea44a5bb56c471deae95d5/schedulers/stopping?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmUuid	String	url	The VM instance UUID		0.6
schedulerName	String	body (contained in the params structure)	The scheduler name.		1.6
schedulerDescription	String	body (contained in the params structure)	Optional. The scheduler description.		1.6
type	String	body (contained in the params structure)	The scheduler type, including: simple and cron.	• simple • cron	1.6
interval	Integer	body (contained in the params structure)	Optional. The scheduler interval. Unit: second.		1.6
repeatCount	Integer	body (contained in the params structure)	Optional. The scheduler repeat count. This parameter is applied to only schedulers of the simple type.		1.6
startTime	Long	body (contained in	Optional. The scheduler start		1.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	time, which must conform to the Unix timestamp format. If set to 0, the scheduler starts immediately.		
cron	String	body (contained in the params structure)	Optional. The Cron expression, which must conform to the Java Quartz Cron format.		1.6
resourceUuid	String	body (contained in the params structure)	Optional. The UUID that is used to create a scheduler.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1c1b66d878494610aab6833dde9c6c04",
    "targetResourceUuid": "f1dd6bd2ae484bd5b3375c7579756e48",
    "schedulerName": "Test",
    "schedulerType": "simple",
    "repeatCount": 10.0,
    "startTime": "May 11, 2017 1:22:53 PM",
    "createDate": "May 11, 2017 1:22:53 PM",
    "lastOpDate": "May 11, 2017 1:22:53 PM",
    "jobClassName": "StopVmInstanceJob",
    "state": "Enabled"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	1.6
inventory	SchedulerInventory	See inventory .	1.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
targetResourceUuid	String		0.6

Name	Type	Description	Starting Version
schedulerName	String		0.6
schedulerJob	String		0.6
schedulerType	String		0.6
schedulerInterval	Integer		0.6
repeatCount	Integer		0.6
cronScheduler	String		0.6
startTime	Timestamp		0.6
stopTime	Timestamp		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6

SDK Sample

Java SDK

```
CreateStopVmInstanceSchedulerAction action = new CreateStopVmInstance
SchedulerAction();
action.vmUuid = "12cd4882e5784a81967a314be5f10a55";
action.schedulerName = "vm-scheduler";
action.schedulerDescription = "for test stop vm scheduler";
action.type = "simple";
action.interval = 5.0;
action.repeatCount = 10.0;
action.startTime = 0.0;
action.sessionId = "256f557f46ff499aad22d7b1776a7567";
CreateStopVmInstanceSchedulerAction.Result res = action.call();
```

Python SDK

```
CreateStopVmInstanceSchedulerAction action = CreateStopVmInstance
SchedulerAction()
action.vmUuid = "3043caa47c6a4a0aa498f903ee5a3cbf"
action.schedulerName = "vm-scheduler"
action.schedulerDescription = "for test stop vm scheduler"
action.type = "simple"
action.interval = 5.0
action.repeatCount = 10.0
action.startTime = 0.0
action.sessionId = "3bdb1579024b433895943d4ff6278d15"
```

```
CreateStopVmInstanceSchedulerAction.Result res = action.call()
```

5.1.1.63 CreateRebootVmInstanceScheduler

API Request

URLs

```
POST zstack/v1/vm-instances/{vmUuid}/schedulers/rebooting
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "schedulerName": "vm-scheduler",
    "schedulerDescription": "for test restart vm scheduler",
    "type": "simple",
    "interval": 5.0,
    "repeatCount": 10.0,
    "startTime": 0.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth fa354b2ef2b34f109f268d264eee4d87" \
-X POST http://localhost:8080/zstack/v1/vm-
instances/08eaedbeb14841c5bb8564663319fed9/\
schedulers/rebooting?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmUuid	String	url	The VM instance UUID		0.6

Name	Type	Location	Description	Optional Value	Starting Version
schedulerName	String	body (contained in the params structure)	The scheduler name.		1.6
schedulerDescription	String	body (contained in the params structure)	Optional. The scheduler description.		1.6
type	String	body (contained in the params structure)	The scheduler type, including: simple and cron.	• simple • cron	1.6
interval	Integer	body (contained in the params structure)	Optional. The scheduler interval. Unit: second.		1.6
repeatCount	Integer	body (contained in the params structure)	Optional. The scheduler repeat count. This parameter is applied to only schedulers of the simple type.		1.6
startTime	Long	body (contained in the params structure)	Optional. The scheduler start time, which must conform to the Unix timestamp format. If set to 0, the scheduler starts immediately.		1.6

Name	Type	Location	Description	Optional Value	Starting Version
cron	String	body (contained in the params structure)	Optional. The Cron expression, which must conform to the Java Quartz Cron format.		1.6
resourceUuid	String	body (contained in the params structure)	Optional. The UUID that is used to create a scheduler.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2664ccec6e584e529ab6671d88f87763",
    "targetResourceUuid": "308a32f93a7842ce94bdab3220f75aeb",
    "schedulerName": "Test",
    "schedulerType": "simple",
    "repeatCount": 10.0,
    "startTime": "May 11, 2017 1:22:27 PM",
    "createDate": "May 11, 2017 1:22:27 PM",
    "lastOpDate": "May 11, 2017 1:22:27 PM",
    "jobClassName": "CreateVolumeSnapshotJob",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	1.6
inventory	SchedulerInventory	See inventory .	1.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
targetResourceUuid	String		0.6
schedulerName	String		0.6
schedulerJob	String		0.6
schedulerType	String		0.6
schedulerInterval	Integer		0.6
repeatCount	Integer		0.6
cronScheduler	String		0.6
startTime	Timestamp		0.6
stopTime	Timestamp		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6

SDK Sample

Java SDK

```
CreateRebootVmInstanceSchedulerAction action = new CreateRebootVmInstanceSchedulerAction();
action.vmUuid = "65f8b54efe254b8e8e5b427bfdadd1e6";
action.schedulerName = "vm-scheduler";
action.schedulerDescription = "for test restart vm scheduler";
action.type = "simple";
action.interval = 5.0;
action.repeatCount = 10.0;
action.startTime = 0.0;
action.sessionId = "3cedf9bd8bbf424f860057259adfcdf";
CreateRebootVmInstanceSchedulerAction.Result res = action.call();
```

Python SDK

```
CreateRebootVmInstanceSchedulerAction action = CreateRebootVmInstanceSchedulerAction()
action.vmUuid = "1b0f699afaba45e1865f00bbaf026c6a"
action.schedulerName = "vm-scheduler"
action.schedulerDescription = "for test restart vm scheduler"
action.type = "simple"
action.interval = 5.0
action.repeatCount = 10.0
action.startTime = 0.0
action.sessionId = "22758ee34b2b4822a3253a8a56cee6cf"
CreateRebootVmInstanceSchedulerAction.Result res = action.call()
```

5.1.1.64 GetVmBootOrder

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/boot-orders
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth: 458995c072644d28b32b26f69e512c2c" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/426cff83f17d4a5aa7c752484d730f20/boot-orders
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "order": [
    "HardDisk",
    "CdRom"
  ]
}
```

Name	Type	Description	Starting Version
orders	List	The boot device list.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null .	0.6
opaque	LinkedHashMap	The reserved field. Default value: null .	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVmBootOrderAction action = new GetVmBootOrderAction();
action.uuid = "914ab429715b40d59efa76c1ccfe64d8";
action.sessionId = "0472be4a6e2c4e7c9d7bcf3da2938313";
GetVmBootOrderAction.Result res = action.call();
```

Python SDK

```
GetVmBootOrderAction action = GetVmBootOrderAction()
action.uuid = "cba88e6e561049c8b7beaeccf4d46279"
action.sessionId = "bd37fd5e33e847d4bef4bb536d6410ea"
GetVmBootOrderAction.Result res = action.call()
```

5.1.1.65 SetVmBootOrder

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmBootOrder": {
    "bootOrder": [
      "CdRom",
      "HardDisk"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmBootOrder":{"bootOrder":["CdRom","HardDisk"]}}' \
http://localhost:8080/zstack/v1/vm-instances/
f757785b3980305095c89eb2b4e1b785/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
bootOrder	List	body (contained in the setVmBootOrder structure)	Optional. The boot device. Options: • CdRom: CD-ROM • HardDisk: hard disk • Network: network If not specified, the default boot order (HardDisk, CdRom, CdRom) will be used.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you set the boot order for a VM instance in ZStack Cloud, you can specify whether to make the setting take effect only once on the next VM boot by adding the **bootOrderOnce** option to **SystemTags**. Valid values: true and false.
 - Syntax: `bootOrderOnce:: {%s}`
 - Example: `bootOrderOnce:: true`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "16a1759999f43522989d50257c148f03",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "52c0c4d3965330c78035324338caca26",
    "clusterUuid": "0d18aab547103bcfb2098655bd1fc71b",
    "imageUuid": "f2a2344a96a93d84958cdd8e9396ac53",
    "hostUuid": "fbd24b0405723d06b41fb0d41d126a53",
    "lastHostUuid": "3e0502a12a413e5a8cea8022d774e8f7",
    "instanceOfferingUuid": "bac644877b783182ace705f49d8b0d5d",
    "rootVolumeUuid": "963beb34a38a31c6a663861152ebdfa7",
    "platform": "Linux",
    "defaultL3NetworkUuid": "58e3259d7ac63196bab7b4fde66a63e4",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Stopped",
    "vmNics": [
      {
        "uuid": "843c879cfd36341a845551d4f3f80adc",
        "vmInstanceUuid": "16a1759999f43522989d50257c148f03",
        "usedIpUuid": "34e14b0d570930bbaf521e6cf11703ad",
        "l3NetworkUuid": "58e3259d7ac63196bab7b4fde66a63e4",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "963beb34a38a31c6a663861152ebdfa7",
        "name": "Root-Volume-For-VM-16a1759999f43522989d50257c148f03",
        "primaryStorageUuid": "bb0ef0006c0831bcb36bf8cb449e4e5",
        "vmInstanceUuid": "16a1759999f43522989d50257c148f03",
        "diskOfferingUuid": "d3208f0181f1312b8807e228e1f89bc9",
        "rootImageUuid": "f2a2344a96a93d84958cdd8e9396ac53",
        "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-963beb34a38a31c6a663861152ebdfa7/963beb34a38a31c6a663861152ebdfa7.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 1.073741824E11,
        "actualSize": 2.147483648E10,
        "deviceId": 0.0,
        "state": "Enabled",
        "status": "Ready",
        "createDate": "Nov 14, 2017 10:20:57 PM",

```

```

    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstance Inventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6

Name	Type	Description	Starting Version
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6

Name	Type	Description	Starting Version
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String	The root image UUID.	0.6
installPath	String	The volume installation path on the primary storage.	0.6
type	String	The volume type, including data volume and root volume.	0.6
format	String	The volume format.	0.6
size	Long	The volume size.	0.6
actualSize	Long	The actual size of the volume.	0.6
deviceId	Integer		0.6
state	String	Whether the volume is enabled.	0.6
status	String	The volume status.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean	Whether the volume can be shared.	0.6
volumeQos	String	The volume QoS. Format: total=1048576.	3.2.0

SDK Sample

Java SDK

```
SetVmBootOrderAction action = new SetVmBootOrderAction();
action.uuid = "a83e7ff6d8d84f6fa48a089b2a918258";
action.bootOrder = asList("CdRom", "HardDisk");
action.sessionId = "93251a3a33994bd9b3d54d4d9abcf5d7";
SetVmBootOrderAction.Result res = action.call();
```

Python SDK

```
SetVmBootOrderAction action = SetVmBootOrderAction()
action.uuid = "dccc7be070934387b50fe96f30439231"
action.bootOrder = [CdRom, HardDisk]
action.sessionId = "2da90129d60741a3bc69228448ed9795"
SetVmBootOrderAction.Result res = action.call()
```

5.1.1.66 GetCandidateZonesClustersHostsForCreatingVm

API Request

URLs

```
GET zstack/v1/vm-instances/candidate-destinations
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/candidate-
destinations?
instanceOfferingUuid=0a3d761b0e3031a9b3c62f418fdade09&imageUuid=f6885d39912b34788
&l3NetworkUuids=51f30f4fcd3b3a0da2998b37f1a8d8a3\
&dataDiskOfferingUuids=cf8aa933d58230ee80a4181a66772d0b\
&dataDiskOfferingUuids=6a5ea214bc88372285ff3c301d64428c&clusterUuid=1f6b12b24aa03
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
instanceOfferingUuid	String	query	Optional. The instance offering UUID.		3.10.0
imageUuid	String	query	The image UUID.		0.6
l3NetworkUuids	List	query	The L3 network list.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
rootDiskOfferingUuid	String	query	Optional. The disk offering of the root volume. This parameter is required only when the image type specified in imageUuid is ISO.		0.6
dataDiskOfferingUuids	List	query	Optional. The disk offering list.		0.6
zoneUuid	String	query	Optional. The zone UUID.		0.6
clusterUuid	String	query	Optional. The cluster UUID.		0.6
defaultL3NetworkUuid	String	query	Optional. The UUID of the default L3 network.		0.6
cpuNum	int	body	Optional. The CPU count.		3.10.0
memorySize	long	body	Optional. The memory size. Unit: Byte.		3.10.0
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "zones": [
    {
      "uuid": "b145bc2ad8f14810a6eec0f28508ca14",
      "name": "zone"
    }
  ],
  "clusters": [
    {
      "name": "cluster1",
      "uuid": "49adbf0f48a14b899b0e6f7928556313",
      "hypervisorType": "KVM",
      "createDate": "May 11, 2017 1:23:06 PM",
      "lastOpDate": "May 11, 2017 1:23:06 PM",

```

```

    "zoneUuid": "b68fec24ba0f492c94c2e046072c16f0"
  },
  ],
  "hosts": [
    {
      "zoneUuid": "b145bc2ad8f14810a6eec0f28508ca14",
      "name": "example",
      "uuid": "e1a5cb10bcb48b4ab6dd4e648ef5960",
      "clusterUuid": "d5b32ea0ae1444d3b8b5a6b9d759af54",
      "description": "example",
      "managementIp": "192.168.0.1",
      "hypervisorType": "KVM",
      "state": "Enabled",
      "status": "Connected",
      "totalCpuCapacity": 4.0,
      "availableCpuCapacity": 2.0,
      "totalMemoryCapacity": 4.0,
      "availableMemoryCapacity": 4.0,
      "createDate": "May 11, 2017 1:23:06 PM",
      "lastOpDate": "May 11, 2017 1:23:06 PM"
    }
  ]
}

```

Name	Type	Description	Starting Version
success	boolean	Whether the operation succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
zones	List	See zones .	0.6
clusters	List	See clusters .	0.6
hosts	List	See hosts .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#zones

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#clusters

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The cluster state.	0.6
hypervisorType	String	The hypervisor type.	0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
zoneUuid	String	The zone UUID.	0.6
type	String	The reserved field.	0.6

#hosts

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
description	String	The detailed description of the resource.	0.6
managementIp	String		0.6
hypervisorType	String		0.6
state	String		0.6
status	String		0.6
totalCpuCapacity	Long		0.6
availableCpuCapacity	Long		0.6
totalMemoryCapacity	Long		0.6
availableMemoryCapacity	Long		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
GetCandidateZonesClustersHostsForCreatingVmAction action = new
GetCandidateZonesClustersHostsForCreatingVmAction();
action.instanceOfferingUuid = "f1569e619ba44cfeb264759df0720b19";
action.imageUuid = "57374e8324c34999ba81bd363a576653";
```

```

action.l3NetworkUuids = asList("dfac2b50c85a498780cf6d1828075e51");
action.dataDiskOfferingUuids = asList("bbe0af9d301e44d6b4605c6ed61f33d5", "49f0cbfd2b694e5f9a5cf631f7dc219b");
action.clusterUuid = "0efc966199184f99982e9874186aab38";
action.sessionId = "5d04a0ac859746dea2f9cd81329e91ea";
GetCandidateZonesClustersHostsForCreatingVmAction.Result res = action.call();

```

Python SDK

```

GetCandidateZonesClustersHostsForCreatingVmAction action = GetCandidateZonesClustersHostsForCreatingVmAction()
action.instanceOfferingUuid = "6aef4e5bcf944af293096558effda40d"
action.imageUuid = "8a93ad62da8c436e8b79f37aae134bc6"
action.l3NetworkUuids = [3f1df9b106a04503bb1c7a68c7bddf75]
action.dataDiskOfferingUuids = [71817f0e5fa04e4e8ef5c035a0f84e67, ddb83b57bfc14aadb3df1ca6d40bfe04]
action.clusterUuid = "c910b625c0f94958a6a7e4ad3df15d34"
action.sessionId = "ae4cc6df99b14fb091a9b3779228709c"
GetCandidateZonesClustersHostsForCreatingVmAction.Result res = action.call()

```

5.1.1.67 GetVmStartingCandidateClustersHosts

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/starting-target-hosts
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth: a2a9ac093ee64f669665aff2807bbe8a" \
-X GET http://localhost:8080/zstack/v1/vm-instances/d8cfc97f5099454bb3eed367a79d4e4c/starting-target-hosts

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "hostInventories": [
    {
      "zoneUuid": "1650e7c372ab4d43aa1b16e3a48f5f05",
      "name": "example",
      "uuid": "3b659b741cc743a5840aaab5a2c366d1",
      "clusterUuid": "5ecdcc0a2823494daa0c85a7889a7890",
      "description": "example",
      "managementIp": "192.168.0.1",
      "hypervisorType": "KVM",
      "state": "Enabled",
      "status": "Connected",
      "totalCpuCapacity": 4.0,
      "availableCpuCapacity": 2.0,
      "totalMemoryCapacity": 4.0,
      "availableMemoryCapacity": 4.0,
      "createDate": "Apr 24, 2017 7:11:02 PM",
      "lastOpDate": "Apr 24, 2017 7:11:02 PM"
    }
  ],
  "clusterInventories": [
    {
      "name": "cluster1",
      "uuid": "2ecd7d0ddad649e4a36a7f47e43dae1a",
      "hypervisorType": "KVM",
      "createDate": "Apr 24, 2017 7:11:02 PM",
      "lastOpDate": "Apr 24, 2017 7:11:02 PM",
      "zoneUuid": "268a180f9a7d4ebe9f5a0e7ad558d523"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
hosts	List	See hosts .	0.6
clusters	List	See clusters .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null	0.6
opaque	LinkedHashMap	The reserved field. Default value: null	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#hosts

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
description	String	The detailed description of the resource.	0.6
managementIp	String		0.6
hypervisorType	String		0.6
state	String		0.6
status	String		0.6
totalCpuCapacity	Long		0.6
availableCpuCapacity	Long		0.6
cpuSockets	Integer		0.6
totalMemoryCapacity	Long		0.6

Name	Type	Description	Starting Version
availableMemoryCapacity	Long		0.6
cpuNum	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#clusters

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The cluster state.	0.6
hypervisorType	String	The hypervisor type.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
zoneUuid	String	The zone UUID.	0.6
type	String	The reserved field.	0.6

SDK Sample

Java SDK

```
GetVmStartingCandidateClustersHostsAction action = new GetVmStartingCandidateClustersHostsAction();
action.uuid = "a591b94c66d6452284f9940e7807425a";
action.sessionId = "5630397e6ade47e9bd73569f5177957e";
GetVmStartingCandidateClustersHostsAction.Result res = action.call();
```

Python SDK

```
GetVmStartingCandidateClustersHostsAction action = GetVmStartingCandidateClustersHostsAction()
action.uuid = "0cb8127bcfb8431497562f7464ee9920"
action.sessionId = "9320fb483c3c4926a7870ffa045088b2"
```

```
GetVmStartingCandidateClustersHostsAction.Result res = action.call()
```

5.1.1.68 SetVmStaticIp

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmStaticIp": {
    "l3NetworkUuid": "61e66d487dff454f9509a1f19606d274",
    "ip": "192.168.10.10"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmStaticIp":
{"l3NetworkUuid": "9fcbd78edb58391f8d9b879ea87598fd", "ip": "192.168.10.10"}}'
http://localhost:8080/zstack/v1/vm-instances/
e3749802228a36038d0e17041414fd17/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		0.6
l3NetworkUuid	String	body (contained in the	The L3 network UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		setVmStaticIp structure)			
ip	String	body (contained in the setVmStaticIp structure)	Optional. The specified IP address.		4.6.21
ip6	String	body (contained in the setVmStaticIp structure)	Optional. The specified IPv6 address.		3.10.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
netmask	String	body (contained in the setVmStaticIp structure)	Optional. The IPv4 netmask.		4.6.21
gateway	String	body (contained in the setVmStaticIp structure)	Optional. The IPv4 gateway.		4.6.21
ipv6Gateway	String	body (contained in the setVmStaticIp structure)	Optional. The IPv6 gateway.		4.6.21
ipv6Prefix	String	body (contained in the setVmStaticIp structure)	Optional. The IPv6 prefix.		4.6.21

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVmStaticIpAction action = new SetVmStaticIpAction();
action.vmInstanceUuid = "e3749802228a36038d0e17041414fd17";
action.l3NetworkUuid = "9fcdbd78edb58391f8d9b879ea87598fd";
action.ip = "192.168.10.10";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVmStaticIpAction.Result res = action.call();
```

Python SDK

```
SetVmStaticIpAction action = SetVmStaticIpAction()
action.vmInstanceUuid = "e3749802228a36038d0e17041414fd17"
action.l3NetworkUuid = "9fcdbd78edb58391f8d9b879ea87598fd"
action.ip = "192.168.10.10"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetVmStaticIpAction.Result res = action.call()
```

5.1.1.69 DeleteVmStaticIp

API Request

URLs

```
DELETE zstack/v1/vm-instances/{vmInstanceUuid}/static-ips?
l3NetworkUuid={l3NetworkUuid}&deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "l3NetworkUuid": "0a52c0bd8b4049699ff5b772f3f3eb59",
    "deleteMode": "Permissive"
  },
  "systemTags": [],
}
```

```
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 64d0600e594944eca1f49970ab4ca25c" \
-X DELETE http://localhost:8080/zstack/v1/vm-
instances/faf465c53e7f47898b8f41c5e90e46d3/static-ips?
l3NetworkUuid=4ef401fb452e3b48af5914bcd336d670&deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		0.6
l3NetworkUuid	String	body	The L3 network UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "aa498202ad064d949e953e6b1c34653a",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "ac43427ffc5948c8a24aa364a4471ada",
    "clusterUuid": "ba25be3393a1445b8fdfdb8a28f87155d",
    "imageUuid": "b0884882126445ddb8e3d5de3490bdcf",
    "hostUuid": "f4f2e93245bd40c3a5db51d9ac95c593",
    "lastHostUuid": "88f9a2a245ef4a289588851f927763e2",
    "instanceOfferingUuid": "1b206ad5484645528ba14a1c27c633d0",
    "rootVolumeUuid": "200bf3e928de459d9182fea4cf7eb3fd",
  }
}
```

```

"platform": "Linux",
"defaultL3NetworkUuid": "44b85e2a6d7f443b9f0bed0842449a35",
"type": "UserVm",
"hypervisorType": "KVM",
"memorySize": 8.589934592E9,
"cpuNum": 1.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "May 11, 2017 1:22:29 PM",
"lastOpDate": "May 11, 2017 1:22:29 PM",
"state": "Running",
"vmNics": [
  {
    "uuid": "8767d51cb10341eebc866d756a23b160",
    "vmInstanceUuid": "aa498202ad064d949e953e6b1c34653a",
    "usedIpUuid": "cafa365e629846dd895cd4f273edd9bf",
    "l3NetworkUuid": "44b85e2a6d7f443b9f0bed0842449a35",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "May 11, 2017 1:22:29 PM",
    "lastOpDate": "May 11, 2017 1:22:29 PM"
  }
],
"allVolumes": [
  {
    "uuid": "200bf3e928de459d9182fea4cf7eb3fd",
    "name": "Root-Volume-For-VM-aa498202ad064d949e953e6b1c34653a",
    "primaryStorageUuid": "251c44e3521e49d4982aa9c7b3b6116b",
    "vmInstanceUuid": "aa498202ad064d949e953e6b1c34653a",
    "diskOfferingUuid": "afd12ea56bd84e8b9a26fe27b11d20ca",
    "rootImageUuid": "b0884882126445ddb8e3d5de3490bdcf",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-200bf3e928de459d9182fea4cf7eb3fd/200bf3e928de459d9182fea4cf7eb3fd.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "May 11, 2017 1:22:29 PM",
    "lastOpDate": "May 11, 2017 1:22:29 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```

DeleteVmStaticIpAction action = new DeleteVmStaticIpAction();
action.vmInstanceUuid = "f81673bc3cf04884b19d5ded83cd9ff8";
action.l3NetworkUuid = "636a65b66bfc490985d44285a090ab11";
action.deleteMode = "Permissive";
action.sessionId = "93d5734188ee48058032d6a2cebebf80";
DeleteVmStaticIpAction.Result res = action.call();

```

Python SDK

```

DeleteVmStaticIpAction action = DeleteVmStaticIpAction()
action.vmInstanceUuid = "6fa2e4774cb34e72986f3a4860c5fad4"
action.l3NetworkUuid = "fa3953b839434d4a81a106e578a3a366"
action.deleteMode = "Permissive"
action.sessionId = "5cc00379d1224a1c9be943419e54f467"

```

```
DeleteVmStaticIpAction.Result res = action.call()
```

5.1.1.70 GetVmCapabilities

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/capabilities
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b883d676f4514489ab993c87f6a8ee70" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/7a6c30c6de654cdf9d29b18a78c83a64/capabilities
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "capabilities": {
    "LiveMigration": false,
    "Reimage": false,
    "VolumeMigration": true
  }
}
```

}

Name	Type	Description	Starting Version
capabilities	Map	The capabilities of the VM instance.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVmCapabilitiesAction action = new GetVmCapabilitiesAction();
action.uuid = "2323ae79b3894f0a85018a2a458247aa";
action.sessionId = "05233d04bc144482a5b4a74fdea06408";
```

```
GetVmCapabilitiesAction.Result res = action.call();
```

Python SDK

```
GetVmCapabilitiesAction action = GetVmCapabilitiesAction()
action.uuid = "0fb5a5b4a3e54314ba1c5fa2e07384d2"
action.sessionId = "71df5d9cf30845dba8d1ef804bdf2108"
GetVmCapabilitiesAction.Result res = action.call()
```

5.1.1.71 UpdateVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVmInstance": {
    "name": "new vm name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVmInstance":{"name":"new vm name"}}' http://localhost:8080/zstack/v1/vm-instances/dfa2feae60f431ac8d5f071f5594cfc1/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the updateVmInstance structure)	Optional. The VM instance name.		0.6
description	String	body (contained in the updateVmInstance structure)	Optional. The detailed description of the VM instance.		0.6
state	String	body (contained in the updateVmInstance structure)	Optional. The state of the VM instance. - Generally, the state of a VM instance cannot be updated directly. Otherwise, ZStack Cloud might misjudge the state of the VM instance. - This parameter can be used only when the actual state of the VM instance is inconsistent with the state recorded by ZStack Cloud, and the synchronization mechanism of ZStack Cloud has expired (which is usually a bug). - The administrator must fully understand the consequences of using this parameter.	- Stopped - Running	0.6
defaultL3NetworkUuid	String	body (contained in the	Optional. The UUID of the default L3 network.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		updateVmInstance structure)			
platform	String	body (contained in the updateVmInstance structure)	Optional. The platform type of the VM instance.	- Linux - Windows - WindowsVirtio - Other - Paravirtualization	0.6
cpuNum	Integer	body (contained in the updateVmInstance structure)	Optional. - The CPU count of the VM instance. You must stop or enable the VM instance for the setting of this parameter to take effect. - The VM instance that is created when NUMA is set to true in global settings can be adjusted.		0.6
memorySize	Long	body (contained in the updateVmInstance structure)	Optional. - The memory size of the VM instance. You must stop or enable the VM instance for the setting of this parameter to take effect. - The VM instance that is created when NUMA is set to true in global settings can be adjusted.		0.6
guestOsType	String	body (contained	Optional.		4.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		in the updateVmIn stance structure)			
systemTags	List	body	Optional. The system tags .		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "6710cdfb0653455809b6511a6b3aaa4",
    "name": "new vm name",
    "description": "web server VM",
    "zoneUuid": "aa63c5a3b3c436fa94e5e851f057fe23",
    "clusterUuid": "48b424d94ed239f1b18e1ce37db24cf8",
    "imageUuid": "4e1ac550da8d30c7b07162acc39773c1",
    "hostUuid": "1f3ffea4673e3e4197681ee030d1794b",
    "lastHostUuid": "d334dadb7cfc34da8f6f7d74dfd04692",
    "instanceOfferingUuid": "33b38aff5cbe3e24a9266300f7163d20",
    "rootVolumeUuid": "761df8e1eef933ee8d7f3b7f8551b754",
    "platform": "Linux",
    "defaultL3NetworkUuid": "3a3c91f4a28a31beb410d6d1c3dc862c",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "ae19167e24713aeea9c45e6f2d27249d",
        "vmInstanceUuid": "6710cdfb0653455809b6511a6b3aaa4",
        "usedIpUuid": "010f4817011b32d3b476faa3f393d765",
        "l3NetworkUuid": "3a3c91f4a28a31beb410d6d1c3dc862c",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
```

```

    "uuid": "761df8e1eef933ee8d7f3b7f8551b754",
    "name": "Root-Volume-For-VM-6710cdfb0653455809b6511a6b3aaa4",
    "primaryStorageUuid": "da81ed018a9738ff97a16d7b7a43327d",
    "vmInstanceUuid": "6710cdfb0653455809b6511a6b3aaa4",
    "diskOfferingUuid": "bd9b406d36c13fc7ad3f995535415898",
    "rootImageUuid": "4e1ac550da8d30c7b07162acc39773c1",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-761df8e1eef933ee8d7f3b7f8551b754/761df8e1ee
f933ee8d7f3b7f8551b754.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VmInstance Inventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current	0.6

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6

Name	Type	Description	Starting Version
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		4.1.0
mac	String		4.1.0
hypervisorType	String	The hypervisor type.	4.1.0
netmask	String	The netmask.	4.1.0
gateway	String	The gateway.	4.1.0
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6

Name	Type	Description	Starting Version
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String	The root volume image UUID.	4.1.0
installPath	String	The installation path of the volume on the primary storage.	4.1.0
type	String	The volume type.	4.1.0
format	String	The volume format.	4.1.0
size	Long	The volume size.	4.1.0
actualSize	Long	The actual size of the volume.	4.1.0
deviceId	Integer		0.6
state	String	Indicates whether the volume is enabled.	4.1.0

Name	Type	Description	Starting Version
status	String	Th status of the volume.	4.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
UpdateVmInstanceAction action = new UpdateVmInstanceAction();
action.uuid = "c424899cef6f4723baf0aae3acbe6020";
action.name = "new vm name";
action.sessionId = "4320eeda74fa41788522c75ed42ec889";
UpdateVmInstanceAction.Result res = action.call();
```

Python SDK

```
UpdateVmInstanceAction action = UpdateVmInstanceAction()
action.uuid = "fb287c6cb9134d208d1ed054577ad249"
action.name = "new vm name"
action.sessionId = "2f01595d029449dbbf6c052ad1914271"
UpdateVmInstanceAction.Result res = action.call()
```

5.1.1.72 CloneVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "cloneVmInstance": {
    "strategy": "InstantStart",
    "names": [
      "vm1",
      "vm2"
    ],
    "full": false
  },
  "systemTags": [],
```

```
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"cloneVmInstance":{"strategy":"InstantStart","names":
["vm1","vm2"],"full":false}}' \
http://localhost:8080/zstack/v1/vm-instances/
c4d628c203433f64b062ad07c8edf10d/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstance Uuid	String	url	The VM instance UUID		0.6
strategy	String	body (contained in the cloneVmInstance structure)	Optional. The strategy.	- CreateStopped - InstantStart - JustCreate Note: JustCreate creates only a VM record without any initialization, and this VM is not displayed on the UI.	0.6
names	List	body (contained in the cloneVmInstance structure)	The VM instance name list.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		tance structure)			
full	Boolean	body (contained in the cloneVmlns tance structure)	Optional. Whether to clone the data volume that is attached to the VM instance.		2.5.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
primaryStorageUuidForRootVolume	String	body (contained in the cloneVmlns tance structure)	Optional.		4.6.21
primaryStorageUuidForDataVolume	String	body (contained in the cloneVmlns tance structure)	Optional		4.6.21
rootVolumeSystemTags	List	body (contained in the cloneVmlns tance structure)	Optional		4.6.21
dataVolumeSystemTags	List	body (contained in the cloneVmlns tance structure)	Optional.		4.6.21

Name	Type	Location	Description	Optional Value	Starting Version
clusterUuid	String	body (contained in the cloneVmInstance structure)	Optional. The cluster UUID.		4.6.21
hostUuid	String	body (contained in the cloneVmInstance structure)	Optional. The host UUID.		4.6.21
vmNicParams	List	body (contained in the cloneVmInstance structure)	Optional. The VM NIC parameter.		5.1.0

API Response

Sample Response

```
{
  "result": {
    "numberOfClonedVm": 1,
    "inventories": [
      {
        "inventory": {
          "uuid": "327b60d6b8cd31489ade6f4830bcec16",
          "name": "new vm name",
          "description": "web server VM",
          "zoneUuid": "d886a09330e13282b7a320a98d0a53ec",
          "clusterUuid": "f6f07dff7ede3b8cac7c8595a1698832",
          "imageUuid": "3b7ff22eb60d38318835817ba6a2b6a2",
          "hostUuid": "70c0f5223d083dfea2f1a02f69906306",
          "lastHostUuid": "123f7f85f82f3e99940836d97ae18e04",
          "instanceOfferingUuid": "001537d10c433857a7a98ae0a362c910",
          "rootVolumeUuid": "c8be7ec6a8573d98a580b457a7245141",
          "platform": "Linux",
          "defaultL3NetworkUuid": "2ac50b85591b3e87b2686c529cf062f9",
          "type": "UserVm",
          "hypervisorType": "KVM",
          "memorySize": 8589934592,
          "cpuNum": 1,
          "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM",

```

```

    "state": "Running",
    "allVolumes": [
      {
        "uuid": "c8be7ec6a8573d98a580b457a7245141",
        "name": "Root-Volume-For-VM-327b60d6b8cd31489ade
6f4830bcec16",
        "primaryStorageUuid": "c2a27c5268493a5cba84b94e37b86b4d
",
        "vmInstanceUuid": "327b60d6b8cd31489ade6f4830bcec16",
        "diskOfferingUuid": "358e00e7245a39b9aa1c1849d6ba9701",
        "rootImageUuid": "3b7ff22eb60d38318835817ba6a2b6a2",
        "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-c8be7ec6a8573d98a580b457a7245141/c8be7ec6a8
573d98a580b457a7245141.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 107374182400,
        "actualSize": 21474836480,
        "deviceId": 0,
        "state": "Enabled",
        "status": "Ready",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}

```

Name	Type	Description	Starting Version
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
result	CloneVmInstanceResults	See result .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#result

Name	Type	Description	Starting Version
numberOfClonedVm	int		0.6
inventories	List	See inventories .	0.6

#inventories

Name	Type	Description	Starting Version
error	ErrorCode	See error .	0.6
inventory	VmInstanceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
architecture	String		4.6.21
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6

Name	Type	Description	Starting Version
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
guestOsType	String		4.6.21
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6
vmCdRoms	List	See cmCdRoms .	4.6.21

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.13
vmInstanceUuid	String	The VM instance UUID.	4.7.13
l3NetworkUuid	String	The L3 network UUID.	4.7.13
ip	String		4.7.13
mac	String		4.7.13
netmask	String		4.7.13
gateway	String		4.7.13
metaData	String		4.7.13
ipVersion	Integer		4.7.13
driverType	String		4.7.13
internalName	String		4.7.13
deviceId	Integer		4.7.13
type	String		4.7.13
state	String	The NIC state.	4.7.13

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	4.7.13
lastOpDate	Timestamp	The last operation date.	4.7.13
usedIps	List	See usedIps .	4.7.13

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
ipRangeUuid	String	The IP range UUID.	5.0.0
l3NetworkUuid	String	The L3 network UUID.	5.0.0
ipVersion	Integer		5.0.0
ip	String		5.0.0
netmask	String		5.0.0
gateway	String		5.0.0
usedFor	String		5.0.0
ipInLong	long		5.0.0
vmNicUuid	String	The UUID of the VM NIC.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.13
name	String	The resource name.	4.7.13
description	String	The detailed description of the resource.	4.7.13
primaryStorageUuid	String	The primary storage UUID.	4.7.13

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	4.7.13
diskOfferingUuid	String	The disk offering UUID.	4.7.13
rootImageUuid	String		4.7.13
installPath	String		4.7.13
type	String		4.7.13
format	String		4.7.13
size	Long		4.7.13
actualSize	Long		4.7.13
deviceId	Integer		4.7.13
state	String		4.7.13
status	String		4.7.13
createDate	Timestamp	The creation date.	4.7.13
lastOpDate	Timestamp	The last operation date.	4.7.13
isShareable	Boolean		4.7.13
volumeQos	String		4.7.13
lastDetachDate	Timestamp		4.7.13
lastVmInstanceUuid	String		4.7.13

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.13
vmInstanceUuid	String	The VM instance UUID.	4.7.13
deviceId	Integer		4.7.13
isoUuid	String		4.7.13
isoInstallPath	String		4.7.13
name	String	The resource name.	4.7.13

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	4.7.13
createDate	Timestamp	The creation date.	4.7.13
lastOpDate	Timestamp	The last operation date.	4.7.13

SDK Sample

Java SDK

```
CloneVmInstanceAction action = new CloneVmInstanceAction();
action.vmInstanceUuid = "c4d628c203433f64b062ad07c8edf10d";
action.strategy = "InstantStart";
action.names = asList("vm1", "vm2");
action.full = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CloneVmInstanceAction.Result res = action.call();
```

Python SDK

```
CloneVmInstanceAction action = CloneVmInstanceAction()
action.vmInstanceUuid = "c4d628c203433f64b062ad07c8edf10d"
action.strategy = "InstantStart"
action.names = [vm1, vm2]
action.full = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CloneVmInstanceAction.Result res = action.call()
```

5.1.1.73 SetVmClockTrack

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmClockTrack": {
    "track": "guest"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT '{"setVmClockTrack":
{"track":"guest","syncAfterVMResume":true,"intervalInSeconds":60.0}}'
http://localhost:8080/zstack/v1/vm-instances/
cc0a313462243900b6c843ff427b7f0e/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.1.0
track	String	body (contained in the setVmClockTrack structure)		• guest • host	4.1.0
syncAfterVMResume	Boolean	body (contained in the setVmClockTrack structure)	Optional. Specifies whether to sync time when VM instances resume running.		4.4.24
intervalInSeconds	Integer	body (contained in the setVmClockTrack structure)	Optional. The interval of time sync.	• 0 • 60 • 600 • 1800 • 3600 • 7200 • 21600	4.4.24

Name	Type	Location	Description	Valid Value	Starting Version
				43200 86400	
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

If the API succeeded, an empty JSON structure {} is returned. If the API failed, the returned JSON structure includes an error field. For example,

```
{
  "inventory": {
    "uuid": "19d64f55a9723e59849c0f9357a0dded",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "553326a3b554380ca4e4b2976efa4df5",
    "clusterUuid": "c9a8ba243c5a3d59b144e4e1ace143a2",
    "imageUuid": "e4297acdd9b43e3f9b7a8ec74211a3f2",
    "hostUuid": "f841ef12962037369ea4d8f3ba4c9c28",
    "lastHostUuid": "3b6273ea6b1a384584178e11f05bf1f0",
    "instanceOfferingUuid": "9ce1349c65ff3c80a423267837f5f34e",
    "rootVolumeUuid": "5319e0ae2b483949bf25b059a674dbc8",
    "platform": "Linux",
    "defaultL3NetworkUuid": "c715b758cd843ac997ccdfbbcc9097cc",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Stopped",
    "vmNics": [
      {
        "uuid": "8585080b6b5236a5875e8162c062e551",
        "vmInstanceUuid": "19d64f55a9723e59849c0f9357a0dded",
        "usedIpUuid": "c0bbe89468fa3b2aa6dc4e8aaa6df3f7",
        "l3NetworkUuid": "c715b758cd843ac997ccdfbbcc9097cc",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0.0,
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
```



```

    "uuid": "5319e0ae2b483949bf25b059a674dbc8",
    "name": "Root-Volume-For-VM-19d64f55a9723e59849c0f9357a0dded",
    "primaryStorageUuid": "0e4e3cf961873074b8b3eca3bc693ece",
    "vmInstanceUuid": "19d64f55a9723e59849c0f9357a0dded",
    "diskOfferingUuid": "f1b95ad6d26e336e8809764ec2936fd2",
    "rootImageUuid": "e4297acdd9b43e3f9b7a8ec74211a3f2",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-5319e0ae2b483949bf25b059a674dbc8/5319e0ae2b
483949bf25b059a674dbc8.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.1.0
inventory	VmInstanceInventory	See inventory .	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
name	String	The resource name.	4.1.0
description	String	The detailed description of the resource.	4.1.0
zoneUuid	String	The zone UUID.	4.1.0
clusterUuid	String	The cluster UUID.	4.1.0
imageUuid	String	The image UUID.	4.1.0
hostUuid	String	The host UUID.	4.1.0
lastHostUuid	String		4.1.0
instanceOfferingUuid	String	The instance offering UUID.	4.1.0
rootVolumeUuid	String	The root volume UUID.	4.1.0
platform	String		4.1.0
defaultL3NetworkUuid	String		4.1.0
type	String		4.1.0
hypervisorType	String		4.1.0
memorySize	Long		4.1.0
cpuNum	Integer		4.1.0
cpuSpeed	Long		4.1.0
allocatorStrategy	String		4.1.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
state	String		4.1.0
vmNics	List	See vmNics .	4.1.0
allVolumes	List	See allVolumes .	4.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
vmInstanceUuid	String	The VM UUID.	4.1.0
l3NetworkUuid	String	The L3 network UUID.	4.1.0
ip	String	The cluster UUID.	4.1.0
mac	String	The image UUID.	4.1.0
hypervisorType	String	The host UUID.	4.1.0
netmask	String		4.1.0
gateway	String	The instance offering UUID.	4.1.0
metaData	String	The root volume UUID	4.1.0
ipVersion	Integer	The cluster UUID.	4.1.0
deviceId	Integer	The image UUID.	4.1.0
type	String	The host UUID.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
usedIps	List	See usedIps .	4.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
ipRangeUuid	String	The IP range UUID.	4.1.0

Name	Type	Description	Starting Version
I3NetworkUuid	String	The L3 network UUID.	4.1.0
ipVersion	Integer	The IP version.	4.1.0
ip	String	The IP address.	4.1.0
netmask	String	The netmask.	4.1.0
gateway	String	The gateway.	4.1.0
usedFor	String		4.1.0
ipInLong	long		4.1.0
vmNicUuid	String	The VM NIC UUID.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
name	String	The resource name.	4.1.0
description	String	The detailed description of the resource.	4.1.0
primaryStorageUuid	String	The primary storage UUID.	4.1.0
vmInstanceUuid	String	The VM UUID.	4.1.0
diskOfferingUuid	String	The disk offering UUID.	4.1.0
rootImageUuid	String	The root volume image UUID.	4.1.0
installPath	String	The installation path of the volume on the primary storage.	4.1.0
type	String	The volume type.	4.1.0
format	String	The volume type.	4.1.0
size	Long	The volume size.	4.1.0
actualSize	Long	The actual size of the volume.	4.1.0

Name	Type	Description	Starting Version
deviceId	Integer		4.1.0
state	String	Indicates whether the disk is enabled.	4.1.0
status	String	The volume status.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
isShareable	Boolean	Indicates whether the volume is a shared volume.	4.1.0
volumeQos	String	The volume QoS, for example, total=1048576	4.1.0

SDK Sample

Java SDK

```
SetVmClockTrackAction action = new SetVmClockTrackAction();
action.uuid = "cc0a313462243900b6c843ff427b7f0e";
action.track = "guest";
action.syncAfterVMResume = true;
action.intervalInSeconds = 60.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVmClockTrackAction.Result res = action.call();
```

Python SDK

```
SetVmClockTrackAction action = SetVmClockTrackAction()
action.uuid = "cc0a313462243900b6c843ff427b7f0e"
action.track = "guest"
action.syncAfterVMResume = true
action.intervalInSeconds = 60.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetVmClockTrackAction.Result res = action.call()
```

5.1.1.74 SyncVmClock

API Requests

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncVmClock": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Samples

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncVmClock":{}}' http://localhost:8080/zstack/v1/vm-
instances/b9b970400c1f4a6dad1976be1c63f698/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.4.24
systemTags	List	body	Optional. The system tags.		4.4.24
userTags	List	body	Optional. The user tags.		4.4.24

API Response

If the API succeeded, an empty JSON structure `{}` is returned. If the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SyncVmClockAction action = new SyncVmClockAction();
action.uuid = "bbf94dc05840489cbf8f5b5d1d0984dc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SyncVmClockAction.Result res = action.call();
```

Python SDK

```
SyncVmClockAction action = SyncVmClockAction()
action.uuid = "0ce0a34f854d487281b32b8fd3608390"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SyncVmClockAction.Result res = action.call()
```

5.1.1.75 SetVmInstanceHaLevel

API Request

URLs

```
POST zstack/v1/vm-instances/{uuid}/ha-levels
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "level": "NeverStop"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"level":"NeverStop"}}' \
http://localhost:8080/zstack/v1/vm-
instances/76d39c6862b840a3aa4568d83db99022/ha-levels
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
level	String	body (contained in the params structure)	The HA level of the VM instance. Option: NeverStop: The VM instance will never be stopped.	NeverStop	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

If the API succeeded, an empty JSON structure `{}` is returned. If the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout"
  }
}
```



```
}
```

SDK Sample

Java SDK

```
SetVmInstanceHaLevelAction action = new SetVmInstanceHaLevelAction();
action.uuid = "76d39c6862b840a3aa4568d83db99022";
action.level = "NeverStop";
action.sessionId = "673a3db55e4a43739aa2b701462547f3";
SetVmInstanceHaLevelAction.Result res = action.call();
```

Python SDK

```
SetVmInstanceHaLevelAction action = SetVmInstanceHaLevelAction()
action.uuid = "76d39c6862b840a3aa4568d83db99022"
action.level = "NeverStop"
action.sessionId = "f631227267ef445a9d8066e163c6618a"
SetVmInstanceHaLevelAction.Result res = action.call()
```

5.1.1.76 GetVmInstanceHaLevel

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/ha-levels
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 92f80693e3d641c68c014d4f762c0b70" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/76d39c6862b840a3aa4568d83db99022/ha-levels
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		0.6
systemTags	List	query	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "level": "NeverStop"
}
```

Name	Type	Description	Starting Version
level	String	The HA level of the VM instance, including NeverStop and OnHostFailure.	0.6
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVmInstanceHaLevelAction action = new GetVmInstanceHaLevelAction();
action.uuid = "76d39c6862b840a3aa4568d83db99022";
action.sessionId = "ed55da0421704d2ca59ff0106cae94bb";
GetVmInstanceHaLevelAction.Result res = action.call();
```

Python SDK

```
GetVmInstanceHaLevelAction action = GetVmInstanceHaLevelAction()
action.uuid = "76d39c6862b840a3aa4568d83db99022"
action.sessionId = "559a84ded13d4e88a7fdb01f2dfd47f0"
GetVmInstanceHaLevelAction.Result res = action.call()
```

5.1.1.77 DeleteVmInstanceHaLevel

API Request

URLs

```
DELETE zstack/v1/instances/{uuid}/ha-levels
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 038c30608df54956bea7e06d6adf7ffe" \
-X DELETE http://localhost:8080/zstack/v1/vm-
instances/76d39c6862b840a3aa4568d83db99022/ha-levels?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVmInstanceHaLevelAction action = new DeleteVmInstanceHaLevelAction();
action.uuid = "76d39c6862b840a3aa4568d83db99022";
action.sessionId = "0cc42e2185664cd6a762ea527075e9f9";
DeleteVmInstanceHaLevelAction.Result res = action.call();
```

Python SDK

```
DeleteVmInstanceHaLevelAction action = DeleteVmInstanceHaLevelAction()
action.uuid = "76d39c6862b840a3aa4568d83db99022"
action.sessionId = "55fbd55cda2a45f3abbd540620846039"
```

```
DeleteVmInstanceHaLevelAction.Result res = action.call()
```

5.1.1.78 GetVmQga

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/qga
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 34fc90e40acb4b59b0051485dc625b34" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
ab76c455f44b4b1b8a33ecdde1a98eb3/qga
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "uuid": "889251004c244ec6aaafd2df09b8cfcdbd",
  "enable": true
}
```

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
enable	boolean		0.6
error	ErrorCode	The error code. If not null, the operation	0.6

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVmQgaAction action = new GetVmQgaAction();
action.uuid = "f2e1551d87d6495faa2bbf3059f060c6";
action.sessionId = "1759cb82bcb44dd9b06cac166513ea41";
GetVmQgaAction.Result res = action.call();
```

Python SDK

```
GetVmQgaAction action = GetVmQgaAction()
action.uuid = "d9772f9d072f4412954e52516111cc3c"
action.sessionId = "9f1efc92185649659a77f8de8ea5d886"
```

```
GetVmQgaAction.Result res = action.call()
```

5.1.1.79 SetVmQga

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmQga": {
    "enable": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmQga":{"enable":false}}' \
http://localhost:8080/zstack/v1/vm-
instances/8f37ceee285c3418b28247388508601a/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
enable	boolean	body (contained in the params structure)			0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVmQgaAction action = new SetVmQgaAction();
action.uuid = "771991c9b47f45a392bddeadba95ab2b";
action.enable = false;
action.sessionId = "6dc45ce48e8345f89c8487bb9a5180f8";
SetVmQgaAction.Result res = action.call();
```

Python SDK

```
SetVmQgaAction action = SetVmQgaAction()
action.uuid = "084bb6e8ecd9497fb261049cce04b116"
action.enable = false
action.sessionId = "5e78bf8076a84933928ee8d2ef04eca9"
SetVmQgaAction.Result res = action.call()
```

5.1.1.80 QueryGuestToolsState

API Request

URLs

```
GET zstack/v1/guesttools
```



```
GET zstack/v1/guesttools/state
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/guesttools
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/guesttools/state
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using the CLI command tool, entering **QueryGuestToolsState**, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{  
  "error": {  
    "code": "SYS.1001",  
    "description": "A message or a operation timeout",  
    "details": "Create VM on KVM timeout after 300s"  
  }  
}
```

SDK Sample

Java SDK

```
QueryGuestToolsStateAction action = new QueryGuestToolsStateAction();  
action.conditions = asList();  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
QueryGuestToolsStateAction.Result res = action.call();
```

Python SDK

```
QueryGuestToolsStateAction action = QueryGuestToolsStateAction()  
action.conditions = []  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryGuestToolsStateAction.Result res = action.call()
```

5.1.1.81 UpdateGuestToolsState

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/guesttools-state
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateGuestToolsState": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateGuestToolsState":{}}' \
http://localhost:8080/zstack/v1/vm-
instances/5222bedcc3333b848b4cfb67e14bcc2d/guesttools-state
```

Required Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vmInstanceUuid	String	url	The VM instance UUID		4.6.21
systemTags	List	body	Optional. The system tags.		4.6.21
userTags	List	body	Optional. The user UUIDs.		4.6.21

API Response

Response Sample

```
{
  "inventory": {
    "vmInstanceUuid": "321e85ca08b335e09f172041f7e710b5",
    "qgaState": "Running",
    "zwatchState": "Running",
    "version": "4.6.11",
    "platform": "Kylin",
    "osType": "Kylin"
  }
}
```

Name	Type		起始版本
success	boolean		4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.21
inventory	GuestToolsStateInventory	See inventory .	4.6.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.21
description	String	The brief description of the error.	4.6.21
details	String	The details about the error.	4.6.21
elaboration	String	The reserved field. Default value: null.	4.6.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.21

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.21

#inventory

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	4.6.21
version	String	The VM GuestTools version.	4.6.21
platform	String	The VM OS platform type.	4.6.21
osType	String	The VM OS type.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21
qgaState	GuestToolsQgaState	See qgaState .	4.6.21
zwatchState	GuestToolsZWatchState	See zwatchState .	4.6.21

#qgaState

Name	Type	Description	Starting Version
NotInstalled	GuestToolsQgaState	The QGA is not installed.	4.6.21
Running	GuestToolsQgaState	The QGA is running.	4.6.21
NotRunning	GuestToolsQgaState	The QGA is stopped.	4.6.21
NotUpgraded	GuestToolsQgaState	The QGA needs to be upgraded.	4.6.21

#zwatchState

Name	Type	Description	Starting Version
NotInstalled	GuestTools ZWatchState	The zwatch is not installed.	4.6.21
Running	GuestTools ZWatchState	The zwtach is running.	4.6.21
NotRunning	GuestTools ZWatchState	The zwatch is not running.	4.6.21

SDK Sample

Java SDK

```
UpdateGuestToolsStateAction action = new UpdateGuestToolsStateAction
();
action.vmInstanceUuid = "5222bedcc3333b848b4cfb67e14bcc2d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateGuestToolsStateAction.Result res = action.call();
```

Python SDK

```
UpdateGuestToolsStateAction action = UpdateGuestToolsStateAction()
action.vmInstanceUuid = "5222bedcc3333b848b4cfb67e14bcc2d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateGuestToolsStateAction.Result res = action.call()
```

5.1.1.82 UpdateVmNetworkConfig

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/update-nic-config
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVmNetworkConfig": {
    "vmNicUuids": [
      "afb48d4bfd193c6b9d46b866cb29a767"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVmNetworkConfig":{"vmNicUuids":
["afb48d4bfd193c6b9d46b866cb29a767"]}}' \
http://localhost:8080/zstack/v1/vm-
instances/1c8470e916873fe6ae0251c3f592a6c4/update-nic-config
```

Required Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vmInstance Uuid	String	url	The VM instance UUID		4.6.21
vmNicUuids	List	body (contained in the updateVmNetworkConfig structure).			4.6.21
systemTags	List	body	Optional. The system tags.		4.6.21
userTags	List	body	Optional. The user tags.		4.6.21

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
UpdateVmNetworkConfigAction action = new UpdateVmNetworkConfigAction
();
action.vmInstanceId = "1c8470e916873fe6ae0251c3f592a6c4";
action.vmNicUuids = asList("afb48d4bfd193c6b9d46b866cb29a767");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVmNetworkConfigAction.Result res = action.call();
```

Python SDK

```
UpdateVmNetworkConfigAction action = UpdateVmNetworkConfigAction()
action.vmInstanceId = "1c8470e916873fe6ae0251c3f592a6c4"
action.vmNicUuids = [afb48d4bfd193c6b9d46b866cb29a767]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVmNetworkConfigAction.Result res = action.call()
```

5.1.1.83 GetVmRDP

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/rdp
```

Headers

```
Authorization: OAuth the-session-uuid
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth c38710f23af942819cc2c431bd94407b" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/78494eb669424e97b6f18920a920adbf/rdp
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1
systemTags	List	query	Optional. The system tags.		2.1
userTags	List	query	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "enable": true
}
```

Name	Type	Description	Starting Version
enable	boolean	Whether the RDP switch is enabled for the VM instance. That is, whether the VM instance can be accessed through RDP.	2.1
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root	2.1

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

SDK Sample

Java SDK

```
GetVmRDPAction action = new GetVmRDPAction();
action.uuid = "2503d2eb486e43469fef0e4864fb6c90";
action.sessionId = "380901023c664283a2a3edc0c52817f2";
GetVmRDPAction.Result res = action.call();
```

Python SDK

```
GetVmRDPAction action = GetVmRDPAction()
action.uuid = "4cec955330e44ac980b99f20c811f1cc"
action.sessionId = "2971ac1171da458b964bf689032ba778"
GetVmRDPAction.Result res = action.call()
```

5.1.1.84 SetVmRDP

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmRDP": {
    "enable": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmRDP":{"enable":true}}' \
http://localhost:8080/zstack/v1/vm-instances/
f523cb5736b630acb643dda6d31be5a0/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.2
enable	boolean	body (contained in the setVmRDP structure)	Whether the RDP switch is enabled for the VM instance. That is, whether the VM instance can be accessed through RDP.		2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
SetVmRDPAction action = new SetVmRDPAction();
action.uuid = "e2889e09bb0a4f1b9f2757d8bd0c1fc6";
action.enable = true;
action.sessionId = "595b40e65a1f4755a68573ab9ef6802c";
SetVmRDPAction.Result res = action.call();
```

Python SDK

```
SetVmRDPAction action = SetVmRDPAction()
action.uuid = "dc71514a6e1a490b9985b1dcb4faaff11"
action.enable = true
action.sessionId = "aee17676e2604d9ab50a4b8907c31568"
SetVmRDPAction.Result res = action.call()
```

5.1.1.85 GetVmMonitorNumber

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/monitorNumber
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 536c3b51e70f441190204e645a3d2d76" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
deb35f3b8ebf4b7e9765726a9c8e3505/monitorNumber
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.2
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "monitorNumber": 2.0
}
```

Name	Type	Description	Starting Version
monitorNumber	Integer		2.2
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

SDK Sample

Java SDK

```
GetVmMonitorNumberAction action = new GetVmMonitorNumberAction();
action.uuid = "6415ca5909524c00b7b66c9662b45df1";
action.sessionId = "4bf39c422c2d4e01b5ab88da17096d0d";
GetVmMonitorNumberAction.Result res = action.call();
```

Python SDK

```
GetVmMonitorNumberAction action = GetVmMonitorNumberAction()
action.uuid = "dc6e40115e674ccab14d9425d0028428"
action.sessionId = "3f5d36676ca94b9183b567470a22ed19"
GetVmMonitorNumberAction.Result res = action.call()
```

5.1.1.86 SetVmMonitorNumber

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmMonitorNumber": {
    "monitorNumber": 2.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmMonitorNumber":{"monitorNumber":2.0}}' \
http://localhost:8080/zstack/v1/vm-instances/7cc2eec452593010bd2691f88385de7a/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.2
monitorNumber	Integer	body (contained in the setVmMonitorNumber structure)	The number of monitors.		2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVmMonitorNumberAction action = new SetVmMonitorNumberAction();
action.uuid = "eb57f91af28a48dcb6c56220a9b6d24";
action.monitorNumber = 2.0;
action.sessionId = "d8b870a03f97490fa6c39085cec24da7";
SetVmMonitorNumberAction.Result res = action.call();
```

Python SDK

```
SetVmMonitorNumberAction action = SetVmMonitorNumberAction()
action.uuid = "9a07d71b055e4da7a2f172e4cf7f337f"
action.monitorNumber = 2.0
action.sessionId = "56766234a9a54fe3b70c0e28b22fea5c"
```

```
SetVmMonitorNumberAction.Result res = action.call()
```

5.1.1.87 ChangeVmImage

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVmImage": {
    "imageUuid": "dbfd52c2f87c39cda8c8945fca8d6a5a"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeVmImage":
{"imageUuid":"dbfd52c2f87c39cda8c8945fca8d6a5a"}}' \
http://localhost:8080/zstack/v1/vm-instances/
af9e42b52dc836dfac3ee89b08c47488/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		2.2
imageUuid	String	body (contained in the	The image UUID.		2.2

Name	Type	Location	Description	Optional Value	Starting Version
		changeVmlmage structure)			
resourceUuid	String	body (contained in the changeVmlmage structure)	Optional. The resource UUID.		2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

**Note:**

- When you change the root volume of a VM instance in ZStack Cloud, you can specify the Ceph pool where the root volume is located by adding the **rootPoolName** option to **SystemTags**. The SystemTag is passed by using the **rootPoolName** parameter.
 - Format of the **rootPoolName** option: `ceph::rootPoolName::xxx`. Here, `xxx` is the name of the Ceph pool.
 - Example: `ceph::rootPoolName::pri-v-r-26e11ca6814d4e1ba504d845f7848db3`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "8753ddd9d41d3e1c81bca779096325e6",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "8f13ce3cefcc3b4f905140613c0790e9",
    "clusterUuid": "48574e91679f376f9443d75bd3deabd3",
    "imageUuid": "d20e62e8cab133498f1456c14e210644",
    "hostUuid": "1f74c3ba1d8a38afbc2c00b024b9df6f",
    "lastHostUuid": "9220f51b605a308ab2d540541261d452",
    "instanceOfferingUuid": "d1fe019ddd65376491f5b992dbe52f9d",
    "rootVolumeUuid": "d4131773654237c997b00fad3102d30d",
    "platform": "Linux",
    "defaultL3NetworkUuid": "f12a1735a9f33a86a16d9487351832ac",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,

```



```

"cpuNum": 1.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM",
"state": "Running",
"vmNics": [
  {
    "uuid": "6364c6ddbacc03148b680f477761fd87a",
    "vmInstanceUuid": "8753ddd9d41d3e1c81bca779096325e6",
    "usedIpUuid": "996010937c043cee98258e261191d3e4",
    "l3NetworkUuid": "f12a1735a9f33a86a16d9487351832ac",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"allVolumes": [
  {
    "uuid": "d4131773654237c997b00fad3102d30d",
    "name": "Root-Volume-For-VM-8753ddd9d41d3e1c81bca779096325e6",
    "primaryStorageUuid": "080271df17b53de2857ab4728bafb21d",
    "vmInstanceUuid": "8753ddd9d41d3e1c81bca779096325e6",
    "diskOfferingUuid": "0fa1ba3b260633ecaa74111268b22d11",
    "rootImageUuid": "d20e62e8cab133498f1456c14e210644",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-d4131773654237c997b00fad3102d30d/d4131773654237c997b00fad3102d30d.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventory	VmInstanceInventory	See inventory .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
zoneUuid	String	The zone UUID.	2.2
clusterUuid	String	The cluster UUID.	2.2
imageUuid	String	The image UUID.	2.2
hostUuid	String	The host UUID.	2.2
lastHostUuid	String		2.2
instanceOfferingUuid	String	The instance offering UUID.	2.2

Name	Type	Description	Starting Version
rootVolumeUuid	String	The root volume UUID.	2.2
platform	String		2.2
defaultL3NetworkUuid	String		2.2
type	String		2.2
hypervisorType	String		2.2
memorySize	Long		2.2
cpuNum	Integer		2.2
cpuSpeed	Long		2.2
allocatorStrategy	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
state	String		2.2
vmNics	List	See vmNics .	2.2
allVolumes	List	See allVolumes .	2.2

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
vmInstanceUuid	String	The VM instance UUID.	2.2
l3NetworkUuid	String	The L3 network UUID.	2.2
ip	String		2.2
mac	String		2.2
netmask	String		2.2
gateway	String		2.2
metaData	String		2.2
deviceId	Integer		2.2
createDate	Timestamp	The creation date.	2.2

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	2.2

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
primaryStorageUuid	String	The primary storage UUID.	2.2
vmInstanceUuid	String	The VM instance UUID.	2.2
diskOfferingUuid	String	The disk offering UUID.	2.2
rootImageUuid	String		2.2
installPath	String		2.2
type	String		2.2
format	String		2.2
size	Long		2.2
actualSize	Long		2.2
deviceId	Integer		2.2
state	String		2.2
status	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
isShareable	Boolean		2.2

SDK Sample

Java SDK

```
ChangeVmImageAction action = new ChangeVmImageAction();
```

```
action.vmInstanceUuid = "af9e42b52dc836dfac3ee89b08c47488";
action.imageUuid = "dbfd52c2f87c39cda8c8945fca8d6a5a";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeVmImageAction.Result res = action.call();
```

Python SDK

```
ChangeVmImageAction action = ChangeVmImageAction()
action.vmInstanceUuid = "af9e42b52dc836dfac3ee89b08c47488"
action.imageUuid = "dbfd52c2f87c39cda8c8945fca8d6a5a"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeVmImageAction.Result res = action.call()
```

5.1.1.88 GetImageCandidatesForVmToChange

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceUuid}/image-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/54f0aeb7a2536978aafb9eb7a95003e/image-candidates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	Optional. The VM instance UUID.		2.2
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2

API Response

Sample Response

```
{
```

```

"inventories": [
  {
    "uuid": "2354990ad5ee343eba48bb07851a1423",
    "name": "TinyLinux",
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "platform": "Linux",
    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0.0,
        "imageUuid": "2354990ad5ee343eba48bb07851a1423",
        "backupStorageUuid": "a03a78dbdab23444bb109d67a5059389",
        "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe
694b182ebffd",
        "status": "Ready"
      }
    ]
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventories	List	See inventories .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
state	String		2.2
status	String		2.2
size	Long		2.2
actualSize	Long		2.2
md5Sum	String		2.2
url	String		2.2
mediaType	String		2.2
guestOsType	String		2.2
type	String		2.2
platform	String		2.2
format	String		2.2
system	Boolean		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
backupStorageRefs	List	See backupStorageRefs .	2.2

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	2.2
backupStorageUuid	String	The backup storage UUID.	2.2
installPath	String		2.2
exportUrl	String		2.2
exportMd5Sum	String		2.2
status	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2

SDK Sample

Java SDK

```
GetImageCandidatesForVmToChangeAction action = new GetImageCa
ndidatesForVmToChangeAction();
action.vmInstanceUuid = "54f0aeb7a2536978aafb9eb7a95003e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetImageCandidatesForVmToChangeAction.Result res = action.call();
```

Python SDK

```
GetImageCandidatesForVmToChangeAction action = GetImageCandidatesFo
rVmToChangeAction()
action.vmInstanceUuid = "54f0aeb7a2536978aafb9eb7a95003e"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetImageCandidatesForVmToChangeAction.Result res = action.call()
```

5.1.1.89 UpdateVmNicMac

API Request

URLs

```
PUT zstack/v1/vm-instances/nics/{vmNicUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVmNicMac": {
```



```

    "mac": "fa:4c:ee:9a:76:00"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVmNicMac":{"mac":"fa:4c:ee:9a:76:00"}}' \
http://localhost:8080/zstack/v1/vm-instances/nics/
c6a34d551b36322ab83b87f7eab6bd41/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID.		2.3
mac	String	body (contained in the updateVmNicMac structure)	The MAC address.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

```
}
```

SDK Sample

Java SDK

```
UpdateVmNicMacAction action = new UpdateVmNicMacAction();
action.vmNicUuid = "c6a34d551b36322ab83b87f7eab6bd41";
action.mac = "fa:4c:ee:9a:76:00";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVmNicMacAction.Result res = action.call();
```

Python SDK

```
UpdateVmNicMacAction action = UpdateVmNicMacAction()
action.vmNicUuid = "c6a34d551b36322ab83b87f7eab6bd41"
action.mac = "fa:4c:ee:9a:76:00"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVmNicMacAction.Result res = action.call()
```

5.1.1.90 SetVmCleanTraffic

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmCleanTraffic": {
    "enable": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"setVmCleanTraffic":{"enable":true}}'
http://localhost:8080/zstack/v1/vm-instances/
db90c27c8cc743e39ea7fa97a91617ba/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
enable	boolean	body (contained in the setVmCleanTraffic structure)	Whether to enable clean-traffic for the VM instance.	- enable - disable	3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVmCleanTrafficAction action = new SetVmCleanTrafficAction();
action.uuid = "1e62596491bb4a708e737f1ec626a08e";
action.enable = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVmCleanTrafficAction.Result res = action.call();
```

Python SDK

```
SetVmCleanTrafficAction action = SetVmCleanTrafficAction()
action.uuid = "69294c4a4e654535bbfd7fd92f4b52e9"
```

```

action.enable = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetVmCleanTrafficAction.Result res = action.call()

```

5.1.1.91 CreateVmCdRom

API Request

URLs

```
POST zstack/v1/vm-instances/cdroms
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "name": "cd-1",
    "vmInstanceUuid": "157321b6fb043d8a923aca66e6388086",
    "description": "this is a cd-rom"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"cd-1","vmInstanceUuid":"157321b6fb043d8a923aca66e6388086","description":
is a cd-rom"}}' http://localhost:8080/zstack/v1/vm-instances/cdroms

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		3.3.0

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	body (contained in the params structure)	The VM instance UUID.		3.3.0
isoUuid	String	body (contained in the params structure)	Optional. The ISO image UUID.		3.3.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.3.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.3.0
systemTags	List	body	Optional. The system tags.		3.3.0
userTags	List	body	Optional. The user tags.		3.3.0

API Response

Sample Response

```
{
  "inventory": {
    "vmInstanceUuid": "47286977f0c530168fdbb1dfbfc167e8",
    "deviceId": 0.0,
    "isoUuid": "1712d13459ec3637be1020936e76e5a3",
    "name": "cd-1",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.3.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	VmCdRomInventory	See inventory .	3.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.3.0
description	String	The brief description of the error.	3.3.0
details	String	The details about the error.	3.3.0
elaboration	String	The reserved field. Default value: null.	3.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.3.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.3.0
vmInstanceUuid	String	The VM instance UUID.	3.3.0
deviceId	Integer	The CD-ROM device ID.	3.3.0
isoUuid	String	The ISO image UUID.	3.3.0

Name	Type	Description	Starting Version
isoInstallPath	String	The path to install the ISO image.	3.3.0
name	String	The resource name.	3.3.0
description	String	The detailed description of the resource.	3.3.0
createDate	Timestamp	The creation date.	3.3.0
lastOpDate	Timestamp	The last operation date.	3.3.0

SDK Sample

Java SDK

```
CreateVmCdRomAction action = new CreateVmCdRomAction();
action.name = "cd-1";
action.vmInstanceUuid = "157321b6fb043d8a923aca66e6388086";
action.description = "this is a cd-rom";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmCdRomAction.Result res = action.call();
```

Python SDK

```
CreateVmCdRomAction action = CreateVmCdRomAction()
action.name = "cd-1"
action.vmInstanceUuid = "157321b6fb043d8a923aca66e6388086"
action.description = "this is a cd-rom"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmCdRomAction.Result res = action.call()
```

5.1.1.92 DeleteVmCdRom

API Request

URLs

```
DELETE zstack/v1/vm-instances/cdroms/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/vm-instances/
cdroms/90fc4f32b38732e2888c9cb5c4da5d8d
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.3.0
deleteMode	String	body	Optional. The delete mode.		3.3.0
systemTags	List	body	Optional. The system tags.		3.3.0
userTags	List	body	Optional. The user tags.		3.3.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVmCdRomAction action = new DeleteVmCdRomAction();
action.uuid = "90fc4f32b38732e2888c9cb5c4da5d8d";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVmCdRomAction.Result res = action.call();
```

Python SDK

```
DeleteVmCdRomAction action = DeleteVmCdRomAction()
action.uuid = "90fc4f32b38732e2888c9cb5c4da5d8d"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
DeleteVmCdRomAction.Result res = action.call()
```

5.1.1.93 UpdateVmCdRom

API Request

URLs

```
PUT zstack/v1/vm-instances/cdroms/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVmCdRom": {
    "name": "cd-2"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVmCdRom":{"name":"cd-2"}}'
http://localhost:8080/zstack/v1/vm-instances/
cdroms/407c8e5cee4b3430bbb9f0f4d4c8a422/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.3.0
description	String	body (contained in the updateVmCd	Optional. The detailed description of the resource.		3.3.0

Name	Type	Location	Description	Optional Value	Starting Version
		Rom structure)			
name	String	body (contained in the updateVmCdRom structure)	Optional. The resource name.		3.3.0
systemTags	List	body	Optional. The system tags.		3.3.0
userTags	List	body	Optional. The user tags.		3.3.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "257369b2f7e83256940adce2a6279187",
    "deviceId": 0.0,
    "isoUuid": "5ffbf20fb5e5342f91db1416740cf578",
    "name": "cd-1",
    "description": "desc",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.3.0
inventory	VmCdRomInventory	See inventory .	3.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	3.3.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.3.0
details	String	The details about the error.	3.3.0
elaboration	String	The reserved field. Default value: null.	3.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.3.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.3.0
vmInstanceId	String	The VM instance UUID.	3.3.0
deviceId	Integer	The CD-ROM device ID.	3.3.0
isoUuid	String	The ISO image UUID.	3.3.0
isoInstallPath	String	The path to install the ISO image.	3.3.0
name	String	The resource name.	3.3.0
description	String	The detailed description of the resource.	3.3.0
createDate	Timestamp	The creation date.	3.3.0
lastOpDate	Timestamp	The last operation date.	3.3.0

SDK Sample

Java SDK

```
UpdateVmCdRomAction action = new UpdateVmCdRomAction();
action.uuid = "407c8e5cee4b3430bbb9f0f4d4c8a422";
action.name = "cd-2";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVmCdRomAction.Result res = action.call();
```

Python SDK

```
UpdateVmCdRomAction action = UpdateVmCdRomAction()
action.uuid = "407c8e5cee4b3430bbb9f0f4d4c8a422"
action.name = "cd-2"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVmCdRomAction.Result res = action.call()
```

5.1.1.94 SetVmInstanceDefaultCdRom

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/cdroms/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmInstanceDefaultCdRom": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmInstanceDefaultCdRom": {}' http://localhost:8080/zstack/v1/vm-
```

```
instances/d447a8ba0a7739ebb9ea4328740cb6df/
cdroms/65a54c4273433d74970e8bac4c406cd8/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.3.0
vmInstanceUuid	String	url	The VM instance UUID.		3.3.0
systemTags	List	body	Optional. The system tags.		3.3.0
userTags	List	body	Optional. The user tags.		3.3.0

API Response

Sample Response

```
{
  "inventory": {
    "vmInstanceUuid": "ec0fdf7fd86f39e89510b3102ad1c66e",
    "deviceId": 0.0,
    "isoUuid": "57adfd535d05345895007787f74d11a0",
    "name": "cd-1",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.3.0
inventory	VmCdRomInventory	See inventory .	3.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.3.0
description	String	The brief description of the error.	3.3.0
details	String	The details about the error.	3.3.0
elaboration	String	The reserved field. Default value: null.	3.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.3.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.3.0
vmInstanceUuid	String	The VM instance UUID.	3.3.0
deviceId	Integer	The CD-ROM device ID.	3.3.0
isoUuid	String	The ISO image UUID.	3.3.0
isoInstallPath	String	The path to install the ISO image.	3.3.0
name	String	The resource name.	3.3.0
description	String	The detailed description of the resource.	3.3.0
createDate	Timestamp	The creation date.	3.3.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.3.0

SDK Sample

Java SDK

```
SetVmInstanceDefaultCdRomAction action = new SetVmInstanceDefault
CdRomAction();
action.uuid = "65a54c4273433d74970e8bac4c406cd8";
action.vmInstanceUuid = "d447a8ba0a7739ebb9ea4328740cb6df";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVmInstanceDefaultCdRomAction.Result res = action.call();
```

Python SDK

```
SetVmInstanceDefaultCdRomAction action = SetVmInstanceDefault
CdRomAction()
action.uuid = "65a54c4273433d74970e8bac4c406cd8"
action.vmInstanceUuid = "d447a8ba0a7739ebb9ea4328740cb6df"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetVmInstanceDefaultCdRomAction.Result res = action.call()
```

5.1.1.95 QueryVmCdRom

API Request

URLs

```
GET zstack/v1/vm-instances/cdroms
GET zstack/v1/vm-instances/cdroms/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/cdroms?q=name=cd-1
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/cdroms/
cd0360ac748b3983897eb41913e97a6b
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVmCdRom**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "68d090e26a0539f9b1b5d37229ee97de",
      "deviceId": 0.0,
      "isoUuid": "539acd1389523fb9ab243096d9842a05",
      "name": "cd-1",
      "description": "desc",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.3.0
inventories	List	See inventories .	3.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.3.0
description	String	The brief description of the error.	3.3.0
details	String	The details about the error.	3.3.0
elaboration	String	The reserved field. Default value: null.	3.3.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.3.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.3.0
vmInstanceUuid	String	The VM instance UUID.	3.3.0
deviceId	Integer	The CD-ROM device ID.	3.3.0
isoUuid	String	The ISO image UUID.	3.3.0
isoInstallPath	String	The path to install the ISO image.	3.3.0
name	String	The resource name.	3.3.0
description	String	The detailed description of the resource.	3.3.0
createDate	Timestamp	The creation date.	3.3.0
lastOpDate	Timestamp	The last operation date.	3.3.0

SDK Sample

Java SDK

```
QueryVmCdRomAction action = new QueryVmCdRomAction();
action.conditions = asList("name=cd-1");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVmCdRomAction.Result res = action.call();
```

Python SDK

```
QueryVmCdRomAction action = QueryVmCdRomAction()
action.conditions = ["name=cd-1"]
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVmCdRomAction.Result res = action.call()
```

5.1.1.96 UpdateVmPriority

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVmPriority": {
    "priority": "High"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVmPriority":{"priority":"High"}}'
http://localhost:8080/zstack/v1/vm-instances/
f308c452113832df898fb62ea87b2afc/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
priority	String	body (contained in the updateVmPr			3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
		riority structure)			
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UpdateVmPriorityAction action = new UpdateVmPriorityAction();
action.uuid = "f308c452113832df898fb62ea87b2afc";
action.priority = "High";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVmPriorityAction.Result res = action.call();
```

Python SDK

```
UpdateVmPriorityAction action = UpdateVmPriorityAction()
action.uuid = "f308c452113832df898fb62ea87b2afc"
action.priority = "High"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateVmPriorityAction.Result res = action.call()
```

5.1.1.97 SetVmQxlMemory

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmQxlMemory": {
    "ram": 65536.0,
    "vram": 32768.0,
    "vgamem": 16384.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmQxlMemory":
{"ram":65536.0,"vram":32768.0,"vgamem":16384.0}}'
http://localhost:8080/zstack/v1/vm-instances/
cc590b2129c437a487311b0f9a8a0dbc/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		3.7.0
ram	Integer	body (contained	Optional. The Random		3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
		in the setVmQxlMemory structure)	Access Memory (RAM) size. Default value: 65536.		
vram	Integer	body (contained in the setVmQxlMemory structure)	Optional. The video RAM (VRAM) size. Default value: 32768.		3.7.0
vgamem	Integer	body (contained in the setVmQxlMemory structure)	Optional. The Video Graphics Array (VGA) memory size. Default value: 16384.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

**Note:**

- When you create a VM instance in ZStack Cloud, you can set the QXL memory size by adding the **qxlMemory** option to **SystemTags**. The SystemTag is passed by using the **qxlMemory** parameter.
 - Format of the **qxlMemory** option: `qxlMemory::ram::vram::vgamem`
 - Example: `qxlMemory::65536::32768::16384`

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
  }
}
```

```

    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```

SetVmQxlMemoryAction action = new SetVmQxlMemoryAction();
action.uuid = "cc590b2129c437a487311b0f9a8a0dbc";
action.ram = 65536.0;
action.vram = 32768.0;
action.vgamem = 16384.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVmQxlMemoryAction.Result res = action.call();

```

Python SDK

```

SetVmQxlMemoryAction action = SetVmQxlMemoryAction()
action.uuid = "cc590b2129c437a487311b0f9a8a0dbc"
action.ram = 65536.0
action.vram = 32768.0
action.vgamem = 16384.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetVmQxlMemoryAction.Result res = action.call()

```

5.1.1.98 SetVmSoundType

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "setVmSoundType": {
    "soundType": "ac97"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmSoundType":{"soundType":"ac97"}}' http://
localhost:8080/zstack/v1/vm-
instances/0ae1191601f430d88e1707716d24ff39/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM instance UUID		3.7.0
soundType	String	body (contained in the setVmSoundType structure)	The virtual sound card type. Default type: ICH6.	- ac97 - ich6	3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

**Note:**

- When you create a VM instance in ZStack Cloud, you can set the virtual sound card type by adding the **soundType** option to **SystemTags**. The SystemTag is passed by using the **soundType** parameter.
 - Format of the **soundType** option: `soundType::type`
 - Example: `soundType::ac97`
 - Note: The system compatibility varies depending on different Windows versions. Windows XP only supports the AC97 driver. In Windows 10, ICH6 is driver-free. Windows 7 supports both AC97 and ICH6 drivers.

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVmSoundTypeAction action = new SetVmSoundTypeAction();
action.uuid = "0ae1191601f430d88e1707716d24ff39";
action.soundType = "ac97";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVmSoundTypeAction.Result res = action.call();
```

Python SDK

```
SetVmSoundTypeAction action = SetVmSoundTypeAction()
action.uuid = "0ae1191601f430d88e1707716d24ff39"
action.soundType = "ac97"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetVmSoundTypeAction.Result res = action.call()
```

5.1.1.99 GetSpiceCertificates

API Request

URLs

```
GET zstack/v1/spice/certificates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/spice/certificates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		3.7.0
userTags	List	query	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "certificateStr": "-----BEGIN CERTIFICATE-----\nMIIDVTCCAj2gAwIBAgI
JALGiHgRCxwkwMA0GCSqGSIb3DQEBCwUAEEExCzAJBgNV\nnBAYTAKNOMREwDwYDVQQ
HDAhTaGFuZ2hhaTEPMA0GA1UECgwGWN0YWNrMQ4wDAYD\nnVQQDDAVteSBDQTAEFw0
xOTA5MjQwNjMxMzBaFw0yOTA5MjEwNjMxMzBaMEExCzAJ\nnBgNVBAYTAKNOMREwDwY
DVQQHDAhTaGFuZ2hhaTEPMA0GA1UECgwGWN0YWNrMQ4w\nnDAYDVQQDDAVteSBDQTC
CASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEBALQq\nnHgcz7xK7zQ+zPNrzR3q1J
JHkQ/OPF+DH5gheGlfWfrWaGtAwVX9w0vfKDHcJ0BB\nndMQ4m1r20X0yONVXNmL
Unwq5VMdieqy0/1r41cHauqUTP6MkJ5/yD7ipfZP0r7sB\nngFAUIwaSdZk4hwnPou2
ah4Uk/9yd0thBHKYCYZoVldLyPIe7aUHmkdkRY+MMdzqj\nnGnspV1K7ux8xP3zG7CU
G9Ns64rrjGNLRu81IJTYaJSigZ1ykZu1eYsUcGHB2QDcE\nn4d9fw/8YaRVJ0sBs
ABEzj9Qvi81i6VdTCGg2oFjBrSgcF7tNVQDufZLgXw3r\nlIsE\nn+1+pwh5CgcviR
cNTue0CAwEAAANQME4wHQYDVR00BBYEFMNx0BYaStgcpq1s30tW\nnmAwj lqXaM
B8GA1UdIwQYMBaAFMNx0BYaStgcpq1s30tWmAwj lqXaMAwGA1UdEwQF\nnMAMBAf8wD
QYJKoZIhvcNAQELBQADggEBAAXDDz08LDwI31sCr2K2t2P3n/hkxh0w\nnnycRxKho9
DFTnKSmMlusSd1AY/SjW08+6dSi4wzmKJ/Zr0Ce0BYhbDCFxG/OK01K\nnSfuR+
ggZ0Ax8gB58Zk51KUxyYV3HKORPftIh4nFO+mFUMXDuttuh12L7kbSQ6U3v\nnL0uFg/
59PnYe+aU+R/K1xXyZGViZJbgDqPdSCZYug0IRupu9j2Sces3XcX2TMCGR\nnxPo2ZzBrO
s3rJCK2nx16tHS5Zr5VP7zdn1YCS1/0HYUHRpi3HJPZAUr6dzDuK0IU\nnPb0ufTldT
6U0gJTof6TPMVl8dZATLJqMrjPtA0e3Pt0Ko8TPdj tQ15I\nu003d\n-----END
CERTIFICATE-----"
}
```

Name	Type	Description	Starting Version
certificateStr	String	The SPICE CA certificate.	3.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	3.7.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

SDK Sample

Java SDK

```
GetSpiceCertificatesAction action = new GetSpiceCertificatesAction();  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
GetSpiceCertificatesAction.Result res = action.call();
```

Python SDK

```
GetSpiceCertificatesAction action = GetSpiceCertificatesAction()  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetSpiceCertificatesAction.Result res = action.call()
```

5.1.1.100 AttachGuestToolsIsoToVm

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "attachGuestToolsIsoToVm": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"attachGuestToolsIsoToVm":{}}'
http://localhost:8080/zstack/v1/vm-instances/
f58d939e32073aa49acc4897bf81ae45/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

**Note:**

- After you attach the GuestTools to a VM instance in ZStack Cloud, the cloud records the GuestTools version. Note that you can add the **GuestTools** option to **SystemTags**.
 - Format of the **GuestTools** option: `GuestTools::TOOLS_VERSION`. Here, the initial value of `TOOLS_VERSION` is 1.0.0. This value will change as the version of GuestTools is upgraded.
 - Example: `GuestTools::1.0.0`
 - The cloud records the version of the GuestTools ISO installed on a host, compares the version with that in the `/opt/zstack-dvd` directory of the management node, and then decides whether to upgrade the GuestTools ISO.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AttachGuestToolsIsoToVmAction action = new AttachGuestToolsIsoToVmAction();
action.uuid = "f58d939e32073aa49acc4897bf81ae45";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachGuestToolsIsoToVmAction.Result res = action.call();
```

Python SDK

```
AttachGuestToolsIsoToVmAction action = AttachGuestToolsIsoToVmAction()
action.uuid = "f58d939e32073aa49acc4897bf81ae45"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachGuestToolsIsoToVmAction.Result res = action.call()
```

5.1.1.101 GetLatestGuestToolsForVm

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/latest-guest-tools
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
f7be56d67fb731ac9e201c69428c6a69/latest-guest-tools
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
systemTags	List	query	Optional. The system tags.		3.7.0
userTags	List	query	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "281ed8f30eff42c4a8d788384b782977",
    "managementNodeUuid": "9fbb4361b1e2466f933558d45746bb59",
    "architecture": "x86_64",
    "hypervisorType": "kvm",
    "version": "1.0.0",
    "createDate": "Oct 9, 2019 7:37:57 PM",
    "lastOpDate": "Oct 9, 2019 7:37:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean	Whether the operation succeeds.	3.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	GuestToolsInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
management NodeUuid	String	The management node UUID.	3.7.0
architecture	String	The architecture.	3.7.0
hypervisorType	String	The hypervisor type.	3.7.0
version	String	The version.	3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

SDK Sample

Java SDK

```
GetLatestGuestToolsForVmAction action = new GetLatestGuestToolsForVmAction();
action.uuid = "f7be56d67fb731ac9e201c69428c6a69";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetLatestGuestToolsForVmAction.Result res = action.call();
```

Python SDK

```
GetLatestGuestToolsForVmAction action = GetLatestGuestToolsForVmAction()
action.uuid = "f7be56d67fb731ac9e201c69428c6a69"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetLatestGuestToolsForVmAction.Result res = action.call()
```

5.1.1.102 GetVmGuestToolsInfo

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/guest-tools-infos
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/5ecc83bf3f5033b9b78b4f9406c01f8f/guest-tools-infos
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
systemTags	List	query	Optional. The system tags.		3.7.0
userTags	List	query	Optional. The user tags.		3.7.0



Note:

- ZStack Cloud records the version of the GuestTools ISO installed in the VM instance, compares the ISO version with that of the host, and then decides whether to upgrade the GuestTools ISO. Note that you can add the **GuestTools** option to **SystemTags**.
 - Format of the **GuestTools** option: `GuestTools::TOOLS_VERSION`. Here, the initial value of `TOOLS_VERSION` is 1.0.0. This value will change as the version of GuestTools is upgraded.
 - Example: `GuestTools::1.0.0`

- Note: This API is used to obtain the version and running status of the GuestTools installed in the VM instance. If the requested information is returned but the VM instance does not have a GuestTools tag, then a GuestTools tag will be created. If the requested information is returned but the returned GuestTools information is different from the current GuestTools tag value of the VM instance, then the tag will be updated.

API Response

Sample Response

```
{
  "version": "1.0.0",
  "status": "Running"
}
```

Name	Type	Description	Starting Version
version	String	The version of the GuestTools.	3.7.0
status	String	The status of the GuestTools.	3.7.0
features	Map	The features that GuestTools supports and the status of the features.	4.2.0
success	boolean	Whether the operation succeeds.	3.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

SDK Sample

Java SDK

```
GetVmGuestToolsInfoAction action = new GetVmGuestToolsInfoAction();
action.uuid = "5ecc83bf3f5033b9b78b4f9406c01f8f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVmGuestToolsInfoAction.Result res = action.call();
```

Python SDK

```
GetVmGuestToolsInfoAction action = GetVmGuestToolsInfoAction()
action.uuid = "5ecc83bf3f5033b9b78b4f9406c01f8f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetVmGuestToolsInfoAction.Result res = action.call()
```

5.1.1.103 GetVmInstanceFirstBootDevice

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/first-boot-device
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/50d8c8ed7d4737fd99a2e323cefeac81/first-boot-device
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
systemTags	List	query	Optional. The system tags.		3.7.0
userTags	List	query	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "firstBootDevice": "CdRom"
}
```

Name	Type	Description	Starting Version
firstBootDevice	String	The first boot device of the VM instance.	3.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.7.0

Name	Type	Description	Starting Version
		more information, see error .	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

SDK Sample

Java SDK

```
GetVmInstanceFirstBootDeviceAction action = new GetVmInstanceFirstBo
otDeviceAction();
action.uuid = "50d8c8ed7d4737fd99a2e323cefeac81";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVmInstanceFirstBootDeviceAction.Result res = action.call();
```

Python SDK

```
GetVmInstanceFirstBootDeviceAction action = GetVmInstanceFirstBo
otDeviceAction()
action.uuid = "50d8c8ed7d4737fd99a2e323cefeac81"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetVmInstanceFirstBootDeviceAction.Result res = action.call()
```

5.1.1.104 UpdateVmNicDriver

API Request

URLs

```
PUT zstack/vm-instances/{vmInstanceId}/actions?vmNicUuid={vmNicUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVmNicDriver": {
    "vmNicUuid": "1954794b830e32edbcf17f36344bbd14",
    "driverType": "e1000"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVmNicDriver":
{"vmNicUuid":"1954794b830e32edbcf17f36344bbd14","driverType":"e1000"}}'
http://localhost:8080/zstack/v1/vm-instances/
ca775a57e8d73a3ca85f490b53647b80/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceId	String	url	The VM instance UUID.		3.9.0
vmNicUuid	String	url	The VM NIC UUID.		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
driverType	String	body (contained in the params structure)	The type of the VM NIC driver.	- virtio - e1000 - rtl8139	3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b6af955c36b23be693fca2db0df03737",
    "vmInstanceUuid": "ed3f3ea119883726b1a97ec3cc4b1583",
    "usedIpUuid": "78b119bae906373d825fa7e68faf6a0b",
    "l3NetworkUuid": "307365f47f933bf09ff951cb67b52c5b",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "driverType": "e1000",
    "deviceId": 0.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventory	VmNicInventory	See inventory .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	3.9.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
vmInstanceUuid	String	The VM instance UUID.	3.9.0
l3NetworkUuid	String	The L3 network UUID.	3.9.0
ip	String		3.9.0
mac	String		3.9.0
netmask	String		3.9.0
gateway	String		3.9.0
metaData	String		3.9.0
ipVersion	Integer	The IP version.	3.9.0
deviceId	Integer		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

Name	Type	Description	Starting Version
usedIps	List	See usedIps .	3.9.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
ipRangeUuid	String	The IP range UUID.	3.9.0
l3NetworkUuid	String	The L3 network UUID.	3.9.0
ipVersion	Integer	The IP version.	3.9.0
ip	String	The IP address.	3.9.0
netmask	String	The netmask.	3.9.0
gateway	String	The gateway.	3.9.0
usedFor	String		3.9.0
ipInLong	long		3.9.0
vmNicUuid	String	The VM NIC UUID.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
UpdateVmNicDriverAction action = new UpdateVmNicDriverAction();
action.vmInstanceUuid = "ca775a57e8d73a3ca85f490b53647b80";
action.vmNicUuid = "1954794b830e32edbcf17f36344bbd14";
action.driverType = "e1000";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVmNicDriverAction.Result res = action.call();
```

Python SDK

```
UpdateVmNicDriverAction action = UpdateVmNicDriverAction()
action.vmInstanceUuid = "ca775a57e8d73a3ca85f490b53647b80"
action.vmNicUuid = "1954794b830e32edbcf17f36344bbd14"
action.driverType = "e1000"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
UpdateVmNicDriverAction.Result res = action.call()
```

5.1.1.105 GetVmDeviceAddress

API Request

URLs

```
GET zstack/v1/vm-instances/devices
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/devices?
uuid=a761ac08ca483af4a81d9ed3d9930ef4&resourceTypes=VolumeVO
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	query	The VM UUID.		3.10.0
resourceTypes	List	query	The resource type.	VolumeVO	3.10.0
systemTags	List	query	Optional. The system tags.		3.10.0
userTags	List	query	Optional. The user tags.		3.10.0

API Response

Sample Response

```
{
  "addresses": {
    "VolumeVO": [
      {
        "address": "0000:01:00:0",
        "addressType": "pci",
        "deviceType": "disk",
        "resourceType": "VolumeVO"
      }
    ]
  }
}
```

}

Name	Type	Description	Starting Version
addresses	Map	The device addresses.	3.10.0
success	boolean		3.10.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.10.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.10.0
description	String	The brief description of the error.	3.10.0
details	String	The details about the error.	3.10.0
elaboration	String	The reserved field. Default value: null.	3.10.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.10.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.10.0

SDK Sample

Java SDK

```
GetVmDeviceAddressAction action = new GetVmDeviceAddressAction();
action.uuid = "a761ac08ca483af4a81d9ed3d9930ef4";
```

```
action.resourceTypes = asList("VolumeV0");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVmDeviceAddressAction.Result res = action.call();
```

Python SDK

```
GetVmDeviceAddressAction action = GetVmDeviceAddressAction()
action.uuid = "a761ac08ca483af4a81d9ed3d9930ef4"
action.resourceTypes = [VolumeV0]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVmDeviceAddressAction.Result res = action.call()
```

5.1.1.106 GetVmsCapabilities

API Request

URLs

```
POST zstack/v1/vm-instances/capabilities
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmUuids": [
      "86db798b3a0530b187380da6c9c58190"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"vmUuids":
["86db798b3a0530b187380da6c9c58190"]}}' http://localhost:8080/zstack/
v1/vm-instances/capabilities
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmUuids	String	body(contained in the params structure)	The UUID of the VM instance to be queried.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "vmsCaps": {
    "68e8ed0735333faab95816b3e8596cea": {
      "supportLiveMigration": true,
      "supportVolumeMigration": true,
      "supportReimage": true,
      "supportMemorySnapshot": false
    }
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
vmsCaps	Map	For more information, see vmsCaps .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	4.0.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#vmsCaps

Name	Type	Description	Starting Version
supportLiveMigration	boolean		4.0.0
supportVolumeMigration	boolean		4.0.0
supportReimage	boolean		4.0.0
supportMemorySnapshot	boolean		4.0.0

SDK Sample

Java SDK

```
GetVmsCapabilitiesAction action = new GetVmsCapabilitiesAction();
action.vmUuids = asList("86db798b3a0530b187380da6c9c58190");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVmsCapabilitiesAction.Result res = action.call();
```

Python SDK

```
GetVmsCapabilitiesAction action = GetVmsCapabilitiesAction()
action.vmUuids = [86db798b3a0530b187380da6c9c58190]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetVmsCapabilitiesAction.Result res = action.call()
```

5.1.1.107 SetVmNuma

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmNuma": {
    "enable": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmNuma":{"enable":true}}'
http://localhost:8080/zstack/v1/vm-instances/
f523cb5736b630acb643dda6d31be5a0/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM UUID.		4.3.12
enable	boolean	body (contained in the setVmNum structure)body	Specifies whether to enable vNUMA for the VM instance.		4.3.12

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.3.12
userTags	List	body	Optional. The user tags.		4.3.12

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVmNumaAction action = new SetVmNumaAction();
action.uuid = "f523cb5736b630acb643dda6d31be5a0";
action.enable = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVmNumaAction.Result res = action.call();
```

Python SDK

```
SetVmNumaAction action = SetVmNumaAction()
action.uuid = "f523cb5736b630acb643dda6d31be5a0"
action.enable = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetVmNumaAction.Result res = action.call()
```

5.1.1.108 GetVmNuma

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/vnuma
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/1dd7af3a42403a1d9b3734f5ed573103/vnuma
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM UUID.		4.3.12
systemTags	List	body	Optional. The system tags.		4.3.12
userTags	List	body	Optional. The user tags.		4.3.12

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "enable": true
}
```

Name	Type	Description	Starting Version
enable	boolean	Indicates whether vNUMA is enabled for the VM instance.	4.3.12

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.3.12

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.3.12
description	String	The brief description of the error.	4.3.12
details	String	The details about the error.	4.3.12
elaboration	String	The reserved field. Default value: null.	4.3.12
opaque	LinkedHashMap	The reserved field. Default value: null.	4.3.12
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.3.12

SDK Sample

Java SDK

```
GetVmNumaAction action = new GetVmNumaAction();
action.uuid = "1dd7af3a42403a1d9b3734f5ed573103";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
GetVmNumaAction.Result res = action.call();
```

Python SDK

```
GetVmNumaAction action = GetVmNumaAction()
action.uuid = "1dd7af3a42403a1d9b3734f5ed573103"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVmNumaAction.Result res = action.call()
```

5.1.1.109 GetVmvNUMATopology

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/vnuma-topology
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/21529457e42c30f0a9b2a137915a0b28/vnuma-topology
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM UUID.		4.3.12

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "hostUuid": "7fd86bbe6ca94a8d810aa1d33e29932c",
  "topology": [
    {
      "CPUsID": ["0", "1", "2", "3"],
      "distance": ["10", "21"],
      "nodeID": 0,
      "memSize": 1024,
      "phyNodeID": 0
    },
    {
      "CPUsID": ["4", "5", "6", "7"],
      "distance": ["21", "10"],

```

```

        "nodeID": 1,
        "memSize": 2048,
        "phyNodeID": 1
    },
    "name": "vm0",
    "uuid": "71b30db8bca34e9191ed09bff2990e80"
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.3.12
name	String	The VM name.	4.3.12
uuid	String	The VM UUID.	4.3.12
hostUuid	String	The host UUID.	4.3.12
topology	array[json]	The vNUMA topology. For more information, see topology .	4.3.12

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.3.12
description	String	The brief description of the error.	4.3.12
details	String	The details about the error.	4.3.12
elaboration	String	The reserved field. Default value: null.	4.3.12
opaque	LinkedHashMap	The reserved field. Default value: null.	4.3.12
cause	ErrorCode	The root error, which is the associated root	4.3.12

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#topology

Name	Type	Description	Starting Version
nodeID	int	The vNUMA node ID.	4.3.12
CPUsID	array[string]	The vCPU IDs in the vNUMA node.	4.3.12
phyNodeID	int	The pNUMA node ID.	4.3.12
distance	array[string]	The distance information of the vNUMA node.	4.3.12
memSize	long	The memory size of the vNUMA node, in the unit of B.	4.3.12

SDK Sample

Java SDK

```
GetVmvNUMATopologyAction action = new GetVmvNUMATopologyAction()
action.uuid = "ff6d905e75d63e18ab0a9fc2ac14951c"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVmvNUMATopologyAction.Result res = action.call()
```

Python SDK

```
GetVmvNUMATopologyAction action = new GetVmvNUMATopologyAction()
action.uuid = "ff6d905e75d63e18ab0a9fc2ac14951c"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetVmvmNUMATopologyAction.Result res = action.call()
```

5.1.1.110 SetVmEmulatorPinning

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmEmulatorPinning": {
    "emulatorPinning": "1-4"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmEmulatorPinning":{"emulatorPinning":"1-4"}}'
http://localhost:8080/zstack/v1/vm-instances/
f523cb5736b630acb643dda6d31be5a0/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.3.12
emulatorPinning	String	body(contained in the setVmEmulatorPinning structure)	The emulator pinning. Format: ([^] ?(\d+)(-\d+)?)?.		4.3.12

Name	Type	Location	Description	Optional Value	Starting Version
			For example: (0-1,16)		
systemTags	List	body	Optional. The system tags.		4.3.12
userTags	List	body	Optional. The user tags.		4.3.12

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVmEmulatorPinningAction action = new SetVmEmulatorPinningAction();
action.uuid = "f523cb5736b630acb643dda6d31be5a0";
action.enable = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVmEmulatorPinningAction.Result res = action.call();
```

Python SDK

```
SetVmEmulatorPinningAction action = SetVmEmulatorPinningAction()
action.uuid = "f523cb5736b630acb643dda6d31be5a0"
action.enable = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetVmEmulatorPinningAction.Result res = action.call()
```

5.1.1.111 GetVmEmulatorPinning

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/emulator-pinning
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/1dd7af3a42403a1d9b3734f5ed573103/emulator-pinning
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.3.12
systemTags	List	body	Optional. The system tags.		4.3.12
userTags	List	body	Optional. The user tags.		4.3.12

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{"emulatorPinning": "12,13"}
```

Name	Type	Description	Starting Version
emulatorPinning	String	The emulator pinning	4.3.12
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.3.12

Name	Type	Description	Starting Version
		more information, see error .	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.3.12
description	String	The brief description of the error.	4.3.12
details	String	The details about the error.	4.3.12
elaboration	String	The reserved field. Default value: null.	4.3.12
opaque	LinkedHashMap	The reserved field. Default value: null.	4.3.12
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.3.12

SDK Sample

Java SDK

```
GetVmEmulatorPinningAction action = new GetVmEmulatorPinningAction();
action.uuid = "1dd7af3a42403a1d9b3734f5ed573103";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVmEmulatorPinningAction.Result res = action.call();
```

Python SDK

```
GetVmEmulatorPinningAction action = GetVmEmulatorPinningAction()
action.uuid = "1dd7af3a42403a1d9b3734f5ed573103"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
GetVmEmulatorPinningAction.Result res = action.call()
```

5.1.1.112 QueryVmSchedHistory

API Requests

URLs

```
GET zstack//v1/vm/sched-history
```

```
GET zstack//v1/vm/sched-history/{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Samples

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm/sched-history?
q=vmInstanceUuid=15b5b8ab631d300592bf83d66331f914
```

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm/sched-history/
{vmInstanceUuid}?q=vmInstanceUuid=4240a319fabf3728960d1d7639f3fc0f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVmSchedHistory**, and pressing the **Tab** key.

API Response

```
{
  "inventories": [
    {
      "id": 0.0,
      "vmInstanceUuid": "ec8fe40b4b0a38bc8f195bfc8bfc72e9",
      "accountUuid": "b07dda064256343c894cecfa5d50b42c",
      "schedType": "VMHA",
      "success": true,
      "lastHostUuid": "d4d26f65cfff3fafb98d3da284290455",
      "destHostUuid": "bc001bb4d762395db4b2ed97c6d6dae3"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		0.6

Name	Type	Description	Starting Version
inventories	List	See inventories	4.4.24
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	0.6

#inventories

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM UUID.	4.4.24
accountUuid	String	The account UUID.	4.4.24
schedType	String		4.4.24
success	Boolean		4.4.24
lastHostUuid	String		4.4.24
destHostUuid	String		4.4.24
createDate	Timestamp	The creation date.	4.4.24
lastOpDate	Timestamp	The last operation date.	4.4.24

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.24
description	String	The brief description of the error.	4.4.24
details	String	The details about the error.	4.4.24
elaboration	String	The reserved field. Default value: null.	4.4.24

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.24
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.24

SDK Sample

Java SDK

```
QueryVmSchedHistoryAction action = new QueryVmSchedHistoryAction();
action.conditions = asList("vmInstanceUuid=b35d14e4af4c3f4c8f745e73df083020");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVmSchedHistoryAction.Result res = action.call();
```

Python SDK

```
QueryVmSchedHistoryAction action = QueryVmSchedHistoryAction()
action.conditions = ["vmInstanceUuid=f9bd0652c3843cb285c2e7b8c9f4561b"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVmSchedHistoryAction.Result res = action.call()
```

5.1.1.113 FlattenVmInstance

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "flattenVmInstance": {
    "full": true,
    "dryRun": false
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"flattenVmInstance":{"full":true,"dryRun":false}}'
http://localhost:8080/zstack/v1/vm-instances/
cb728238f38a3adcadac91425f9534b3/actions
```

Request Parameters

Name	Typ	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0
full	boolean	body (contained in the flattenVmInstance structure)	Optional. Flatten all volumes attached to the VM instance.		4.7.0
dryRun	boolean	body (contained in the flattenVmInstance structure)	Optional. Trial . Predicate the data usage.		4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "ce09028b684c3eb78219f5e20bddc3d5",
    "name": "Test-VM",
```

```

"description": "web server VM",
"zoneUuid": "195b75808f5e334da0c35051b798605c",
"clusterUuid": "9b24facbfe7e38d4a7959e15cb49932e",
"imageUuid": "8cc2d322e48031a685dd7cf69bf69614",
"hostUuid": "01dd8eacdf0b3b809f420fad019b4359",
"lastHostUuid": "3462e6ec5e333d5f958c029bc9678610",
"instanceOfferingUuid": "9b45c2c9d9323793a012be186db3dd5b",
"rootVolumeUuid": "7197e64d225232a8947765e00de9b58c",
"platform": "Linux",
"defaultL3NetworkUuid": "9f1d4713936036fa905da008dc91311f",
"type": "UserVm",
"hypervisorType": "KVM",
"memorySize": 8589934592,
"cpuNum": 1,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM",
"state": "Running",
"vmNics": [
  {
    "uuid": "12dadcafdbe2331fa1b5048a86f262c9",
    "vmInstanceUuid": "ce09028b684c3eb78219f5e20bddc3d5",
    "usedIpUuid": "592c4dc8c1c83a5185488e3aded371b4",
    "l3NetworkUuid": "9f1d4713936036fa905da008dc91311f",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0,
    "state": "enable",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"allVolumes": [
  {
    "uuid": "7197e64d225232a8947765e00de9b58c",
    "name": "Root-Volume-For-VM-ce09028b684c3eb78219f5e20bddc3d5",
    "primaryStorageUuid": "a8c0be2045ef3d5eacd48a201bccf5b8",
    "vmInstanceUuid": "ce09028b684c3eb78219f5e20bddc3d5",
    "diskOfferingUuid": "a6eb081851d531b29f771c672c194dbd",
    "rootImageUuid": "8cc2d322e48031a685dd7cf69bf69614",
    "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-7197e64d225232a8947765e00de9b58c/7197e64d22
5232a8947765e00de9b58c.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 107374182400,
    "actualSize": 21474836480,
    "deviceId": 0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

}

Name	Type	Description	Starting Version
success	boolean		4.7.0
inventory	VmInstanceInventory	See inventory .	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
name	String	The resource name.	4.7.0
description	String	The resource description.	4.7.0
zoneUuid	String	The zone UUID.	4.7.0
clusterUuid	String	The cluster UUID.	4.7.0
imageUuid	String	The image UUID.	4.7.0
hostUuid	String	The host UUID.	4.7.0
lastHostUuid	String		4.7.0
instanceOfferingUuid	String	The instance offering UUID.	4.7.0
rootVolumeUuid	String	The root volume UUID.	4.7.0
platform	String		4.7.0
architecture	String		4.7.0
defaultL3NetworkUuid	String		4.7.0
type	String		4.7.0
hypervisorType	String		4.7.0
memorySize	Long		4.7.0
cpuNum	Integer		4.7.0

Name	Type	Description	Starting Version
cpuSpeed	Long		4.7.0
allocatorStrategy	String		4.7.0
createDate	Timestamp	The creation date.	4.7.0
lastOpDate	Timestamp	The last operation date.	4.7.0
state	String		4.7.0
guestOsType	String		4.7.0
vmNics	List	See vmNics .	4.7.0
allVolumes	List	See allVolumes .	4.7.0
vmCdRoms	List	See vmCdRoms .	4.7.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
vmInstanceUuid	String	The VM instance UUID.	4.7.0
l3NetworkUuid	String	The L3 network UUID.	4.7.0
ip	String		4.7.0
mac	String		4.7.0
hypervisorType	String		4.7.0
netmask	String		4.7.0
gateway	String		4.7.0
metaData	String		4.7.0
ipVersion	Integer		4.7.0
driverType	String		4.7.0
internalName	String		4.7.0
deviceId	Integer		4.7.0
type	String		4.7.0
state	String	The NIC state.	4.7.0
createDate	Timestamp	The creation date.	4.7.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	the last operation date.	4.7.0
usedIps	List	See usedIps .	4.7.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
ipRangeUuid	String	The UUID of the IP range	4.7.0
l3NetworkUuid	String	The L3 network UUID.	4.7.0
ipVersion	Integer		4.7.0
ip	String		4.7.0
netmask	String		4.7.0
gateway	String		4.7.0
usedFor	String		4.7.0
ipInLong	long		4.7.0
vmNicUuid	String	The VM NIC UUID.	4.7.0
createDate	Timestamp	The creation date.	4.7.0
lastOpDate	Timestamp	The last operation date,	4.7.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
name	String	The resource name.	4.7.0
description	String	The resource description.	4.7.0
primaryStorageUuid	String	The primary storage UUID.	4.7.0
vmInstanceUuid	String	The VM instance UUID.	4.7.0

Name	Type	Description	Starting Vesion
diskOfferingUuid	String	The disk offering UUID	4.7.0
rootImageUuid	String		4.7.0
installPath	String		4.7.0
type	String		4.7.0
format	String		4.7.0
size	Long		4.7.0
actualSize	Long		4.7.0
deviceId	Integer		4.7.0
state	String		4.7.0
status	String		4.7.0
createDate	Timestamp	The creation date.	4.7.0
lastOpDate	Timestamp	The last operation date.	4.7.0
isShareable	Boolean		4.7.0
volumeQos	String		4.7.0
lastDetachDate	Timestamp		4.7.0
lastVmInstanceUuid	String		4.7.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
vmInstanceUuid	String	The VM instance UUID.	4.7.0
deviceId	Integer		4.7.0
isoUuid	String		4.7.0
isoInstallPath	String		4.7.0
name	String	The resource name.	4.7.0
description	String	The resource description.	4.7.0
createDate	Timestamp	The creation date.	4.7.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```

FlattenVmInstanceAction action = new FlattenVmInstanceAction();
action.uuid = "cb728238f38a3adcadac91425f9534b3";
action.full = true;
action.dryRun = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
FlattenVmInstanceAction.Result res = action.call();

```

Python SDK

```

FlattenVmInstanceAction action = FlattenVmInstanceAction()
action.uuid = "cb728238f38a3adcadac91425f9534b3"
action.full = true

```

```
action.dryRun = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
FlattenVmInstanceAction.Result res = action.call()
```

5.1.1.114 ExecuteGuestVmCommand

API Request

URLs

```
PUT zstack/v1/vm-instances/commands/exec
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmInstanceUuid": "af89f31332ac3457874450311affadc2",
    "platform": "Linux",
    "command": "echo helloworld",
    "commandTimeout": 20
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vmInstanceUuid": "af89f31332ac3457874450311affadc2", "platform": "Linux", "command":
"helloworld", "commandTimeout": 20}}' http://localhost:8080/zstack/v1/
vm-instances/commands/exec
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmInstance Uuid	String	body (contained in	The VM instance UUID		5.2.0

Name	Type	Location	Description	Valid Value	Starting Version
		the params structure)			
platform	String	body (contained in the params structure)	The platform.	- Windows - Linux	5.2.0
command	String	body (contained in the params structure)	The command .		5.2.0
commandTimeout	Integer	body (contained in the params structure)	Optional. The timeout period .		5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

Sample Response

```
{
  "stream": "standardStream: hello world, errorStream: 1/0 is not a goodScript",
  "vmInstance": {
    "uuid": "fc022ba201c135d8809c5e02bf6bf156",
    "name": "vm_1"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.2.0
stream	String	The stream.	5.2.0
vmInstance	VmInstanceInventory	See vmInstance	5.2.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	5.2.0

Name	Type	Description	Starting Version
		more information, see error	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
name	String	The resource name.	5.2.0
description	String	The detailed description of the resource.	5.2.0
zoneUuid	String	The zone UUID.	5.2.0
clusterUuid	String	The cluster UUID.	5.2.0
imageUuid	String	The image UUID.	5.2.0
hostUuid	String	The host UUID.	5.2.0
lastHostUuid	String		5.2.0
instanceOfferingUuid	String	The instance offering UUID.	5.2.0
rootVolumeUuid	String	The root volume UUID.	5.2.0
platform	String		5.2.0
architecture	String		5.2.0
defaultL3NetworkUuid	String		5.2.0
type	String		5.2.0
hypervisorType	String		5.2.0
memorySize	Long		5.2.0
cpuNum	Integer		5.2.0
cpuSpeed	Long		5.2.0
allocatorStrategy	String		5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time.	5.2.0
state	String		5.2.0

Name	Type	Description	Starting Version
guestOsType	String		5.2.0
vmNics	List	See vmNics	5.2.0
allVolumes	List	See allVolumes	5.2.0
vmCdRoms	List	See vmCdRoms	5.2.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
vmInstanceUuid	String	The VM instance UUID.	5.2.0
l3NetworkUuid	String	The L3 network UUID.	5.2.0
ip	String		5.2.0
mac	String		5.2.0
hypervisorType	String		5.2.0
netmask	String		5.2.0
gateway	String		5.2.0
metaData	String		5.2.0
ipVersion	Integer		5.2.0
driverType	String		5.2.0
internalName	String		5.2.0
deviceId	Integer		5.2.0
type	String		5.2.0
state	String	The NIC state.	5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time	5.2.0
usedIps	List	See usedIps	5.2.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
ipRangeUuid	String	The IP range UUID.	5.2.0
l3NetworkUuid	String	The L3 network UUID.	5.2.0
ipVersion	Integer		5.2.0
ip	String		5.2.0
netmask	String		5.2.0
gateway	String		5.2.0
usedFor	String		5.2.0
ipInLong	long		5.2.0
vmNicUuid	String	The VM NIC UUID.	5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time	5.2.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
name	String	The resource name.	5.2.0
description	String	The detailed description of the resource.	5.2.0
primaryStorageUuid	String	The primary storage UUID.	5.2.0
vmInstanceUuid	String	The VM instance UUID.	5.2.0
diskOfferingUuid	String	The disk offering UUID	5.2.0
rootImageUuid	String		5.2.0
installPath	String		5.2.0
type	String		5.2.0
format	String		5.2.0
size	Long		5.2.0

Name	Type	Description	Starting Version
actualSize	Long		5.2.0
deviceId	Integer		5.2.0
state	String		5.2.0
status	String		5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time	5.2.0
isShareable	Boolean		5.2.0
volumeQos	String		5.2.0
lastDetachDate	Timestamp		5.2.0
lastVmInstanceUuid	String		5.2.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
vmInstanceUuid	String	The VM instance UUID.	5.2.0
deviceId	Integer		5.2.0
isoUuid	String		5.2.0
isoInstallPath	String		5.2.0
name	String	The resource name.	5.2.0
description	String	The detailed description of the resource.	5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time	5.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	5.2.0

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	5.2.0
details	String	The details about the error.	5.2.0
elaboration	String	The reserved field. Default value: null.	5.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.2.0

SDK Sample

Java SDK

```
ExecuteGuestVmCommandAction action = new ExecuteGuestVmCommandAction
();
action.vmInstanceId = "af89f31332ac3457874450311affadc2";
action.platform = "Linux";
action.command = "echo helloworld";
action.commandTimeout = 20;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ExecuteGuestVmCommandAction.Result res = action.call();
```

Python SDK

```
ExecuteGuestVmCommandAction action = ExecuteGuestVmCommandAction()
action.vmInstanceId = "af89f31332ac3457874450311affadc2"
action.platform = "Linux"
action.command = "echo helloworld"
action.commandTimeout = 20
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ExecuteGuestVmCommandAction.Result res = action.call()
```

5.1.1.115 UploadFileToVm

API Request

URLs

```
POST zstack/v1/upload-file
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmInstanceUuids": [
      "358310f6b6b23b9f9bdcf8d34b03719f"
    ],
    "fileContent": "ZWNobyBoZWxsb3dvcmxkCg\u003d\u003d",
    "remotePath": "/var/lib/zstack/uploadfile"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"vmInstanceUuids":
["358310f6b6b23b9f9bdcf8d34b03719f"],"fileContent":"ZWNobyBoZWxsb3dvcmxkCg==", "remotePath":"/var/lib/zstack/uploadfile"}}' http://localhost:8080/zstack/v1/upload-file
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vmInstanceUuids	List	body (contained in the params structure)	The VM instances that the files are uploaded to.		5.2.0

Name	Type	Location	Description	Valid Values	Starting Version
fileContent	String	body (contained in the params structure)	The file content which is encoded using Base64.		5.2.0
remotePath	String	body (contained in the params structure)	The absolute path that the files are uploaded to . The path contains the file name.		5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UploadFileToVmAction action = new UploadFileToVmAction();
action.vmInstanceUuids = asList("358310f6b6b23b9f9bdcf8d34b03719f");
action.fileContent = "ZWNobyBoZWxsb3dvcmxkCg==";
action.remotePath = "/var/lib/zstack/uploadfile";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UploadFileToVmAction.Result res = action.call();
```

Python SDK

```
UploadFileToVmAction action = UploadFileToVmAction()
action.vmInstanceUuids = [358310f6b6b23b9f9bdcf8d34b03719f]
action.fileContent = "ZWNobyBoZWxsb3dvcmxkCg=="
```

```
action.remotePath = "/var/lib/zstack/uploadfile"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UploadFileToVmAction.Result res = action.call()
```

5.1.2 Volume Operations

5.1.2.1 CreateDataVolume

API Request

URLs

```
POST zstack/v1/volumes/data
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "test-volume",
    "description": "test-data-volume",
    "diskOfferingUuid": "d8732f8e173543ef85a0c2066559ef94",
    "primaryStorageUuid": "ad21b7c7f4ca4d86b348a415347ab1b5",
    "resourceUuid": "e3c9ebe5b5144dd4ba791c5f2959726a"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"test-volume","description":"test-data-volume","diskOfferingUuid":"d88594833a393e119c6fc5a8aa2ad08f","primaryStorageUuid":"d88594833a393e119c6fc5a8aa2ad08f"},"systemTags":[]}' \
http://localhost:8080/zstack/v1/volumes/data
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The volume name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the volume.		0.6
diskOfferingUuid	String	body (contained in the params structure)	The disk offering UUID.		0.6
primaryStorageUuid	String	body (contained in the params structure)	Optional. The primary storage UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.4.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you create a data volume in ZStack Cloud, you can specify the volume provisioning strategy by adding the **volumeProvisioningStrategy** option to **SystemTags**. The SystemTag is passed by using the **dataVolumeSystemTags** parameter.
 - Format of the **volumeProvisioningStrategy** option: `volumeProvisioningStrategy::ThinProvisioning`, `volumeProvisioningStrategy::ThickProvisioning`

- Example: `volumeProvisioningStrategy::ThinProvisioning`, `volumeProvisioningStrategy::ThickProvisioning`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b9d6460b286441099fa9cb3fe5bce9ec",
    "name": "test-volume",
    "primaryStorageUuid": "d7d84bb097da41918ee27eeb3b92d4f4",
    "vmInstanceUuid": "8732b8e254ad4db18a5cad5d04315948",
    "diskOfferingUuid": "7e6d828db0b84d8cb62a44e3d4badc7d",
    "rootImageUuid": "8384b89b03914655b888f9b4f864ab07",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-b9d6460b286441099fa9cb3fe5bce9ec/b9d6460b286441099fa9cb3fe5bce9ec.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "May 11, 2017 1:22:51 PM",
    "lastOpDate": "May 11, 2017 1:22:51 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VolumeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6

Name	Type	Description	Starting Version
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
CreateDataVolumeAction action = new CreateDataVolumeAction();
action.name = "test-volume";
action.description = "test-data-volume";
action.diskOfferingUuid = "cec2445214fd4e5bb10671b453d25677";
action.primaryStorageUuid = "be3baf0aa09f45ab9ae19c7b6d177ca2";
action.resourceUuid = "f2ebba352d8b43feb434f926f1635ae4";
action.sessionId = "054df264a21d40bbddf4f292c4993842";
CreateDataVolumeAction.Result res = action.call();
```

Python SDK

```
CreateDataVolumeAction action = CreateDataVolumeAction()
action.name = "test-volume"
action.description = "test-data-volume"
action.diskOfferingUuid = "d9ede14fbc6547808208d40658d1dbbd"
action.primaryStorageUuid = "f6f7257560cd4278b2202157b45d8687"
action.resourceUuid = "3344b25d00ae40c4bfab494d724cb95c"
action.sessionId = "755a549dc19e400ea3b22710c5370c75"
CreateDataVolumeAction.Result res = action.call()
```

5.1.2.2 DeleteDataVolume

API Request

URLs

```
DELETE zstack/v1/volumes/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```



```
-H "Authorization: OAuth 92d7ee354b4e4ed19aea6a7ebb172096" \
-X DELETE http://localhost:8080/zstack/v1/
volumes/3102474ff9514720b79ff3719ab6c8e5?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
deleteMode	String	body	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteDataVolumeAction action = new DeleteDataVolumeAction();
action.uuid = "0c9ca7222d914c628d60f5f38b8a5e1e";
action.deleteMode = "Permissive";
action.sessionId = "6b164d54219d4ef8a287fb4937333d54";
DeleteDataVolumeAction.Result res = action.call();
```

Python SDK

```
DeleteDataVolumeAction action = DeleteDataVolumeAction()
```

```

action.uuid = "ba73b65a66ce433790526c3ee146db3b"
action.deleteMode = "Permissive"
action.sessionId = "fce147bb4ab540448ad4f1798e90f3f9"
DeleteDataVolumeAction.Result res = action.call()

```

5.1.2.3 ExpungeDataVolume

API Request

URLs

```
PUT zstack/v1/volumes/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "expungeDataVolume": {},
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"expungeDataVolume":{}}' \
http://localhost:8080/zstack/v1/
volumes/6dd47cca96f238c899aacd61867db520/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ExpungeDataVolumeAction action = new ExpungeDataVolumeAction();
action.uuid = "347edf4db9e9482a895f7aab3d7f4c26";
action.sessionId = "cc3787426fdd480f8ae6ad656b37b909";
ExpungeDataVolumeAction.Result res = action.call();
```

Python SDK

```
ExpungeDataVolumeAction action = ExpungeDataVolumeAction()
action.uuid = "2dc23f228294cab80bcd90e0024dc89"
action.sessionId = "86af19d2bda54fa6bee0204b8e33d4de"
ExpungeDataVolumeAction.Result res = action.call()
```

5.1.2.4 RecoverDataVolume

API Request

URLs

```
PUT zstack/v1/volumes/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "recoverDataVolume": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"recoverDataVolume":{}}' \
http://localhost:8080/zstack/v1/
volumes/9f5090fc93ff33e283e0ff3c99fad1e2/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "70820c8ead5144ebaf603b88e63a4d17",
    "name": "test-volume",
    "primaryStorageUuid": "abdb1c3460094359baa202c481633470",
    "vmInstanceUuid": "2f0d6191cc5d452cbbe83284f750c8dd",
    "diskOfferingUuid": "e3526a708a2845f49f2d09404bf0b67d",
    "rootImageUuid": "283433d3b0654d16a63f1add9abad3e6",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d
2fa65700f22e/vol-70820c8ead5144ebaf603b88e63a4d17/70820c8ead5144ebaf60
3b88e63a4d17.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "May 11, 2017 1:22:48 PM",
    "lastOpDate": "May 11, 2017 1:22:48 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VolumeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
RecoverDataVolumeAction action = new RecoverDataVolumeAction();
action.uuid = "16bc12c40c2242189a9c80a0e908dc21";
action.sessionId = "e444803b7dd047238dca620217929bff";
RecoverDataVolumeAction.Result res = action.call();
```

Python SDK

```
RecoverDataVolumeAction action = RecoverDataVolumeAction()
action.uuid = "d5bd95c8ce764a72b77510f17a2eb3a4"
action.sessionId = "ba4360074009447184682979d1c0fd26"
```

```
RecoverDataVolumeAction.Result res = action.call()
```

5.1.2.5 ChangeVolumeState

API Request

URLs

```
PUT zstack/v1/volumes/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVolumeState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeVolumeState":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/
volumes/97fa26ec14d9328c9cfada75e3c0307b/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
stateEvent	String	body (contained in the changeVolu	Whether to enable or disable the volume.	- enable - disable	0.6

Name	Type	Location	Description	Optional Value	Starting Version
		meState structure)			
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0404b47365d14328b69be6ba29f79e74",
    "name": "test-volume",
    "primaryStorageUuid": "b86a9e49bf0e4c96b13b416de45031b1",
    "vmInstanceUuid": "00e88729e2f64212a7ae19c135de879d",
    "diskOfferingUuid": "9042780280534984ad298f8c6613e162",
    "rootImageUuid": "de9c09f4f3f7409e98ac0dbb6cae76a2",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d
2fa65700f22e/vol-0404b47365d14328b69be6ba29f79e74/0404b47365d14328b69b
e6ba29f79e74.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Jun 7, 2017 9:21:21 PM",
    "lastOpDate": "Jun 7, 2017 9:21:21 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VolumeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID .	0.6
rootImageUuid	String		0.6
installPath	String		0.6

Name	Type	Description	Starting Version
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
ChangeVolumeStateAction action = new ChangeVolumeStateAction();
action.uuid = "67553476ee8643f49ac88304822acd7f";
action.stateEvent = "enable";
action.sessionId = "dc32c1bb220843efb1e3b27b9ca95695";
ChangeVolumeStateAction.Result res = action.call();
```

Python SDK

```
ChangeVolumeStateAction action = ChangeVolumeStateAction()
action.uuid = "d18b8dc1ba91461f995e6904bd6a7fc4"
action.stateEvent = "enable"
action.sessionId = "72301e2f3cf94e57adf10f56a08d1d12"
```

```
ChangeVolumeStateAction.Result res = action.call()
```

5.1.2.6 CreateDataVolumeFromVolumeTemplate

API Request

URLs

```
POST zstack/v1/volumes/data/from/data-volume-templates/{imageUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "data-volume-1",
    "description": "dataVolume-from-volume-template",
    "primaryStorageUuid": "faf07bfbec0944499d566345f0de383e",
    "hostUuid": "c0411ea2b3d949fab31239d200a83faf"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"data-volume-1","description":"dataVolume-from-volume-template","primaryStorageUuid":"849de664b4db321f8eeef65a1aa757c7","hostUuid":"0de664b4db321f8eeef65a1aa757c7"},"systemTags":[],"userTags":[]}' \
http://localhost:8080/zstack/v1/volumes/data/from/data-volume-templates/285f4a49e7403d2dad9545b42c33b837
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
imageUuid	String	url	The image UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The volume name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the volume.		0.6
primaryStorageUuid	String	body (contained in the params structure)	The primary storage UUID.		0.6
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you create a volume from an image in ZStack Cloud, you can create a shared volume by adding the **shareable** option to **SystemTags**. The SystemTag is passed by using the **shareable** parameter. Note that you will create a shared volume if you add this SystemTag. If you do not add this SystemTag, you will create a normal volume.

API Response

Sample Response

```
{
  "inventory": {
```

```

    "uuid": "289aaa0f33004cb6adba798bf9c8273b",
    "name": "test-volume",
    "primaryStorageUuid": "5697632ba45c46408044aefbab433945",
    "vmInstanceUuid": "c0dccc2ca8945e1b96b446f7bdba30f",
    "diskOfferingUuid": "5909df7b2c3f4751b0491f53533c505f",
    "rootImageUuid": "a8c3608b85a0450d99b9b5339ee4dcec",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d
2fa65700f22e/vol-289aaa0f33004cb6adba798bf9c8273b/289aaa0f33004cb6adba
798bf9c8273b.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Jun 7, 2017 9:21:14 PM",
    "lastOpDate": "Jun 7, 2017 9:21:14 PM"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VolumeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
CreateDataVolumeFromVolumeTemplateAction action = new CreateDataVolumeFromVolumeTemplateAction();
action.imageUuid = "f0f991b7883b49869e03b0e9d42a5ce9";
action.name = "data-volume-1";
action.description = "dataVolume-from-volume-template";
action.primaryStorageUuid = "0b325fbe797f413290c6015f49160caf";
action.hostUuid = "2c23c98e197745359455268a6414f6cc";
action.sessionId = "351589a73b6247ee817acfc89609a396";
CreateDataVolumeFromVolumeTemplateAction.Result res = action.call();
```

Python SDK

```
CreateDataVolumeFromVolumeTemplateAction action = CreateDataVolumeFromVolumeTemplateAction()
action.imageUuid = "eeeea8f11bf174bf39ffb341c96e93765"
action.name = "data-volume-1"
action.description = "dataVolume-from-volume-template"
action.primaryStorageUuid = "f1bf0bc060474a9484a822a7b9ea3bec"
action.hostUuid = "883173c367ba42e49434429012376f36"
action.sessionId = "7c098bc9e7e24c1ca81ff90d355b2fca"
CreateDataVolumeFromVolumeTemplateAction.Result res = action.call()
```

5.1.2.7 CreateDataVolumeFromVolumeSnapshot

API Request

URLs

```
POST zstack/v1/volumes/data/from/volume-snapshots/{volumeSnapshotUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "DataVolume-1",
    "description": "dataVolume-from-snapshot",
    "primaryStorageUuid": "4102177b842946a4adf6ba0008710ed6"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name": "DataVolume-1", "description": "dataVolume-from-
snapshot", "primaryStorageUuid": "b2237f228a343d0cb8b20b5b64663314"}}' \
http://localhost:8080/zstack/v1/volumes/data/from/volume-
snapshots/192da9c7d6493a5d9a35d2df2dcc82b0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The volume name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the volume.		0.6
volumeSnapshotUuid	String	url	The volume snapshot UUID.		0.6
primaryStorageUuid	String	body (contained in the params structure)	Optional. The primary storage UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
```



```

"uuid": "0f7ad281abd34b4d94df149756daa45d",
"name": "test-volume",
"primaryStorageUuid": "e39d9b37365141f8a126e53555a57f2d",
"vmInstanceUuid": "b03e00f24ef842cb9c31fd0f8ab3f38b",
"diskOfferingUuid": "cc97edd1f7aa4cc39656e73490863b4d",
"rootImageUuid": "d15926cb82a54a26b098e19a982f2f6b",
"installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d
2fa65700f22e/vol-0f7ad281abd34b4d94df149756daa45d/0f7ad281abd34b4d94df
149756daa45d.qcow2",
"type": "Root",
"format": "qcow2",
"size": 1.073741824E11,
"actualSize": 2.147483648E10,
"deviceId": 0.0,
"state": "Enabled",
"status": "Ready",
"createDate": "Jun 7, 2017 9:21:17 PM",
"lastOpDate": "Jun 7, 2017 9:21:17 PM"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VolumeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
CreateDataVolumeFromVolumeSnapshotAction action = new CreateDataVolumeFromVolumeSnapshotAction();
action.name = "DataVolume-1";
action.description = "dataVolume-from-snapshot";
action.volumeSnapshotUuid = "179e11d25aea49ce81ba612108451a8f";
action.primaryStorageUuid = "4d39340d1a9d4bd7a834493af50020ab";
action.sessionId = "d28727a6c2fc44fe9673c4b67da615b5";
CreateDataVolumeFromVolumeSnapshotAction.Result res = action.call();
```

Python SDK

```
CreateDataVolumeFromVolumeSnapshotAction action = CreateDataVolumeFromVolumeSnapshotAction()
action.name = "DataVolume-1"
action.description = "dataVolume-from-snapshot"
action.volumeSnapshotUuid = "79200ff743314dd1b1e46bdf9b26f72f"
action.primaryStorageUuid = "920b891ae2b84a53a802a0ddc37a7d0c"
action.sessionId = "c4c003ce6d664a0db244e5587b6ec7d2"
CreateDataVolumeFromVolumeSnapshotAction.Result res = action.call()
```

5.1.2.8 QueryVolume

API Request

URLs

```
GET zstack/v1/volumes
GET zstack/v1/volumes/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 37d226de07584043ab547642e4a9d14c" \
-X GET http://localhost:8080/zstack/v1/volumes
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 97dc2b0fd5264c6bb2ff9e693791d492" \
-X GET http://localhost:8080/zstack/v1/volumes/
ca621f583bac4b979348fce553525146
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVolume`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "b289ce8ac3874e88b4d4ce5cc4fc4c6e",
      "name": "test-volume",
      "primaryStorageUuid": "8749501379364105ba214227fc79578f",
      "vmInstanceUuid": "4cf370ed63bb43f99d88755b87f722c1",
      "diskOfferingUuid": "9e4d1d1a0e1a483da86eac0ab99c96ce",
      "rootImageUuid": "0116e6093d80474693ddac2e670122e4",
      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-b289ce8ac3874e88b4d4ce5cc4fc4c6e/b289ce8ac3874e88b4d4ce5cc4fc4c6e.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Jun 7, 2017 9:20:25 PM",
      "lastOpDate": "Jun 7, 2017 9:20:25 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6

Name	Type	Description	Starting Version
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
QueryVolumeAction action = new QueryVolumeAction();
action.conditions = asList();
action.sessionId = "a6c77f7c77dd425e98f3089363725c06";
QueryVolumeAction.Result res = action.call();
```

Python SDK

```
QueryVolumeAction action = QueryVolumeAction()
action.conditions = []
action.sessionId = "8e464fe1562b4fcc80b02596f455e6a8"
QueryVolumeAction.Result res = action.call()
```

5.1.2.9 GetVolumeFormat

API Request

URLs

```
GET zstack/v1/volumes/formats
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 91c86306f8fd45ba9af34c549baa8052" \
-X GET http://localhost:8080/zstack/v1/volumes/formats
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "formats": [
    {
      "format": "iso",
      "masterHypervisorType": "KVM",
      "supportingHypervisorTypes": [
        "ESX",
        "KVM"
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
formats	List	See formats .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#formats

Name	Type	Description	Starting Version
format	String	The volume format.	0.6
masterHypervisorType	String	The default hypervisor type.	0.6
supportingHypervisorTypes	List	The list of supported hypervisor types.	0.6

SDK Sample

Java SDK

```
GetVolumeFormatAction action = new GetVolumeFormatAction();
action.sessionId = "6fda4c2362614bec9ec42a2eb8f4a4b0";
GetVolumeFormatAction.Result res = action.call();
```

Python SDK

```
GetVolumeFormatAction action = GetVolumeFormatAction()
action.sessionId = "a5cd7896806e4717a609899d22a90594"
```



```
GetVolumeFormatAction.Result res = action.call()
```

5.1.2.10 GetVolumeCapabilities

API Request

URLs

```
GET zstack/v1/volumes/{uuid}/capabilities
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 202bde8c03d94942b052da20b48a2301" \
-X GET http://localhost:8080/zstack/v1/
volumes/96646576bd1c44ac845810374ca41c58/capabilities
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "capabilities": {
    "MigrationToOtherPrimaryStorage": true,
    "MigrationInCurrentPrimaryStorage": true
  }
}
```

Name	Type	Description	Starting Version
capabilities	Map	The capabilities supported by the volume.	0.6

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVolumeCapabilitiesAction action = new GetVolumeCapabilitiesAction
();
action.uuid = "23c96138a1874aeebcd082be9b21f905";
action.sessionId = "b8980f940bad4558947437d211262e2f";
```

```
GetVolumeCapabilitiesAction.Result res = action.call();
```

Python SDK

```
GetVolumeCapabilitiesAction action = GetVolumeCapabilitiesAction()
action.uuid = "b645da1aa3ed4771b0860d01144929b6"
action.sessionId = "277436d4a8f54942a496ca64b2d7f3f0"
GetVolumeCapabilitiesAction.Result res = action.call()
```

5.1.2.11 SyncVolumeSize

API Request

URLs

```
PUT zstack/v1/volumes/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncVolumeSize": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncVolumeSize":{}}' \
http://localhost:8080/zstack/v1/
volumes/017a6c821b3433c594285712cd7e69f4/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d0cd0413d1b241fca524322b56f4687d",
    "name": "test-volume",
    "primaryStorageUuid": "8dea01cf7afb4d7bb89ea432fc15258e",
    "vmInstanceUuid": "f93fa5fea43f42449409c35914c47732",
    "diskOfferingUuid": "a2915a283c744389a6bae0d42b203e18",
    "rootImageUuid": "da66399cb83048b0b87fa113ddcd3755",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-d0cd0413d1b241fca524322b56f4687d/d0cd0413d1b241fca524322b56f4687d.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Jun 7, 2017 9:21:08 PM",
    "lastOpDate": "Jun 7, 2017 9:21:08 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VolumeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID .	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6

Name	Type	Description	Starting Version
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
SyncVolumeSizeAction action = new SyncVolumeSizeAction();  
action.uuid = "793ac8595fbc44618934ccf474c9c82b";  
action.sessionId = "eab6cd1a880749ae818f6402c0c72af5";  
SyncVolumeSizeAction.Result res = action.call();
```

Python SDK

```
SyncVolumeSizeAction action = SyncVolumeSizeAction()  
action.uuid = "e269f644c3324709a2254d84a6f86457"  
action.sessionId = "48363f37efe6484abfff927059cedae3"  
SyncVolumeSizeAction.Result res = action.call()
```

5.1.2.12 BatchSyncVolumeSize

API Request

URLs

```
POST zstack/v1/volumes/batch-sync-volumes
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  

```

```
-X POST http://localhost:8080/zstack/v1/volumes/batch-sync-volumes
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
clusterUuid	String	body	The cluster UUID.		4.5.3
systemTags (可选)	List	body	The system tag.		4.5.3
userTags (可选)	List	body	The user tag.		4.5.3

API Response

Sample Response

```
{
  "failCount": 3,
  "successCount": 3
}
```

Name	Type	Description	Starting Version
failCount	int	The failure count.	4.5.3
successCount	int	The success count.	4.5.3
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.5.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.5.3
description	String	The brief description of the error.	4.5.3

Name	Type	Description	Starting Version
details	String	The details about the error.	4.5.3
elaboration	String	The reserved field. Default value: null.	4.5.3
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.3

SDK Sample

Java SDK

```
BatchSyncVolumeSizeAction action = new BatchSyncVolumeSizeAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
action.clusterUuid = "5hs8kc3m867kg4x46k8l04dv461vps9e";
BatchSyncVolumeSizeAction.Result res = action.call();
```

Python SDK

```
BatchSyncVolumeSizeAction action = BatchSyncVolumeSizeAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
action.clusterUuid = "5hs8kc3m867kg4x46k8l04dv461vps9e"
BatchSyncVolumeSizeAction.Result res = action.call()
```

5.1.2.13 ResizeRootVolume

API Request

URLs

```
PUT zstack/v1/volumes/resize/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "resizeRootVolume": {
    "size": 1.0E7
  }
}
```



```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"resizeRootVolume":{"size":1.0E7}}' \
http://localhost:8080/zstack/v1/volumes/
resize/16a052d270983392bd2824c06a44253f/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.2
size	long	body (contained in the resizeRootVolume structure)	The new size.		2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response**Sample Response**

```

{
  "inventory": {
    "uuid": "f6ace13363934d2d9a2dc29c53a83bc4",
    "name": "test-volume",
    "primaryStorageUuid": "a849a9d7cf864b95a4a1223db572a73c",
    "vmInstanceUuid": "d05fda61030645c293688fd2e67b6881",
    "diskOfferingUuid": "f31553ca15f4495cbd7f3954426f9f1f",
    "rootImageUuid": "5ef070a672ea48e583c8f4fd6441a58c",

```

```

    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d
2fa65700f22e/vol-f6ace13363934d2d9a2dc29c53a83bc4/f6ace13363934d2d9a2d
c29c53a83bc4.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Sep 22, 2017 12:24:45 PM",
    "lastOpDate": "Sep 22, 2017 12:24:45 PM"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventory	VolumeInventory	See inventory .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.2

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
primaryStorageUuid	String	The primary storage UUID.	2.2
vmInstanceUuid	String	The VM instance UUID.	2.2
diskOfferingUuid	String	The disk offering UUID.	2.2
rootImageUuid	String		2.2
installPath	String		2.2
type	String		2.2
format	String		2.2
size	Long		2.2
actualSize	Long		2.2
deviceId	Integer		2.2
state	String		2.2
status	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
isShareable	Boolean		2.2

SDK Sample

Java SDK

```
ResizeRootVolumeAction action = new ResizeRootVolumeAction();
```

```
action.uuid = "d39ece16a6e74d1582541f256a6bc6fe";
action.size = 1.0E7;
action.sessionId = "cae45c7f96264807afaf6337ee40c236";
ResizeRootVolumeAction.Result res = action.call();
```

Python SDK

```
ResizeRootVolumeAction action = ResizeRootVolumeAction()
action.uuid = "9101b352108041baad9acfadcd38aa22"
action.size = 1.0E7
action.sessionId = "dfa1c04aa43f48118cae6ccaabd8bc5c"
ResizeRootVolumeAction.Result res = action.call()
```

5.1.2.14 ResizeDataVolume

API Request

URLs

```
PUT zstack/v1/volumes/data/resize/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "resizeDataVolume": {
    "size": 1.0E7
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"resizeDataVolume":{"size":1.0E7}}' \
http://localhost:8080/zstack/v1/volumes/data/
resize/6c2a13e8d7fa3ef99091bc6a445d4e9c/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.2
size	long	body (contained in the resizeData Volume structure)	The new size.		2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "f17a01d17e4d39bdb17d227a1df97e3a",
    "name": "test-volume",
    "primaryStorageUuid": "83245aa16d02322785f84450d1a05441",
    "vmInstanceUuid": "14ca01538ffa3ab49aad3dd60c4c41b4",
    "diskOfferingUuid": "9dd65df23d453f25855a2c2b2f9f778b",
    "rootImageUuid": "825ca3ebcb053abf843ed8b2731ec4b9",
    "installPath": "/Cloud_ps/dataVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-f17a01d17e4d39bdb17d227a1df97e3a/f17a01d17e4d39bdb17d227a1df97e3a.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 20, 2017 1:50:58 PM",
    "lastOpDate": "Nov 20, 2017 1:50:58 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	2.2

Name	Type	Description	Starting Version
		more information, see error .	
inventory	VolumeInventory	See inventory .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
primaryStorageUuid	String	The primary storage UUID.	2.2

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	2.2
diskOfferingUuid	String	The disk offering UUID.	2.2
rootImageUuid	String		2.2
installPath	String		2.2
type	String		2.2
format	String		2.2
size	Long		2.2
actualSize	Long		2.2
deviceId	Integer		2.2
state	String		2.2
status	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
isShareable	Boolean		2.2

SDK Sample

Java SDK

```
ResizeDataVolumeAction action = new ResizeDataVolumeAction();
action.uuid = "6c2a13e8d7fa3ef99091bc6a445d4e9c";
action.size = 1.0E7;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ResizeDataVolumeAction.Result res = action.call();
```

Python SDK

```
ResizeDataVolumeAction action = ResizeDataVolumeAction()
action.uuid = "6c2a13e8d7fa3ef99091bc6a445d4e9c"
action.size = 1.0E7
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ResizeDataVolumeAction.Result res = action.call()
```

5.1.2.15 UpdateVolume

API Request

URLs

```
PUT zstack/v1/volumes/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVolume": {
    "name": "volume-1",
    "description": "data-volume"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVolume":{"name":"volume-1","description":"data-volume"}}' \
http://localhost:8080/zstack/v1/volumes/
f1eddfdb19ad3a0881b0be863901ff09/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
name	String	body (contained in the	Optional. The volume name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		updateVolume structure)			
description	String	body (contained in the updateVolume structure)	Optional. The detailed description of the volume.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "31ae1f16a1774ead98a84432e08e438c",
    "name": "test-volume",
    "primaryStorageUuid": "dafbef4c002b4bf49ac63a2e0cf8c616",
    "vmInstanceUuid": "417e81050f424bf88b515c2bbc3e9d24",
    "diskOfferingUuid": "80b0f3edaa2f4c0284240d16aebf8da4",
    "rootImageUuid": "edb9e2aa51c5489db12a7073daa6c878",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-31ae1f16a1774ead98a84432e08e438c/31ae1f16a1774ead98a84432e08e438c.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Jun 7, 2017 9:20:28 PM",
    "lastOpDate": "Jun 7, 2017 9:20:28 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

Name	Type	Description	Starting Version
inventory	VolumeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6

Name	Type	Description	Starting Version
diskOfferingUuid	String	The disk offering UUID	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
UpdateVolumeAction action = new UpdateVolumeAction();
action.uuid = "cebcb28540d9474ebf0be79fc9c7efe4";
action.name = "volume-1";
action.description = "data-volume";
action.sessionId = "e5e68d56602441d187139189dce441f7";
UpdateVolumeAction.Result res = action.call();
```

Python SDK

```
UpdateVolumeAction action = UpdateVolumeAction()
action.uuid = "d429120df78e4b7290fd4f50adfa2f2e"
action.name = "volume-1"
action.description = "data-volume"
action.sessionId = "31a278c3b4024dc48b952196c0ae34a0"
```

```
UpdateVolumeAction.Result res = action.call()
```

5.1.2.16 SetVolumeQoS

API Request

URLs

```
POST zstack/v1/volumes/{uuid}/QoS
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVolumeQos": {
    "totalBandwidth": 10000.0,
    "totalIOPS": 1000.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVolumeQos":
{"totalBandwidth":10000.0,"totalIOPS":1000.0}}' http://
localhost:8080/zstack/v1/volumes/384f99ce0b7a307685856b23f75c5167/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
volumeBand width	Long	body (contained in the params structure)	The volume bandwidth.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
mode	String	body (contained in the setVolumeQos structure)	Optional. The mode.	- total - read - write	3.1.0
readBandwidth	Long	body (contained in the setVolumeQos structure)			4.4.0
writeBandwidth	Long	body (contained in the setVolumeQos structure)			4.4.0
totalBandwidth	Long	body (contained in the setVolumeQos structure)			4.4.0
readIOPS	Long	body (contained in the setVolumeQos structure)			4.4.0
writeIOPS	Long	body (contained in the setVolumeQos structure)			4.4.0
totalIOPS	Long	body (contained in the setVolumeQos structure)	Optional.		4.4.0
systemTags	List	body	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- ZStack Cloud allows you to set the QoS read bandwidth for a volume by adding the **volumeReadBandwidth** option to **SystemTags**.
 - Format of the **volumeReadBandwidth** option: `volumeReadBandwidth::xxx`. Here, `xxx` is the read bandwidth.
 - Example: `volumeReadBandwidth::20971520`
- ZStack Cloud allows you to set the QoS write bandwidth for a volume by adding the **volumeWriteBandwidth** option to **SystemTags**.
 - Format of the **volumeWriteBandwidth** option: `volumewriteBandwidth::xxx`. Here, `xxx` is the write bandwidth.
 - Example: `vvolumewriteBandwidth::20971520`

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVolumeQoSAction action = new SetVolumeQoSAction();
action.uuid = "ac4fdd09c5884f58a5b38b805b5ddb78";
action.mode = "total";
action.volumeBandwidth = 10000.0;
action.sessionId = "aeec637635af476b94356f4f8fe714be";
```

```
SetVolumeQoSAction.Result res = action.call();
```

Python SDK

```
SetVolumeQoSAction action = SetVolumeQoSAction()
action.uuid = "26d462d809b54d52b2814bbf1302f305"
action.mode = "total"
action.volumeBandwidth = 10000.0
action.sessionId = "eb791fa4bdfb4be28ff279651cde78f9"
SetVolumeQoSAction.Result res = action.call()
```

5.1.2.17 GetVolumeQoS

API Request

URLs

```
GET zstack/v1/volumes/{uuid}/qos
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/
volumes/66adb238cf70369089b3da287e6633bb/qos
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
forceSync	Boolean	body	Optional. Whether to synchronize the data on the host.		3.3.0
systemTags	List	query	Optional.		0.6
userTags	List	query	Optional.		0.6



Note:

- ZStack Cloud allows you to obtain the QoS read bandwidth of a volume by adding the **volumeReadBandwidth** option to **SystemTags**.
 - Format of the **volumeReadBandwidth** option: `volumeReadBandwidth::xxx`. Here, xxx is the read bandwidth.
 - Example: `volumeReadBandwidth::20971520`
- ZStack Cloud allows you to obtain the QoS write bandwidth of a volume by adding the **volumeWriteBandwidth** option to **SystemTags**.
 - Format of the **volumeWriteBandwidth** option: `volumeWriteBandwidth::xxx`. Here, xxx is the write bandwidth.
 - Example: `volumeWriteBandwidth::20971520`

API Response

Sample Response

```
{
  "volumeUuid": "1dc9ff4cedae33eb84651468db5734ae",
  "volumeBandwidth": 100000.0,
  "volumeBandwidthRead": -1.0,
  "volumeBandwidthWrite": -1.0,
  "iopsTotal": -1.0,
  "iopsRead": 10000.0,
  "iopsWrite": 10000.0,
  "volumeBandwidthUpthreshold": 200000.0,
  "volumeBandwidthReadUpthreshold": -1.0,
  "volumeBandwidthWriteUpthreshold": -1.0,
  "iopsTotalUpthreshold": -1.0,
  "iopsReadUpthreshold": 20000.0,
  "iopsWriteUpthreshold": 15000.0
}
```

Name	Type	Description	Starting Version
volumeUuid	String	The volume UUID.	3.10
volumeBandwidth	long	The volume bandwidth . Default value: -1.	0.6
volumeBandwidthRead	long	The volume read bandwidth. Default value: -1.	3.10
volumeBandwidthWrite	long	The volume write bandwidth. Default value: -1.	3.10
volumeBandwidthUpthreshold	long	The volume bandwidth . Default value: -1.	3.10

Name	Type	Description	Starting Version
volumeBand widthReadUpthreshold	long	The maximum volume read bandwidth. Default value: -1.	3.10
volumeBand widthWriteUpthreshold	long	The maximum volume write bandwidth. Default value: -1.	3.10
iopsTotalUpthreshold	long	The volume IOPS. Default value: -1. This value indicates that the volume IOPS is unlimited.	4.4.0
iopsReadUpthreshold	long	The read IOPS of a volume. Default value: -1. This value indicates that the read IOPS is unlimited.	4.4.0
iopsWriteUpthreshold	long	The write IOPS of a volume. Default value: -1. This value indicates that the write IOPS is unlimited.	4.4.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVolumeQosAction action = new GetVolumeQosAction();
action.uuid = "66adb238cf70369089b3da287e6633bb";
action.forceSync = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVolumeQosAction.Result res = action.call();
```

Python SDK

```
GetVolumeQosAction action = GetVolumeQosAction()
action.uuid = "66adb238cf70369089b3da287e6633bb"
action.forceSync = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVolumeQosAction.Result res = action.call()
```

5.1.2.18 DeleteVolumeQos

API Request

URLs

```
DELETE zstack/v1/volumes/{uuid}/qos
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/volumes/
f468b0dd61c538b0bbe85327f7deadcd/qos?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
mode	String	body	Optional. The mode.	- total - read - write - all - overwrite	4.4.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6



Note:

- ZStack Cloud allows you to delete the QoS read bandwidth of a volume by adding the **volumeReadBandwidth** option to **SystemTags**.
 - Format of the **volumeReadBandwidth** option: `volumeReadBandwidth::xxx`. Here, `xxx` is the read bandwidth.
 - Example: `volumeReadBandwidth::20971520`
- ZStack Cloud allows you to delete the QoS read bandwidth of a volume by adding the **volumeWriteBandwidth** option to **SystemTags**.
 - Format of the **volumeWriteBandwidth** option: `volumewriteBandwidth::xxx`. Here, `xxx` is the write bandwidth.
 - Example: `vvolumewriteBandwidth::20971520`

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
```

```
"error": {
  "code": "SYS.1001",
  "description": "A message or a operation timeout",
  "details": "Create VM on KVM timeout after 300s"
}
```

SDK Sample

Java SDK

```
DeleteVolumeQosAction action = new DeleteVolumeQosAction();
action.uuid = "f468b0dd61c538b0bbe85327f7deadcd";
action.mode = "total";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVolumeQosAction.Result res = action.call();
```

Python SDK

```
DeleteVolumeQosAction action = DeleteVolumeQosAction()
action.uuid = "f468b0dd61c538b0bbe85327f7deadcd"
action.mode = "total"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteVolumeQosAction.Result res = action.call()
```

5.1.2.19 GetVolumeloThreadPin

API Request

URLs

```
GET zstack/v1/volumes/{uuid}/io-thread-pin
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/
volumes/93150452524b3b548cc597c8405fda21/io-thread-pin
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.7.0
userTags	List	query	Optional. The user tags.		4.7.0

API Response

Sample Response

```
{
  "volumeUuid": "a8ba696310303ccebb08e128759ecbf8",
  "pin": "3-6",
  "ioThreadId": "1"
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
volumeUuid	String	The volume UUID.	4.7.0
ioThreadId	String	The IO thread id.	4.7.0
pin	String	The CPU pinning range.	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0

Name	Type	Description	Starting Version
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
GetVolumeIoThreadPinAction action = new GetVolumeIoThreadPinAction();
action.uuid = "93150452524b3b548cc597c8405fda21";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVolumeIoThreadPinAction.Result res = action.call();
```

Python SDK

```
GetVolumeIoThreadPinAction action = GetVolumeIoThreadPinAction()
action.uuid = "93150452524b3b548cc597c8405fda21"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVolumeIoThreadPinAction.Result res = action.call()
```

5.1.2.20 SetVolumeloThreadPin

API Request

URLs

```
PUT zstack/v1/volumes/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVolumeIoThreadPin": {
    "vmUuid": "f225b0e5d5ea3c7bbc3a99fd8fc8315e",
```

```

    "pin": "3-6",
    "ioThreadId": 1
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVolumeIoThreadIdPin":
{"vmUuid":"f225b0e5d5ea3c7bbc3a99fd8fc8315e","pin":"3-6","ioThreadId":1}}'
http://localhost:8080/zstack/v1/
volumes/30603ac1c77f3e8b9358cd57dec56a54/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0
vmUuid	String	body (contained in the setVolumeIoThreadIdPin structure)	The VM instance UUID		4.7.0
pin	String	body (contained in the setVolumeIoThreadIdPin structure)	The CPU pinning range.		4.7.0
ioThreadId	int	body (contained in the setVolumeIoThreadIdPin structure)	The IO thread id.		4.7.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response

Sample Response

```
{
  "volumeUuid": "1a4f1e7372283246bd5400dc452d2937",
  "pin": "3-6",
  "ioThreadId": 1
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
volumeUuid	String	The volume UUID.	4.7.0
ioThreadId	Integer	The IO thread id.	4.7.0
pin	String	The CPU pinning range.	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0

Name	Type	Description	Starting Version
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
SetVolumeIoThreadPinAction action = new SetVolumeIoThreadPinAction();
action.uuid = "30603ac1c77f3e8b9358cd57dec56a54";
action.vmUuid = "f225b0e5d5ea3c7bbc3a99fd8fc8315e";
action.pin = "3-6";
action.ioThreadId = 1;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVolumeIoThreadPinAction.Result res = action.call();
```

Python SDK

```
SetVolumeIoThreadPinAction action = SetVolumeIoThreadPinAction()
action.uuid = "30603ac1c77f3e8b9358cd57dec56a54"
action.vmUuid = "f225b0e5d5ea3c7bbc3a99fd8fc8315e"
action.pin = "3-6"
action.ioThreadId = 1
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetVolumeIoThreadPinAction.Result res = action.call()
```

5.1.2.21 GetDataVolumeAttachableVm

API Request

URLs

```
GET zstack/v1/volumes/{volumeUuid}/candidate-vm-instances
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 2da4ab715edf474ea45825d21c7ce711" \
-X GET http://localhost:8080/zstack/v1/
volumes/2b419a8547074e098d0da9ee92935344/candidate-vm-instances
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
volumeUuid	String	url	The volume UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "237e1c010bed43288f2f158cd3b1e218",
      "name": "Test-VM",
      "description": "web server VM",
      "zoneUuid": "4537a02725fd49adb8815887fe95e38d",
      "clusterUuid": "fe33a5b88c054e94b13a8914086e50f3",
      "imageUuid": "5bed7e1839c44b4289f0eab2af35681d",
      "hostUuid": "0242f2a240564fd5bdf84bf651740129",
      "lastHostUuid": "649a873867a247b1bed6b96b61b2e19a",
      "instanceOfferingUuid": "1edf7842c7f34e00b48d3899d14a1ff2",
      "rootVolumeUuid": "2adc2350eb16479aa7b9dfdb9bc82d6a",
      "platform": "Linux",

```

```

"defaultL3NetworkUuid": "7119ed6d54ca4624aa8e362d07b03a35",
"type": "UserVm",
"hypervisorType": "KVM",
"memorySize": 8.589934592E9,
"cpuNum": 1.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Jun 7, 2017 9:20:15 PM",
"lastOpDate": "Jun 7, 2017 9:20:15 PM",
"state": "Running",
"vmNics": [
  {
    "uuid": "f967eee9618c4ee3a8cda348b333ba21",
    "vmInstanceUuid": "237e1c010bed43288f2f158cd3b1e218",
    "usedIpUuid": "ead7ed9822e64f18b2f926cb71e0b9da",
    "l3NetworkUuid": "7119ed6d54ca4624aa8e362d07b03a35",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Jun 7, 2017 9:20:15 PM",
    "lastOpDate": "Jun 7, 2017 9:20:15 PM"
  }
],
"allVolumes": [
  {
    "uuid": "2adc2350eb16479aa7b9dfdb9bc82d6a",
    "name": "Root-Volume-For-VM-237e1c010bed43288f2f158cd3b1e218",
    "primaryStorageUuid": "bdfc9aef10d48e4b028d26b09df2e35",
    "vmInstanceUuid": "237e1c010bed43288f2f158cd3b1e218",
    "diskOfferingUuid": "0319566f3f7647dbb3a8e642b05f4bfe",
    "rootImageUuid": "5bed7e1839c44b4289f0eab2af35681d",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-2adc2350eb16479aa7b9dfdb9bc82d6a/2adc2350eb16479aa7b9dfdb9bc82d6a.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Jun 7, 2017 9:20:15 PM",
    "lastOpDate": "Jun 7, 2017 9:20:15 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6

Name	Type	Description	Starting Version
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
GetDataVolumeAttachableVmAction action = new GetDataVolumeAttachableVmAction();
action.volumeUuid = "df8f99ea16c54b7f945cbf3bc3968708";
action.sessionId = "a6bd56927c384d639f6ed058226a6a87";
GetDataVolumeAttachableVmAction.Result res = action.call();
```

Python SDK

```
GetDataVolumeAttachableVmAction action = GetDataVolumeAttachableVmAction()
action.volumeUuid = "212352bd2dc64bb6b42d052ba7b55c8f"
action.sessionId = "bc975e8c54764903857ddf7e22a8fa88"
GetDataVolumeAttachableVmAction.Result res = action.call()
```

5.1.2.22 AttachDataVolumeToVm

API Request

URLs

```
POST zstack/v1/volumes/{volumeUuid}/vm-instances/{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/
v1/volumes/6fdcff5868fe376a98359eba8b3d0efe/vm-instances/
f6abc3b26ffe337ba61dd7298fb0b9df
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		0.6
volumeUuid	String	url	The volume UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "4c118c4e51e54f839e6e0af9e17527f2",
    "name": "test-volume",
    "primaryStorageUuid": "9cd9e87803864fa1ae6cf4001fb5d4c8",
    "vmInstanceUuid": "8a6f516d0da04addb062c903dd000830",
    "diskOfferingUuid": "bdb5f71d810c49a08ff0e91f81936009",
    "rootImageUuid": "a12e3048aab340c1b2c6bad2e4187a3a",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-4c118c4e51e54f839e6e0af9e17527f2/4c118c4e51e54f839e6e0af9e17527f2.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 107374182400,
    "actualSize": 21474836480,
    "deviceId": 0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Jun 7, 2017 9:20:35 PM",
    "lastOpDate": "Jun 7, 2017 9:20:35 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

Name	Type	Description	Starting Version
inventory	VolumeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6

Name	Type	Description	Starting Version
diskOfferingUuid	String	The disk offering UUID	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6
volumeQos	String		4.7.0
lastDetachDate	Timestamp		4.7.0
lastVmInstanceUuid	String		4.7.0

SDK Sample

Java SDK

```
AttachDataVolumeToVmAction action = new AttachDataVolumeToVmAction();
action.vmInstanceUuid = "255dc5614937406c9a988d9c1786b210";
action.volumeUuid = "1e54148b369b4edeb40fa355d96418f0";
action.sessionId = "f705bc797bc34ebd80690e8f154103d1";
AttachDataVolumeToVmAction.Result res = action.call();
```

Python SDK

```
AttachDataVolumeToVmAction action = AttachDataVolumeToVmAction()
action.vmInstanceUuid = "ebbc8ec209e54fc3a9872316b4d70bc6"
action.volumeUuid = "9451c035198c4e91818a0f47d6fc47c5"
action.sessionId = "4f838000320d44daa355120a7adef512"
```

```
AttachDataVolumeToVmAction.Result res = action.call()
```

5.1.2.23 DetachDataVolumeFromVm

API Request

URLs

```
DELETE zstack/v1/volumes/{uuid}/vm-instances?vmUuid={vmUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 7e5632146864445d8429d29e51dec0cb" \
-X DELETE http://localhost:8080/zstack/v1/
volumes/7beae849715345d7aa8793d1c2942279/vm-instances?
vmUuid=88d866d0c5ec303cb55cf4d4077f1987
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The volume UUID.		0.6
vmUuid	String	body	Optional. The VM instance UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "eeb5dcf6332e44cb81c190df7e6a68e9",
    "name": "test-volume",
    "primaryStorageUuid": "3d51fd1b41a5461ea1fcc7cc216e4db8",
    "vmInstanceUuid": "e64ebdc324d445d5aad979fc62eb0a0d",
    "diskOfferingUuid": "1391925279d7436cb6efd5c39c5144d1",
    "rootImageUuid": "44794b5fec4a4061b533560fbaf458e2",
```

```

"installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d
2fa65700f22e/vol-eeb5dcf6332e44cb81c190df7e6a68e9/eeb5dcf6332e44cb81c1
90df7e6a68e9.qcow2",
"type": "Root",
"format": "qcow2",
"size": 1.073741824E11,
"actualSize": 2.147483648E10,
"deviceId": 0.0,
"state": "Enabled",
"status": "Ready",
"createDate": "Jun 7, 2017 9:20:31 PM",
"lastOpDate": "Jun 7, 2017 9:20:31 PM"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VolumeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
DetachDataVolumeFromVmAction action = new DetachDataVolumeFromVmAction();
action.uuid = "a25328c5d8664e9bbfb4056561ff273b";
action.vmUuid = "a50e728336b8455e9802785ee6d81959";
action.sessionId = "b7ff5722af3e42f5ab4d0c77b8664f6c";
DetachDataVolumeFromVmAction.Result res = action.call();
```

Python SDK

```
DetachDataVolumeFromVmAction action = DetachDataVolumeFromVmAction()
action.uuid = "b23d5a96ba19477daca2429f9f181ef"
action.vmUuid = "58ab89b6a8e64a649fc38831ceaa95c8"
action.sessionId = "e97c2484efd84e0ba9f2f50a01a41d1a"
DetachDataVolumeFromVmAction.Result res = action.call()
```

5.1.2.24 AttachDataVolumeToHost

API Request

URLs

```
POST zstack/v1/volumes/{volumeUuid}/hosts/{hostUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "mountPath": "/test/mount/path"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":{"mountPath":"/test/mount/path"}}' http://localhost:8080/zstack/v1/volumes/95bd25d20dff3591a83f45280d05a67d/hosts/c7310b853b1d3e97b09e52c32bd2e9c6
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
volumeUuid	String	url	The volume UUID.		4.5.0
hostUuid	String	url	The host UUID.		4.5.0
mountPath	String	body	The mount path on the host.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AttachDataVolumeToHostAction action = new AttachDataVolumeToHostAction();
action.volumeUuid = "95bd25d20dff3591a83f45280d05a67d";
action.hostUuid = "c7310b853b1d3e97b09e52c32bd2e9c6";
action.mountPath = "/test/mount/path";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachDataVolumeToHostAction.Result res = action.call();
```

Python SDK

```
AttachDataVolumeToHostAction action = AttachDataVolumeToHostAction()
```

```

action.volumeUuid = "95bd25d20dff3591a83f45280d05a67d"
action.hostUuid = "c7310b853b1d3e97b09e52c32bd2e9c6"
action.mountPath = "/test/mount/path"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachDataVolumeToHostAction.Result res = action.call()

```

5.1.2.25 DetachDataVolumeFromHost

API Request

URLs

```
DELETE zstack/v1/volumes/{volumeUuid}/hosts
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
volumes/961e87cd9adc335eb4227d98cb835e3c/hosts

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
volumeUuid	String	url	The volume UUID.		4.5.0
hostUuid	String	body	Optional. The host UUID.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```



```
}
}
```

SDK Sample

Java SDK

```
DetachDataVolumeFromHostAction action = new DetachDataVolumeFromHostAction();
action.volumeUuid = "961e87cd9adc335eb4227d98cb835e3c";
action.hostUuid = "aab7fb71a8eb3082b11f0fe1eb6fd181";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachDataVolumeFromHostAction.Result res = action.call();
```

Python SDK

```
DetachDataVolumeFromHostAction action = DetachDataVolumeFromHostAction()
action.volumeUuid = "961e87cd9adc335eb4227d98cb835e3c"
action.hostUuid = "aab7fb71a8eb3082b11f0fe1eb6fd181"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachDataVolumeFromHostAction.Result res = action.call()
```

5.1.2.26 CreateVolumeSnapshot

API Request

URLs

```
POST zstack/v1/volumes/{volumeUuid}/volume-snapshots
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "snapshot-volume",
    "description": "a snapshot for volume"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"snapshot-volume","description":"a
snapshot for volume"}}' \
http://localhost:8080/zstack/v1/
volumes/96971a1cd12f3ebdba54578846992057/volume-snapshots
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
volumeUuid	String	url	The volume UUID.		0.6
name	String	body (contained in the params structure)	The snapshot name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the snapshot.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ec8f396d8a5d48ce8bd949d469c0be62",
    "name": "Snapshot-1",
    "description": "create-snapshot-from-volume",
    "type": "Hypervisor",
    "volumeUuid": "e60a0fb0b75743c1b0fcb017e31db043",
    "treeUuid": "b5cf59580ef443c4b7106cf755e6c572",
    "parentUuid": "cc0e37297d76486186f0dd2b61ddf4e2",
    "primaryStorageUuid": "82280d3f2f01482bbcdfef03599bcad5",
```

```

"primaryStorageInstallPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-e60a0fb0b75743c1b0fcb017e31db043/snapshots/
ec8f396d8a5d48ce8bd949d469c0be62.qcow2",
"volumeType": "Root",
"format": "qcow2",
"latest": true,
"size": 1.073741824E9,
"state": "Enabled",
"status": "Ready",
"createDate": "Jun 7, 2017 9:20:17 PM",
"lastOpDate": "Jun 7, 2017 9:20:17 PM"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VolumeSnapshotInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String		0.6
volumeUuid	String	The volume UUID.	0.6
treeUuid	String		0.6
parentUuid	String		0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
primaryStorageInstalIPath	String		0.6
volumeType	String		0.6
format	String		0.6
latest	Boolean		0.6
size	Long		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
volumeSnapshotUuid	String	The volume snapshot UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6

SDK Sample

Java SDK

```
CreateVolumeSnapshotAction action = new CreateVolumeSnapshotAction();
action.volumeUuid = "093310638cef494088eac315cf1ff1b1";
action.name = "snapshot-volume";
action.description = "a snapshot for volume";
action.sessionId = "6020beb6826b4bb5a980965b435b2998";
CreateVolumeSnapshotAction.Result res = action.call();
```

Python SDK

```
CreateVolumeSnapshotAction action = CreateVolumeSnapshotAction()
action.volumeUuid = "5321658e475a4a8d9e41eef1186a079b"
action.name = "snapshot-volume"
action.description = "a snapshot for volume"
action.sessionId = "aad13372afb149918537613c50c3f49b"
CreateVolumeSnapshotAction.Result res = action.call()
```

5.1.2.27 QueryVolumeSnapshot

API Request

URLs

```
GET zstack/v1/volume-snapshots
GET zstack/v1/volume-snapshots/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 7f983595cc744a14bb0fc9bfdd712e39" \
-X GET http://localhost:8080/zstack/v1/volume-snapshots?
q=uuid=a3da945723d44971afded91bf3ebfd4d
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 90e4d7e2760e4f1893b78be27095bb9e" \
```

```
-X GET http://localhost:8080/zstack/v1/volume-snapshots/
d8713ee3864442de8afc6cd614f51921
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVolumeSnapshot`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "492ebccdeb804e308361b08e4f0e9a7a",
      "name": "My Snapshot 2",
      "primaryStorageUuid": "/Cloud_ps/rootVolumes/acct-e77f16d460ea46e18262
547b56972273/vol-13c66bb52d0949398e520183b917f813/snapshots/2fa6979af5
c6479fa98f37d316f44b5f.qcow2",
      "volumeType": "Root",
      "format": "qcow2",
      "latest": false,
      "size": 1310720.0,
      "state": "Enabled",
      "status": "Ready"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String		0.6
volumeUuid	String	The volume UUID.	0.6
treeUuid	String		0.6
parentUuid	String		0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
primaryStorageInstallPath	String		0.6
volumeType	String		0.6
format	String		0.6
latest	Boolean		0.6
size	Long		0.6

Name	Type	Description	Starting Version
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
volumeSnapshotUuid	String	The volume snapshot UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6

SDK Sample

Java SDK

```
QueryVolumeSnapshotAction action = new QueryVolumeSnapshotAction();
action.conditions = asList("uuid=d8722eb3601448dcbbd9f4b5a93ceb0e");
action.sessionId = "007c535099cc4f2eaab878d021a9d89a";
QueryVolumeSnapshotAction.Result res = action.call();
```

Python SDK

```
QueryVolumeSnapshotAction action = QueryVolumeSnapshotAction()
action.conditions = ["uuid=b64521c0da3a462da02687c4bee1a646"]
action.sessionId = "ecd0d0d0ccbc4be9a2c42a7d7b05d924"
QueryVolumeSnapshotAction.Result res = action.call()
```

5.1.2.28 QueryVolumeSnapshotTree**API Request**

URLs

```
GET zstack/v1/volume-snapshots/trees
```



```
GET zstack/v1/volume-snapshots/trees/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 6765993e28b6428fa5715c69c93962b2" \
-X GET http://localhost:8080/zstack/v1/volume-snapshots/trees?
q=uuid=5ef4209325014bee8b2609e5f2fa3857
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 31697ae56f274658a261b666089f3891" \
-X GET http://localhost:8080/zstack/v1/volume-snapshots/
trees/60a48ac22a474922bd4e18f4a16cff6d
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVolumeSnapshotTree`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryVolumeSnapshotTreeAction action = new QueryVolumeSnapshotT
reeAction();
action.conditions = asList("uuid=f8b757fa8d354157aa83712be91c391c");
action.sessionId = "5a9d257d977543efb617d3a4619e9e10";
QueryVolumeSnapshotTreeAction.Result res = action.call();
```

Python SDK

```
QueryVolumeSnapshotTreeAction action = QueryVolumeSnapshotTreeAction()
action.conditions = ["uuid=e7a8480f474e42aeabb8e9a5c74b2c3b"]
action.sessionId = "43ac6f171e87458096fda52a497a21b2"
```

```
QueryVolumeSnapshotTreeAction.Result res = action.call()
```

5.1.2.29 UpdateVolumeSnapshot

API Request

URLs

```
PUT zstack/v1/volume-snapshots/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVolumeSnapshot": {
    "name": "My Snapshot"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVolumeSnapshot":{"name":"My Snapshot"}}' \
http://localhost:8080/zstack/v1/volume-snapshots/
df56acfb356130869fc80dbf80cf3172/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The snapshot UUID.		0.6
name	String	body (contained in the updateVolu	Optional. The new name of the snapshot.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		meSnapshot structure)			
description	String	body (contained in the updateVolumeSnapshot structure)	Optional. The detailed description of the snapshot.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a50e9be4b0eb492aa1cbb767e38ee45e",
    "name": "My Snapshot 2",
    "primaryStorageUuid": "/Cloud_ps/rootVolumes/acct-e77f16d460ea46e18262547b56972273/vol-13c66bb52d0949398e520183b917f813/snapshots/2fa6979af5c6479fa98f37d316f44b5f.qcow2",
    "volumeType": "Root",
    "format": "qcow2",
    "latest": false,
    "size": 1310720.0,
    "state": "Enabled",
    "status": "Ready"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VolumeSnapshotInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String		0.6
volumeUuid	String	The volume UUID.	0.6
treeUuid	String		0.6
parentUuid	String		0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
primaryStorageInstalIPath	String		0.6

Name	Type	Description	Starting Version
volumeType	String		0.6
format	String		0.6
latest	Boolean		0.6
size	Long		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
volumeSnapshotUuid	String	The volume snapshot UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6

SDK Sample

Java SDK

```
UpdateVolumeSnapshotAction action = new UpdateVolumeSnapshotAction();
action.uuid = "b4eadb8d20cc41e8a575c82553ec912c";
action.name = "My Snapshot";
action.sessionId = "94fb0621bb4647bb989864c845c6c22e";
UpdateVolumeSnapshotAction.Result res = action.call();
```

Python SDK

```
UpdateVolumeSnapshotAction action = UpdateVolumeSnapshotAction()
action.uuid = "e6ded156a6f440889b258d0738c517b4"
action.name = "My Snapshot"
action.sessionId = "36d4adc78a9d4c73b141095efa8c78bc"
```

```
UpdateVolumeSnapshotAction.Result res = action.call()
```

5.1.2.30 DeleteVolumeSnapshot

API Request

URLs

```
DELETE zstack/v1/volume-snapshots/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 3c050c50069f4dd48ac242bfecd8e510" \
-X DELETE http://localhost:8080/zstack/v1/volume-
snapshots/8aed13fa10114a50b227b2adf17ddba1?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
```

```
"code": "SYS.1001",
"description": "A message or a operation timeout",
"details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVolumeSnapshotAction action = new DeleteVolumeSnapshotAction();
action.uuid = "ce68d5c274274e4e8d9ce817ef88125b";
action.deleteMode = "Permissive";
action.sessionId = "8118879be81944ceb1342b9fbc8d1eda";
DeleteVolumeSnapshotAction.Result res = action.call();
```

Python SDK

```
DeleteVolumeSnapshotAction action = DeleteVolumeSnapshotAction()
action.uuid = "0665f04d54a54ab78b41f261b04a99fb"
action.deleteMode = "Permissive"
action.sessionId = "4764b21ec49848bfba76b2da27a0fe91"
DeleteVolumeSnapshotAction.Result res = action.call()
```

5.1.2.31 RevertVolumeFromSnapshot

API Request

URLs

```
PUT zstack/v1/volume-snapshots/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "revertVolumeFromSnapshot": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"revertVolumeFromSnapshot":{}}' \
http://localhost:8080/zstack/v1/volume-snapshots/
eba17ed729a03a76afb168cf41373daf/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The snapshot UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RevertVolumeFromSnapshotAction action = new RevertVolumeFromSnapshotAction();
action.uuid = "34a3c300041249d098187c2120ab0097";
action.sessionId = "a5e0822600934b84ba8bb8fa0af5bce0";
RevertVolumeFromSnapshotAction.Result res = action.call();
```

Python SDK

```
RevertVolumeFromSnapshotAction action = RevertVolumeFromSnapshotAction()
action.uuid = "f3728a6d5e324c41a98b12c067db105b"
action.sessionId = "63799306e40e486c94d31dc2fcbbee6a"
```



```
RevertVolumeFromSnapshotAction.Result res = action.call()
```

5.1.2.32 GetVolumeSnapshotSize

API Request

URLs

```
PUT zstack/v1/volume-snapshots/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "getVolumeSnapshotSize": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"getVolumeSnapshotSize":{}}' http://localhost:8080/zstack/
v1/volume-snapshots/3bd9e0b3e39a3abe8d39ccbe9031c723/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The snapshot UUID.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "size": 1.073741824E11,
  "actualSize": 5.36870912E10
}
```

Name	Type	Description	Starting Version
size	Long	The snapshot size.	3.5.0
actualSize	Long	The actual size of the snapshot.	3.5.0
success	boolean		3.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
error	ErrorCode	See error .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root	3.5.0

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

SDK Sample

Java SDK

```
GetVolumeSnapshotSizeAction action = new GetVolumeSnapshotSizeAction
();
action.uuid = "3bd9e0b3e39a3abe8d39ccbe9031c723";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVolumeSnapshotSizeAction.Result res = action.call();
```

Python SDK

```
GetVolumeSnapshotSizeAction action = GetVolumeSnapshotSizeAction()
```

```
action.uuid = "3bd9e0b3e39a3abe8d39ccbe9031c723"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVolumeSnapshotSizeAction.Result res = action.call()
```

5.1.2.33 ShrinkVolumeSnapshot

API Request

URLs

```
PUT zstack/v1/volume-snapshots/shrink/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "shrinkVolumeSnapshot": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"shrinkVolumeSnapshot":{}}' http://localhost:8080/zstack/
v1/volume-snapshots/shrink/1ab2f9f306dd3ab4adba78491be0911/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.10.0
systemTags	List	body	Optional. The system tags.		3.10.0
userTags	List	body	Optional. The user tags.		3.10.0

API Response

Sample Response

```
{
  "shrinkResult": {
    "oldSize": 2.147483648E9,
    "size": 1.073741824E9,
    "deltaSize": 1.073741824E9
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.10.0
shrinkResult	ShrinkResult	See shrinkResult .	3.10.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.10.0
description	String	The brief description of the error.	3.10.0
details	String	The details about the error.	3.10.0
elaboration	String	The reserved field. Default value: null.	3.10.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.10.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.10.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#shrinkResult

Name	Type	Description	Starting Version
oldSize	long		3.10.0
size	long		3.10.0
deltaSize	long		3.10.0

SDK Sample

Java SDK

```
ShrinkVolumeSnapshotAction action = new ShrinkVolumeSnapshotAction();
action.uuid = "1ab2f9f306dd3ab4adbaf78491be0911";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ShrinkVolumeSnapshotAction.Result res = action.call();
```

Python SDK

```
ShrinkVolumeSnapshotAction action = ShrinkVolumeSnapshotAction()
action.uuid = "1ab2f9f306dd3ab4adbaf78491be0911"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ShrinkVolumeSnapshotAction.Result res = action.call()
```

5.1.2.34 FlattenVolume

API Request

URLs

```
PUT zstack/v1/volumes/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "flattenVolume": {
    "dryRun": false
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"flattenVolume":{"dryRun":false}}' http://
localhost:8080/zstack/v1/volumes/df7876b9124d3fcb92528cf774fa6de1/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.10.0
dryRun	boolean	body (contained in the flattenVolume structure)	Optional. Trial . Predicate the data usage.		4.7.0
systemTags	List	body	Optional. The system tags.		3.10.0
userTags	List	body	Optional. The user tags.		3.10.0

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "13ff90c5fcd43587915817a65cc87af3",
    "name": "test-volume",
    "primaryStorageUuid": "55db0399efaf35479125967b5bd6e8c7",
    "vmInstanceUuid": "c3f9c1907206307a896db9a94a35c29d",
    "diskOfferingUuid": "d4d9b3afe4993bfbba991b4414295a65",
    "rootImageUuid": "7bcd79e0ed1347f9a2d4ea043bb9f37",
    "installPath": "/zstack_ps/rootVolumes/
acct-36c27e8ff05c4780bf6d2fa65700f22e/
vol-13ff90c5fcd43587915817a65cc87af3/13ff90c5fcd43587915817a65cc87af3.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 107374182400,
    "actualSize": 21474836480,
```

```

    "deviceId": 0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}

```

Name	Type	Description	Starting Version
success	boolean		4.7.0
inventory	VOLUMEInventory	See inventory .	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
name	String	The resource name.	4.7.0
description	String	The resource description.	4.7.0
primaryStorageUuid	String	The primary storage UUID.	4.7.0
vmInstanceUuid	String	The VM instance UUID.	4.7.0
diskOfferingUuid	String	The disk offering UUID.	4.7.0
rootImageUuid	String		4.7.0
installPath	String		4.7.0
type	String		4.7.0
format	String		4.7.0
size	Long		4.7.0
actualSize	Long		4.7.0
deviceId	Integer		4.7.0
state	String		4.7.0

Name	Type	Description	Starting Version
status	String		4.7.0
createDate	Timestamp	The creation date.	4.7.0
lastOpDate	Timestamp	The last operation date.	4.7.0
isShareable	Boolean		4.7.0
volumeQos	String		4.7.0
lastDetachDate	Timestamp		4.7.0
lastVmInstanceUuid	String		4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
FlattenVolumeAction action = new FlattenVolumeAction();
action.uuid = "df7876b9124d3fcb92528cf774fa6de1";
action.dryRun = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
FlattenVolumeAction.Result res = action.call();
```

Python SDK

```
FlattenVolumeAction action = FlattenVolumeAction()
action.uuid = "df7876b9124d3fcb92528cf774fa6de1"
action.dryRun = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
FlattenVolumeAction.Result res = action.call()
```

5.1.3 Image Operations

5.1.3.1 AddImage

API Request

URLs

```
POST zstack/v1/images
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "TinyLinux",
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "architecture": "x86_64",
    "system": false,
    "format": "qcow2",
    "platform": "Linux",
    "backupStorageUuids": [
      "b8fc9c1c027438c28d36af24eca06595"
    ],
    "virtio": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, the **userTags** field is optional. This field can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edfb53ca0678c" \
-X POST -d '{"params":{"name":"TinyLinux","url":"http://192.168.1.20/
share/images/
tinylinux.qcow2","mediaType":"RootVolumeTemplate","architecture":"x86_64","system
":["b8fc9c1c027438c28d36af24eca06595"],"virtio":false}}' http://
localhost:8080/zstack/v1/images
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The image name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the image.		0.6
url	String	body (contained in the params structure)	The URL of the image to be added.		0.6
mediaType	String	body (contained in the params structure)	Optional. The image type.	- RootVolumeTemplate - ISO - DataVolumeTemplate	0.6
guestOsType	String	body (contained in the params structure)	Optional. The operating system type of the guest VM instance that corresponds to the image.		0.6
system	boolean	body (contained in	Optional. Whether the		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	image is a system image , for example, vRouter image .		
format	String	body (contained in the params structure)	Optional. The image format , for example, raw.		0.6
platform	String	body (contained in the params structure)	Optional. The system platform of the image.	• Linux • Windows • WindowsVirtio • Other • Paravirtualization	0.6
backupStorageUuids	List	body (contained in the params structure)	The UUID list of the backup storages on which the image is to be added.		0.6
type	String	body (contained in the params structure)	Optional. The reserved field for internal use.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the image will use the specified value as UUID .		0.6
architecture	String	body (contained in	Optional.	• x86_64 • aarch64 • mips64el	4.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)		• loongarch64	
tagUuids	List	body (contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1eb26d06364036b7860d2b7dbb462b8c",
    "name": "TinyLinux",
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "platform": "Linux",
    "architecture": "x86_64",
    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0.0,
        "imageUuid": "1eb26d06364036b7860d2b7dbb462b8c",
        "backupStorageUuid": "902dcc8d1015318fb4903df890765c4d",
        "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe694b182ebffd",
        "status": "Ready"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

Name	Type	Description	Starting Version
inventory	ImageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The state of the image.	0.6
status	String	The status of the image.	0.6

Name	Type	Description	Starting Version
size	Long	The image size.	0.6
actualSize	Long	The actual size of the image.	0.6
md5Sum	String	The MD5 checksum of the image.	0.6
url	String	The URL of the image.	0.6
mediaType	String	The image type.	0.6
guestOsType	String	The guest operating system type of the image.	0.6
type	String	The reserved field.	0.6
platform	String	The system platform of the image.	0.6
architecture	String	The image architecture.	5.0.0
format	String	The image format, for example, raw.	0.6
system	Boolean	Whether the image is a system image.	0.6
virtio	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6

Name	Type	Description	Starting Version
exportUrl	String		0.6
exportMd5Sum	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
AddImageAction action = new AddImageAction();
action.name = "TinyLinux";
action.url = "http://192.168.1.20/share/images/tinylinux.qcow2";
action.mediaType = "RootVolumeTemplate";
action.architecture = "x86_64";
action.system = false;
action.format = "qcow2";
action.platform = "Linux";
action.backupStorageUuids = asList("b8fc9c1c027438c28d36af24eca06595");
action.virtio = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddImageAction.Result res = action.call();
```

Python SDK

```
AddImageAction action = AddImageAction()
action.name = "TinyLinux"
action.url = "http://192.168.1.20/share/images/tinylinux.qcow2"
action.mediaType = "RootVolumeTemplate"
action.architecture = "x86_64"
action.system = false
action.format = "qcow2"
action.platform = "Linux"
action.backupStorageUuids = [b8fc9c1c027438c28d36af24eca06595]
action.virtio = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
AddImageAction.Result res = action.call()
```

5.1.3.2 DeleteImage

API Request

URLs

```
DELETE zstack/v1/images/{uuid}?
backupStorageUuids={backupStorageUuids}&deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "backupStorageUuids": [
      "2499cd48fc33450a8737efff67ccb920"
    ],
    "deleteMode": "Permissive"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth fb8be86094544022ad3e3abd0027b420" \
-X DELETE http://localhost:8080/zstack/v1/images/
f92e888c970c4f739d91e59f6dd94b1e?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The image UUID.		0.6
backupStorageUuids	List	body	Optional. The backup		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			storage UUID list.		
deleteMode	String	body	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteImageAction action = new DeleteImageAction();
action.uuid = "22850dff70934ffdaa839a950cb5a470";
action.backupStorageUuids = asList("32974c8955cd4ed79d13458e41490883");
action.deleteMode = "Permissive";
action.sessionId = "517a458b87ca49cf80bf26e6000bc611";
DeleteImageAction.Result res = action.call();
```

Python SDK

```
DeleteImageAction action = DeleteImageAction()
action.uuid = "5bbd892e048b48b283e5d2f49a6a4e94"
action.backupStorageUuids = [fd127191bf504e3daf5292800c1ea2d8]
action.deleteMode = "Permissive"
action.sessionId = "cf5cf2689379496aaa4449fd14dc8330"
```

```
DeleteImageAction.Result res = action.call()
```

5.1.3.3 ExpungeImage

API Request

URLs

```
PUT zstack/v1/images/{imageUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "expungeImage": {
    "backupStorageUuids": [
      "ef3843bdde80427e9c8c0d4f05aa5cde"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"expungeImage":{"backupStorageUuids":
["3be136c8d8b8323bb94b8464aae4b0a7"]}}' \
http://localhost:8080/zstack/v1/
images/4dcddfadcd113b5f89f181c4f4a080c7/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
Uuid	String	body (contained in the params structure)	The resource UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
imageUuid	String	url	The image UUID.		0.6
backupStorageUuids	List	body (contained in the params structure)	Optional. The backup storage UUID list.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ExpungeImageAction action = new ExpungeImageAction();
action.imageUuid = "ddb63556ae714ee78bf468d5067beedd";
action.backupStorageUuids = asList("6f21a1307fb24117a25ed907c00a3e47");
action.sessionId = "b12c879167d3459a844b6ac1f8ff3b74";
ExpungeImageAction.Result res = action.call();
```

Python SDK

```
ExpungeImageAction action = ExpungeImageAction()
action.imageUuid = "59fcc3775336469facfd93c5c16bdb2d"
action.backupStorageUuids = ["2dfcf2dfadb14022ac09172a82fb3aac"]
action.sessionId = "11fe68c420514cb0a8d8e1d1c5755d11"
```

```
ExpungeImageAction.Result res = action.call()
```

5.1.3.4 QueryImage

API Request

URLs

```
GET zstack/v1/images
GET zstack/v1/images/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth ecf1dc42b51d4c7c8f814bd10ac0ba79" \
-X GET http://localhost:8080/zstack/v1/images?
q=uuid=0538611eb03a48e0bbcf08e528f0aa1
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 69e2477d74ae4b53a19b21ee6e88f9da" \
-X GET http://localhost:8080/zstack/v1/
images/21897673f8274d319c4aeba92e8e4c73
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryImage`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "actualSize": 7995392,
      "backupStorageRefs": [
        {
          "backupStorageUuid": "bbc730b63081460198c1
c7cb63025255",
          "createDate": "Mar 10, 2018 2:35:09 PM",
          "imageUuid": "2402b660b6f1582bb65246597b2f47f2",
          "installPath": "zstore://2402b660b6f1582bb652
46597b2f47f2/2ab567b512cc696f2207cf0e3260baa4982e1c02",
          "lastOpDate": "Mar 10, 2018 2:35:09 PM",
          "status": "Ready"
        }
      ],
      "createDate": "Mar 10, 2018 2:35:09 PM",
      "description": "",
      "format": "qcow2",
```

```

        "lastOpDate": "Mar 10, 2018 2:35:10 PM",
        "md5Sum": "f0fde821df71aaec63063bef1fb0a46a231e5a3fbb37ed5671eabee7563eb3f8",
        "mediaType": "RootVolumeTemplate",
        "name": "Image-1",
        "platform": "Linux",
        "size": 12682240,
        "state": "Enabled",
        "status": "Ready",
        "system": false,
        "type": "zstack",
        "url": "file:///opt/zstack-dvd/zstack-image-1.4.qcow2",
        "uuid": "2402b660b6f1582bb65246597b2f47f2"
    },
    ],
    "success": true
}

```

SDK Sample

Java SDK

```

QueryImageAction action = new QueryImageAction();
action.conditions = asList("uuid=02928c0d94a847b0b785bc9830f931c6");
action.sessionId = "512102357b3e44c7a1704240176c8661";
QueryImageAction.Result res = action.call();

```

Python SDK

```

QueryImageAction action = QueryImageAction()
action.conditions = ["uuid=4d4b95071b09499e9e15a206714d1586"]
action.sessionId = "893c8fe44f5b4b799b095c54ee7ae075"
QueryImageAction.Result res = action.call()

```

5.1.3.5 RecoverImage

API Request

URLs

```
PUT zstack/v1/images/{imageUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "recoverImage": {
    "backupStorageUuids": [
      "b63989ade2194ce8b8f1823083395681"
    ]
  },
  "systemTags": [],
  "userTags": []
}

```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 5ab0e924388a44d7aa96b9e7df9d8df3" \
-X PUT -d '{"recoverImage":{"backupStorageUuids":
["29849ef8f0fe3abeb8fff5e6d947d002"]}}' \
http://localhost:8080/zstack/v1/images/
e55bb56eee93338cad8d7d1048a6b0c3/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
imageUuid	String	url	The image UUID.		0.6
backupStorageUuids	List	body (contained in the params structure)	Optional. The backup storage UUID list.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "c019173f2b5742868058049be43033a1",
    "name": "TinyLinux",
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "platform": "Linux",
    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0.0,
        "imageUuid": "c019173f2b5742868058049be43033a1",
        "backupStorageUuid": "609d29fb59ee414f90cedbc3a71038c6",

```

```

      "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe
694b182ebffd",
      "status": "Ready"
    }
  ]
}

```

Name	Type	Description	Starting Version
success	Boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ImageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The state of the image.	0.6
status	String	The status of the image.	0.6
size	Long	The image size.	0.6
actualSize	Long	The actual size of the image.	0.6
md5Sum	String	The MD5 checksum of the image.	0.6
url	String	The URL of the image.	0.6
mediaType	String	The image type.	0.6
guestOsType	String	The guest operating system type of the image.	0.6
type	String	The reserved field.	0.6
architecture	String	The image architecture.	5.0.0
platform	String	The system platform of the image.	0.6
format	String	The image format, for example, raw.	0.6
system	Boolean	Whether the image is a system image.	0.6
virtio	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String	The installation path on the backup storage.	0.6
exportUrl	String	The URL for exporting the image.	0.6
exportMd5Sum	String	The MD5 checksum of the image.	0.6
status	String	The status of the image.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
RecoverImageAction action = new RecoverImageAction();
action.imageUuid = "3220b5ea2ae24883a4eb847634e3e349";
action.backupStorageUuids = asList("ad4dcd853b894362bfd18c06779ed758");
action.sessionId = "66ba41da8526424d9ab70ed0072b8d22";
RecoverImageAction.Result res = action.call();
```

Python SDK

```
RecoverImageAction action = RecoverImageAction()
action.imageUuid = "7f8bb365b8d3413ab5d09f6d381552c3"
action.backupStorageUuids = ["14d99a1ade5a431ea254902c808d7319"]
action.sessionId = "044d56deddd849a092ff02ae54386cf1"
```

```
RecoverImageAction.Result res = action.call()
```

5.1.3.6 ChangedImageState

API Request

URLs

```
PUT zstack/v1/images/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeImageState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeImageState":{"stateEvent":"disable"}}' \
http://localhost:8080/zstack/v1/
images/5a4e7e1f1a653505925da09d0a64936b/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The image UUID.		0.6
stateEvent	String	body (contained in the params structure)	The state of the image.	- enable - disable	0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "e4891e6ef3a64ea08ce91ab379a5c856",
    "name": "TinyLinux",
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "platform": "Linux",
    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0,
        "imageUuid": "e4891e6ef3a64ea08ce91ab379a5c856",
        "backupStorageUuid": "8bf8f2f17e7c4cca8d684ae5d89eee9e",
        "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe694b182ebffd",
        "status": "Ready"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ImageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The state of the image .	0.6
status	String	The status of the image.	0.6
size	Long	The image size.	0.6
actualSize	Long	The actual size of the image.	0.6
md5Sum	String	The MD5 checksum of the image.	0.6
url	String	The URL of the image.	0.6

Name	Type	Description	Starting Version
mediaType	String	The image type.	0.6
guestOsType	String	The guest operating system type of the image.	0.6
type	String	The reserved field.	0.6
platform	String	The system platform of the image.	0.6
architecture	String	The image architecture.	5.0.0
format	String	The image format, for example, raw.	0.6
system	Boolean	Whether the image is a system image.	0.6
virtio	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6
exportUrl	String		0.6
exportMd5Sum	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
ChangeImageStateAction action = new ChangeImageStateAction();
action.uuid = "d6d3cf3feace41ae9fe519fcfdf337e1";
action.stateEvent = "disable";
action.sessionId = "e510317dfbf64f7c9423652cefba6583";
ChangeImageStateAction.Result res = action.call();
```

Python SDK

```
ChangeImageStateAction action = ChangeImageStateAction()
action.uuid = "d33d29f7695a4376a9a37a094f89d9f2"
action.stateEvent = "disable"
action.sessionId = "ae3587d0cbf844c2921a97798d4dc37b"
ChangeImageStateAction.Result res = action.call()
```

5.1.3.7 UpdateImage

API Request

URLs

```
PUT zstack/v1/images/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateImage": {
    "platform": "Windows",
    "virtio": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"updateImage":{"platform":"Windows","virtio":false}}'
http://localhost:8080/zstack/v1/
images/38549d5d5a3d3c5caefc18d8a9e0aa13/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The image UUID.		0.6
name	String	body (contained in the updateImage structure)	Optional. The image name.		0.6
description	String	body (contained in the updateImage structure)	Optional. The detailed description of the image.		0.6
guestOsType	String	body (contained in the updateImage structure)	Optional. The operating system type of the guest VM instance that corresponds to the image.		0.6
mediaType	String	body (contained in the updateImage structure)	Optional. The image type.	- RootVolume Template - DataVolume Template - ISO	0.6
architecture	String	body (contained in the updateImage structure)	Optional.	- x86_64 - aarch64 - mips64el - loongarch64	4.0.0
format	String	body (contained in the	Optional. The image format.	- raw - qcow2	0.6

Name	Type	Location	Description	Optional Value	Starting Version
		updateImage structure)		iso	
system	Boolean	body (contained in the updateImage structure)	Optional. Specifies whether the image is a system image.		0.6
platform	String	body (contained in the updateImage structure)	Optional. The system platform of the image.	- Linux - Windows - WindowsVir tio - Other - Paravirtua lization	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
virtio	Boolean	body (contained in the updateImage structure)			5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "fadea0efc22e3e6fa43f537f1af6ee6b",
    "name": "TinyLinux",
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "platform": "Windows",
    "architecture": "x86_64",
    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0.0,
        "imageUuid": "fadea0efc22e3e6fa43f537f1af6ee6b",
        "backupStorageUuid": "b94ff32725d133fea53e8ada5ea7f0fc",

```

```

      "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe
694b182ebffd",
      "status": "Ready"
    }
  ]
}

```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ImageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The state of the image.	0.6
status	String	The status of the image.	0.6
size	Long	The image size.	0.6
actualSize	Long	The actual size of the image.	0.6
md5Sum	String	The MD5 checksum of the image.	0.6
url	String	The URL of the image.	0.6
mediaType	String	The image type.	0.6
guestOsType	String	The guest operating system type of the image.	0.6
type	String	The reserved field.	0.6
platform	String	The system platform of the image.	0.6
architecture	String	The image architecture.	5.0.0
format	String	The image format, for example, raw.	0.6
system	Boolean	Whether the image is a system image.	0.6
virtio	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6
exportUrl	String		0.6
exportMd5Sum	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateImageAction action = new UpdateImageAction();
action.uuid = "38549d5d5a3d3c5caefc18d8a9e0aa13";
action.platform = "Windows";
action.virtio = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateImageAction.Result res = action.call();
```

Python SDK

```
UpdateImageAction action = UpdateImageAction()
action.uuid = "38549d5d5a3d3c5caefc18d8a9e0aa13"
action.platform = "Windows"
action.virtio = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateImageAction.Result res = action.call()
```

5.1.3.8 SyncImageSize

API Request

URLs

```
PUT zstack/v1/images/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncImageSize": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 3a29210c52824730884918d670745453" \
-X PUT -d '{"syncImageSize":{}}' \
http://localhost:8080/zstack/v1/
images/7d0fb69a716330bba16a3ee557ee0ab2/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The image UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a5288a2598074daabb0450db1eaf0e69",
    "name": "TinyLinux",
    "size": 2.097152E8,
    "actualSize": 2329057.0,
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "platform": "Linux",
    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0.0,
        "imageUuid": "a5288a2598074daabb0450db1eaf0e69",
        "backupStorageUuid": "1a917c0b47c6475a996ed678f230419d",
        "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe694b182ebffd",
        "status": "Ready"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	Boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ImageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The state of the image.	0.6
status	String	The status of the image.	0.6
size	Long	The image size.	0.6
actualSize	Long	The actual size of the image.	0.6
md5Sum	String	The MD5 checksum of the image.	0.6
url	String	The URL of the image.	0.6
mediaType	String	The image type.	0.6
guestOsType	String	The guest operating system type of the image.	0.6
type	String	The reserved field.	0.6

Name	Type	Description	Starting Version
platform	String	The system platform of the image.	0.6
architecture	String	The image architecture.	5.0.0
format	String	The image format, for example, raw.	0.6
system	Boolean	Whether the image is a system image.	0.6
virtio	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6
exportUrl	String		0.6
exportMd5Sum	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
SyncImageSizeAction action = new SyncImageSizeAction();
action.uuid = "46638764dfcb47b2bf916bce60d50f9f";
action.sessionId = "557e2989aa7d4178861c4fcacb85e40c";
```



```
SyncImageSizeAction.Result res = action.call();
```

Python SDK

```
SyncImageSizeAction action = SyncImageSizeAction()
action.uuid = "0073e30d1fd84cd0b47896e5bb22b205"
action.sessionId = "e6896c8311824d718e330908ec04d9a6"
SyncImageSizeAction.Result res = action.call()
```

5.1.3.9 DeleteImagePackage

API Request

URLs

```
DELETE zstack/v1/image-packages/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/image-packages/
e7660c815f483befb15905bf6c776781?
```

Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.4.6
deleteMode	String	body	Optional. The deletion mode.	• Permissive • Enforcing	4.4.6
systemTags	List	body	Optional. The system tags.		4.4.6
userTags	List	body	Optional. The user tags.		4.4.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteImagePackageAction action = new DeleteImagePackageAction();
action.uuid = "e7660c815f483befb15905bf6c776781";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteImagePackageAction.Result res = action.call();
```

Python SDK

```
DeleteImagePackageAction action = DeleteImagePackageAction()
action.uuid = "e7660c815f483befb15905bf6c776781"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteImagePackageAction.Result res = action.call()
```

5.1.3.10 QueryImagePackage

API Request

URLs

```
GET zstack/v1/image-packages
```

```
GET zstack/v1/image-packages/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/image-packages?
q=uuid=7cd2f1b456ce3045b78d3c1eb58cc03d
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/image-
packages/1c57c91becf431f3b098800fc900c708
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryImage`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "e97e03503a5d3bf19a23f91c9a79e009",
      "name": "ova",
      "description": "description",
      "vmUuid": "b3da643979eb3452abbeb978208cb672",
      "backupStorageUuid": "6185f4e18a993ece84a06ec8c469b530",
      "state": "Exported",
      "exportUrl": "http://bs-host-name/path/to/ova.ova",
      "md5Sum": "sampleMd5Sum",
      "format": "OVA",
      "size": 1.073741824E10,
      "createDate": "May 10, 2022 5:26:20 AM",
      "lastOpDate": "May 10, 2022 5:26:20 AM"
    }
  ]
}
```

Name	Type	Location	Description
success	boolean		4.4.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.4.6
inventories	List	See inventories .	4.4.6

#error

Name	Type	Location	Description
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	4.4.6

Name	Type	Location	Description
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.4.6
details	String	The details about the error.	4.4.6
elaboration	String	The reserved field. Default value: null.	4.4.6
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.6
name	String	The resource name.	4.4.6
description	String	The resource description.	4.4.6
vmUuid	String	The source VM UUID.	4.4.6
backupStorageUuid	String	The backup storage UUID.	4.4.6
exportUrl	String	The download address .	4.4.6
md5Sum	String	The MD5 sum of the image package.	4.4.6
format	String	The image package format.	4.4.6
size	Long	The image package size.	4.4.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation time.	4.4.6
lastOpDate	Timestamp	The last operation time	4.4.6
state	ImagePackageState	See state .	4.4.6

#state

Name	Type	Description	Starting Version
Exporting	ImagePackageState	The image package is exporting.	4.4.6
Exported	ImagePackageState	The image package is exported.	4.4.6

SDK Sample

Java SDK

```
QueryImagePackageAction action = new QueryImagePackageAction();
action.conditions = asList("uuid=5319396fe8f0393d998ac6c0939e780e");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryImagePackageAction.Result res = action.call();
```

Python SDK

```
QueryImagePackageAction action = QueryImagePackageAction()
action.conditions = ["uuid=99435bfd7903372289db27c8a2b1038c"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryImagePackageAction.Result res = action.call()
```

5.1.3.11 UpdateImagePackage**API Request**

URLs

```
PUT zstack/v1/image-packages/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateImagePackage": {
    "name": "ova-update",
```

```

    "description": "description-update"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, the **userTags** field is optional. This field can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/image-packages/
eeed157556d2328c9c3aeeec71ab75463

```

Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.4.6
name	String	body(contained in the updateImagePackage structure)	Optional. The resource name.		4.4.6
description	String	body(contained in the updateImagePackage structure)	Optional. The resource description.		4.4.6
systemTags	List	body	Optional. The system tags.		4.4.6
userTags	List	body	Optional. The user tags.		4.4.6

API Response**Sample Response**

```

{
  "inventory": {
    "uuid": "ecdea1f236a13e74a5712edabb4cfe9e",

```

```

"name": "ova",
"description": "description",
"vmUuid": "21c4183acbf737128aba034313e1f909",
"backupStorageUuid": "99630920a09138ab93823380286efc57",
"state": "Exported",
"exportUrl": "http://bs-host-name/path/to/ova.ova",
"md5Sum": "sampleMd5Sum",
"format": "OVA",
"size": 1.073741824E10,
"createDate": "May 10, 2022 5:27:16 AM",
"lastOpDate": "May 10, 2022 5:27:16 AM"
}
}

```

Name	Type	Description	Starting Version
success	boolean		4.4.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.4.6
inventory	ImagePackageInventory	See inventory .	4.4.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.6
description	String	The brief description of the error.	4.4.6
details	String	The details about the error.	4.4.6
elaboration	String	The reserved field. Default value: null.	4.4.6
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.6
cause	ErrorCode	The root error, which is the associated root cause of the current	4.4.6

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.6
name	String	The resource name.	4.4.6
description	String	The resource description.	4.4.6
vmUuid	String	The source VM UUID.	4.4.6
backupStorageUuid	String	The backup storage UUID.	4.4.6
exportUrl	String	The download address .	4.4.6
md5Sum	String	The MD5 sum of the image package.	4.4.6
format	String	The image package format.	4.4.6
size	Long	The image package size.	4.4.6
createDate	Timestamp	The creation time.	4.4.6
lastOpDate	Timestamp	The last operation time .	4.4.6
state	ImagePackageState	See state .	4.4.6

#state

Name	Type	Description	Starting Version
Exporting	ImagePackageState	The image package is exporting.	4.4.6
Exported	ImagePackageState	The image package is exported.	4.4.6

SDK Sample

Java SDK

```
QueryImagePackageAction action = new QueryImagePackageAction();
action.conditions = asList("uuid=5319396fe8f0393d998ac6c0939e780e");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryImagePackageAction.Result res = action.call();
```

Python SDK

```
QueryImagePackageAction action = QueryImagePackageAction()
action.conditions = ["uuid=99435bfd7903372289db27c8a2b1038c"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryImagePackageAction.Result res = action.call()
```

5.1.3.12 GetCandidateBackupStorageForCreatingImage

API Request

URLs

```
GET zstack/v1/images/volumes/{volumeUuid}/candidate-backup-storage
GET zstack/v1/images/volume-snapshots/{volumeSnapshotUuid}/candidate-backup-storage
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 146b6ded7a9744068ba57b87ca1bd0c0" \
-X GET http://localhost:8080/zstack/v1/images/
volumes/1e816db3824f489a944f1f6c6beb83cc/candidate-backup-storage?\
volumeUuid=1e816db3824f489a944f1f6c6beb83cc&volumeSnapshotUuid=223f7f53ce544036a9
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth dcd0948b7a90449ba8b09270ad3041d2" \
-X GET http://localhost:8080/zstack/v1/images/volume-
snapshots/98fcb829c80a4b08b700fb3e43c2d8ce/candidate-backup-storage?\
volumeUuid=17d1d7becabf4800937b23d2f505a56d&volumeSnapshotUuid=98fcb829c80a4b08b7
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
volumeUuid	String	query	Optional. The volume UUID. Make		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			sure that at least one of volumeUuid and volumeSnap shotUuid is not null.		
volumeSnap shotUuid	String	query	Optional. The volume snapshot UUID. Make sure that at least one of volumeUuid and volumeSnap shotUuid is not null.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
GetCandidateBackupStorageForCreatingImageAction action = new
GetCandidateBackupStorageForCreatingImageAction();
action.volumeUuid = "77e77779b5f94617af0a8b08b4a50129";
```

```
action.volumeSnapshotUuid = "4a5220b5b1f044f8826520eb506d0f98";
action.sessionId = "45b0a87571c2476ba2fe6623daaa79cf";
GetCandidateBackupStorageForCreatingImageAction.Result res = action.
call();
```

Python SDK

```
GetCandidateBackupStorageForCreatingImageAction action = GetCandida
teBackupStorageForCreatingImageAction()
action.volumeUuid = "83792660358b4e14b266c5d0920b8b21"
action.volumeSnapshotUuid = "3d562e4325cc42ce8bd3115b48f79ae4"
action.sessionId = "2ba3d333ac284a20adc782766f597330"
GetCandidateBackupStorageForCreatingImageAction.Result res = action.
call();
```

5.1.3.13 CreateRootVolumeTemplateFromRootVolume

API Request

URLs

```
POST zstack/v1/images/root-volume-templates/from/volumes/
{rootVolumeUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "My Root Volume Template",
    "backupStorageUuids": [
      "e67b9791a8204b31842c3b36457ce56c"
    ],
    "platform": "Linux",
    "system": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"My Root Volume
Template","backupStorageUuids":
```

```
[ "a3cb55d45fb63d1da4911b9d16273a55" ], "platform": "Linux", "system": false } }'
\
http://localhost:8080/zstack/v1/images/root-volume-templates/from/
volumes/3bfc6f9eaf243299b8515382310be47b
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the root volume image.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the root volume image.		0.6
guestOsType	String	body (contained in the params structure)	Optional. The operating system type of the guest VM instance that corresponds to the root volume image.		0.6
backupStorageUuids	List	body (contained in the params structure)	Optional. The backup storage UUID list.		0.6
rootVolumeUuid	String	body (contained in the params structure)	The root volume UUID.		0.6
platform	String	body (contained in the params structure)	Optional. The system platform of the root volume image.	- Linux - Windows - WindowsVirtio - Other - Paravirtualization	0.6

Name	Type	Location	Description	Optional Value	Starting Version
system	boolean	body (contained in the params structure)	Optional. Whether the root volume image is a system root volume image.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the root volume image. If specified, the root volume image will use the specified value as UUID.		0.6
architecture	String	body (contained in the params structure)	Optional.	- x86_64 - aarch64 - mips64el	4.0.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
virtio	List	body (contained in the params structure)	Optional.		5.0.0

**Note:**

- When you create an image from a root volume, ZStack Cloud copies the value of the GuestTools tag from VM instance to image. When you use this image to create a VM instance, the value of the GuestTools tag will be copied from the image to the target VM instance. Note that you can add the **GuestTools** option to **SystemTags**.

- Format of the **GuestTools** option: `GuestTools::TOOLS_VERSION`. Here, the initial value of `TOOLS_VERSION` is 1.0.0. This value will change as the version of GuestTools is upgraded.
- Example: `GuestTools::1.0.0`
- Note: When you create an image from the root volume of a VM instance, the value of the GuestTools tag will be copied from the VM instance to the target image.

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "fadea0efc22e3e6fa43f537f1af6ee6b",
    "name": "TinyLinux",
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "platform": "Windows",
    "architecture": "x86_64",
    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0,
        "imageUuid": "fadea0efc22e3e6fa43f537f1af6ee6b",
        "backupStorageUuid": "b94ff32725d133fea53e8ada5ea7f0fc",
        "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe694b182ebffd",
        "status": "Ready"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	Boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ImageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	0.6

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The state of the image .	0.6
status	String	The status of the image.	0.6
size	Long	The image size.	0.6
actualSize	Long	The actual size of the image.	0.6
md5Sum	String	The MD5 checksum of the image.	0.6
url	String	The URL of the image.	0.6

Name	Type	Description	Starting Version
mediaType	String	The image type.	0.6
guestOsType	String	The guest operating system type of the image.	0.6
type	String	The reserved field.	0.6
platform	String	The system platform of the image.	0.6
architecture	String	The image architecture.	5.0.0
format	String	The image format, for example, raw.	0.6
system	Boolean	Whether the image is a system image.	0.6
virtio	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6
exportUrl	String		0.6
exportMd5Sum	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
CreateRootVolumeTemplateFromRootVolumeAction action = new CreateRootVolumeTemplateFromRootVolumeAction();
action.name = "My Root Volume Template";
action.backupStorageUuids = asList("76fc4abc5650483fa1b2028fcd6ac64d");
action.rootVolumeUuid = "f368c5b20a0a4ab08ffe4e94f535ffb5";
action.platform = "Linux";
action.system = false;
action.sessionId = "50f84f52a23342a4aab43f2288a187dc";
CreateRootVolumeTemplateFromRootVolumeAction.Result res = action.call();
```

Python SDK

```
CreateRootVolumeTemplateFromRootVolumeAction action = CreateRootVolumeTemplateFromRootVolumeAction()
action.name = "My Root Volume Template"
action.backupStorageUuids = [f9dc4b8cc4254836ae46713b88e1e763]
action.rootVolumeUuid = "c89cf9d298084680a0240b49015806a6"
action.platform = "Linux"
action.system = false
action.sessionId = "ca2d794d080a4686adf31758d82926c8"
CreateRootVolumeTemplateFromRootVolumeAction.Result res = action.call()
```

5.1.3.14 CreateRootVolumeTemplateFromVolumeSnapshot

API Request

URLs

```
POST zstack/v1/images/root-volume-templates/from/volume-snapshots/{snapshotUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "My Root Volume Template",
    "backupStorageUuids": [
      "0d793ede7b47471cbd53eb38ce890e79"
    ],
    "system": false
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"backupStorageUuid":"e0911cc720ea3583b21ad79892632f1a","name":"template","description":"template from volume backup","system":false}}' \
http://localhost:8080/zstack/v1/images/data-volume-templates/from/
volume-template/0c809415d427345983de1123c5be1dfb
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
snapshotUuid	String	url	The snapshot UUID.		0.6
name	String	body (contained in the params structure)	The name of the root volume image.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the root volume image.		0.6
guestOsType	String	body (contained in the params structure)	Optional. The operating system type of the guest VM instance that corresponds to the root volume image.		0.6
backupStorageUuids	List	body (contained in the params structure)	The backup storage UUID list.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
platform	String	body (contained in the params structure)	Optional. The operating system platform of the root volume image.	- Linux - Windows - WindowsVirtio - Other - Paravirtualization	0.6
system	boolean	body (contained in the params structure)	Optional. Whether the root volume image is a system root volume image.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the root volume image. If specified, the root volume image will use the specified value as UUID.		0.6
architecture	String	body (contained in the params structure)	Optional.	- x86_64 - aarch64 - mips64el	4.0.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "200e14e0f67d4b7a87fbaa6821c3a250",
    "name": "My Root Volume Template",
    "mediaType": "RootVolumeTemplate",
    "platform": "Linux",
    "format": "raw",
    "backupStorageRefs": [
      {
        "id": 0,
        "imageUuid": "200e14e0f67d4b7a87fbaa6821c3a250",
        "backupStorageUuid": "9b24855411df4652a521ca4d1d4e86f2",
        "installPath": "ceph://zs-images/0cd599ec519249489475112a058bb93a",
        "status": "Ready"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	Boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ImageInventory	See inventory .	0.6
failures	List	See failures .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The state of the image.	0.6
status	String	The status of the image.	0.6
size	Long	The image size.	0.6
actualSize	Long	The actual size of the image.	0.6
md5Sum	String	The MD5 checksum of the image.	0.6
url	String	The URL of the image.	0.6
mediaType	String	The image type.	0.6
guestOsType	String	The guest operating system type of the image.	0.6
type	String	The reserved field.	0.6

Name	Type	Description	Starting Version
platform	String	The system platform of the image.	0.6
architecture	String	The image architecture.	5.0.0
format	String	The image format, for example, raw.	0.6
system	Boolean	Whether the image is a system image.	0.6
virtio	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6
exportUrl	String		0.6
exportMd5Sum	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#failures

Name	Type	Description	Starting Version
backupStorageUuid	String	The backup storage UUID.	0.6

Name	Type	Description	Starting Version
error	ErrorCode	See error .	0.6

SDK Sample

Java SDK

```
CreateRootVolumeTemplateFromVolumeSnapshotAction action = new
CreateRootVolumeTemplateFromVolumeSnapshotAction();
action.snapshotUuid = "5d10e4111e0c44f58ee13d3584110c8d";
action.name = "My Root Volume Template";
action.backupStorageUuids = asList("49a984343c554f6aa9cac7b038494f5d
");
action.system = false;
action.sessionId = "bac023f582c24fc9af1097392ce1d12b";
CreateRootVolumeTemplateFromVolumeSnapshotAction.Result res = action.
call();
```

Python SDK

```
CreateRootVolumeTemplateFromVolumeSnapshotAction action = CreateRoot
VolumeTemplateFromVolumeSnapshotAction()
action.snapshotUuid = "6dd726f9727a4358ab2aaf8cdd4675d3"
action.name = "My Root Volume Template"
action.backupStorageUuids = [c653cb53d5154a48b53d95a36e7dbae6]
action.system = false
action.sessionId = "edd92cba4301455fb15532b8bbf43459"
CreateRootVolumeTemplateFromVolumeSnapshotAction.Result res = action.
call()
```

5.1.3.15 CreateDataVolumeTemplateFromVolume

API Request

URLs

```
POST zstack/v1/images/data-volume-templates/from/volumes/{volumeUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "My Data Volume Template",
    "backupStorageUuids": [
      "7fd08286addc4b388fac61935892acd7"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"My Data Volume
Template","backupStorageUuids":
["08e337886b873e8685991d1c7ba4d1ab"]}}' \
http://localhost:8080/zstack/v1/images/data-volume-templates/from/
volumes/4c941eb9faeb3976803f3609a475
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the data volume image.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the data volume image.		0.6
volumeUuid	String	body (contained in the params structure)	The UUID of the volume from which the data volume image is to be created.		0.6
backupStorageUuids	List	body (contained in the params structure)	Optional. The backup storage UUID list.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the data volume image. If		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			specified, the data volume image will use the specified value as UUID.		
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7247cf569e2b4104832071822cf845c5",
    "name": "My Data Volume Template",
    "mediaType": "DataVolumeTemplate",
    "platform": "Linux",
    "format": "raw",
    "backupStorageRefs": [
      {
        "id": 0,
        "imageUuid": "7247cf569e2b4104832071822cf845c5",
        "backupStorageUuid": "1b8ab68b7e224a30aa31f00f1db2b5a6",
        "installPath": "ceph://zs-data-volume/0cd599ec519249489475112a058bb93a",
        "status": "Ready"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	Boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	
inventory	ImageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The state of the image.	0.6

Name	Type	Description	Starting Version
status	String	The status of the image.	0.6
size	Long	The image size.	0.6
actualSize	Long	The actual size of the image.	0.6
md5Sum	String	The MD5 checksum of the image.	0.6
url	String	The URL of the image.	0.6
mediaType	String	The image type.	0.6
guestOsType	String	The guest operating system type of the image.	0.6
type	String	The reserved field.	0.6
platform	String	The system platform of the image.	0.6
architecture	String	The image architecture.	5.0.0
format	String	The image format, for example, raw.	0.6
system	Boolean	Whether the image is a system image.	0.6
virtio	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6

Name	Type	Description	Starting Version
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String		0.6
exportUrl	String		0.6
exportMd5Sum	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
CreateDataVolumeTemplateFromVolumeAction action = new CreateDataVolumeTemplateFromVolumeAction();
action.name = "My Data Volume Template";
action.volumeUuid = "816fb7184ae2498189000d7c0fe66112";
action.backupStorageUuids = asList("26b9d22ef1af4bdb880c3d77a8b1feda");
action.sessionId = "c17620d57db14c9383fbdd2650c80a73";
CreateDataVolumeTemplateFromVolumeAction.Result res = action.call();
```

Python SDK

```
CreateDataVolumeTemplateFromVolumeAction action = CreateDataVolumeTemplateFromVolumeAction()
action.name = "My Data Volume Template"
action.volumeUuid = "38b644a29b2d498ebc5b50d1d212d904"
action.backupStorageUuids = ["1954c35eb0a844d8bb6a64f9963be0f5"]
action.sessionId = "343ff2f080414010adb1a35957f8b700"
```

```
CreateDataVolumeTemplateFromVolumeAction.Result res = action.call()
```

5.1.3.16 CreateDataVolumeTemplateFromVolumeSnapshot

API Request

URLs

```
POST zstack/v1/images/data-volume-templates/from/volume-snapshots/
{snapshotUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "My Data Volume Template",
    "backupStorageUuids": [
      "dbf107f8efa531f786f243850499e010"
    ],
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"My Data Volume
Template","backupStorageUuids":
["dbf107f8efa531f786f243850499e010"]}}' \
http://localhost:8080/zstack/v1/images/data-volume-templates/from/
volume-snapshots/58976137bf95309692762077cd7077e3
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
snapshotUuid	String	url	The snapshot UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the data volume image.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the data volume image.		0.6
backupStorageUuids	List	body (contained in the params structure)	The backup storage UUID list.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the data volume image. If specified, the data volume image will use the specified value as UUID.		0.6
tagUuids	List	body (contained in the params structure)	The tag UUID list.		
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The system tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "314d80c2feb5352c984b3ffd36108c32",
    "name": "My Data Volume Template",
```

```

"mediaType": "DataVolumeTemplate",
"platform": "Linux",
"format": "raw",
"backupStorageRefs": [
  {
    "id": 0.0,
    "imageUuid": "314d80c2feb5352c984b3ffd36108c32",
    "backupStorageUuid": "d861144baadf31e3b1cbbb282242adcf",
    "installPath": "ceph://zs-images/0cd599ec519249489475
112a058bb93a",
    "status": "Ready"
  }
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ImageInventory	See inventory .	0.6
failures	List	See failures .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root	0.6

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The state of the image.	0.6
status	String	The status of the image.	0.6
size	Long	The size of the image.	0.6
actualSize	Long	The actual size of the image.	0.6
md5Sum	String	The MD5 checksum value of the image.	0.6
url	String	The URL of the image.	0.6
mediaType	String	The type of the image.	0.6
guestOsType	String	The type of the guest operating system that corresponds to the image.	0.6
type	String	The reserved field for internal use.	0.6
platform	String	The operating system platform of the image.	0.6
architecture	String	The image architecture.	5.0.0
format	String	The image format, for example, raw.	0.6

Name	Type	Description	Starting Version
system	Boolean	Whether the image is a system image.	0.6
virtio	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageRefs	List	See backupStorageRefs .	0.6

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
installPath	String	The path to install the image on the backup storage.	0.6
exportUrl	String	The URL of the exported image.	0.6
exportMd5Sum	String	The MD5 checksum value of the exported image.	0.6
status	String	The status of the image.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#failures

Name	Type	Description	Starting Version
backupStorageUuid	String	The backup storage UUID.	0.6
error	ErrorCode	See error .	0.6

SDK Sample

Java SDK

```
CreateDataVolumeTemplateFromVolumeSnapshotAction action = new
CreateDataVolumeTemplateFromVolumeSnapshotAction();
action.snapshotUuid = "58976137bf95309692762077cd7077e3";
action.name = "My Data Volume Template";
action.backupStorageUuids = asList("dbf107f8efa531f786f243850499e010
");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateDataVolumeTemplateFromVolumeSnapshotAction.Result res = action.
call();
```

Python SDK

```
CreateDataVolumeTemplateFromVolumeSnapshotAction action = CreateData
VolumeTemplateFromVolumeSnapshotAction()
action.snapshotUuid = "58976137bf95309692762077cd7077e3"
action.name = "My Data Volume Template"
action.backupStorageUuids = [dbf107f8efa531f786f243850499e010]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateDataVolumeTemplateFromVolumeSnapshotAction.Result res = action.
call()
```

5.1.3.17 GetImageQga

API Request

URLs

```
GET zstack/v1/images/{uuid}/qga
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e74211f026f741c1898d4377ecf58bd1" \
-X GET http://localhost:8080/zstack/v1/
images/34a5bf0cc1014286bd944771c77e1c07/qga
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "enable": false
}
```

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
enable	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetImageQgaAction action = new GetImageQgaAction();
action.uuid = "0d7b698ccb174702ae5fa7f15bce8612";
action.sessionId = "3e59586b589d4dbeb0afd078bb887655";
GetImageQgaAction.Result res = action.call();
```

Python SDK

```
GetImageQgaAction action = GetImageQgaAction()
action.uuid = "82a89e52f2c54fab9b73f095e23ddecb"
action.sessionId = "fc8ea8bda61143cea7db98957ccd026f"
GetImageQgaAction.Result res = action.call()
```

5.1.3.18 SetImageQga

API Request

URLs

```
PUT zstack/v1/images/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setImageQga": {
    "enable": true
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setImageQga":{"enable":true}}' \
http://localhost:8080/zstack/v1/images/
f85a077c64883070ac3ba72079edc804/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
enable	boolean	body (contained in the setImageQga structure)			0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
SetImageQgaAction action = new SetImageQgaAction();
action.uuid = "0eca41aa133a43d2b8d14958cd3b3f26";
action.enable = true;
action.sessionId = "a05d7d13fb514bb5bd16060c7584d6e6";
SetImageQgaAction.Result res = action.call();
```

Python SDK

```
SetImageQgaAction action = SetImageQgaAction()
action.uuid = "f397649bf07049efb0be7836962d03fe"
action.enable = true
action.sessionId = "0bfcd0ef201142bcb00ab5903b178da5"
SetImageQgaAction.Result res = action.call()
```

5.1.3.19 SetImageBootMode

API Request

URLs

```
PUT zstack/v1/images/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setImageBootMode": {
    "bootMode": "Legacy"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"setImageBootMode":{"bootMode":"Legacy"}}' http://localhost:8080/zstack/v1/images/4efcba4c12cc35f4a1b262038f7e7b80/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.9.0
bootMode	String	body(contained in the setImageBootMode structure)	The image boot mode.	- Legacy - UEFI - UEFI_WITH_CSM	3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetImageBootModeAction action = new SetImageBootModeAction();
action.uuid = "4efcba4c12cc35f4a1b262038f7e7b80";
action.bootMode = "Legacy";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetImageBootModeAction.Result res = action.call();
```

Python SDK

```
SetImageBootModeAction action = SetImageBootModeAction()
action.uuid = "4efcba4c12cc35f4a1b262038f7e7b80"
action.bootMode = "Legacy"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
setImageBootModeAction.Result res = action.call()
```

5.1.3.20 GetUploadImageJobDetails

API Request

URLs

```
PUT zstack/v1/images/upload-job/details/{imageId}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setImageBootMode": {
    "bootMode": "Legacy"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/images/upload-job/details/
d41d8cd98f00b204e9800998ecf8427e?
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
imageId	String	url	The user-defined image ID. We recommend that you use an MD5 value.		4.1.0

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "existingJobDetails": [
    {
      "longJobUuid": "0792dd52aeb9329cb1e677fae6465f23",
      "longJobState": "Suspended",
      "imageUuid": "ccf943310d86335bb3d2511ca8e14137",
      "imageUploadUrl": "http://127.0.0.1:8001/imagestore/upload",
      "offset": 452984832E8
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.1.0
existingJobDetails		See existingJobDetails .	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#existingJobDetails

Name	Type	Description	Starting Version
longJobUuid	String	The long job UUID.	4.1.0
longJobState	String	The long job state.	4.1.0
imageUuid	String	The image UUID.	4.1.0
imageUploadUrl	String	The image upload URL.	4.1.0
offset	long	The upload offset. Unit : bytes.	4.1.0

SDK Sample

Java SDK

```
GetUploadImageJobDetailsAction action = new GetUploadImageJobDetailsAction();
action.imageId = "d41d8cd98f00b204e9800998ecf8427e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetUploadImageJobDetailsAction.Result res = action.call();
```

Python SDK

```
GetUploadImageJobDetailsAction action = GetUploadImageJobDetailsAction()
action.imageId = "d41d8cd98f00b204e9800998ecf8427e"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetUploadImageJobDetailsAction.Result res = action.call()
```

5.1.3.21 CalculateImageHash

API Request

URLs

```
PUT zstack/v1/images/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "calculateImageHash": {
    "backupStorageUuid": "0eeaa5988c743c638485304f3d1f867e",
    "algorithm": "MD5"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"calculateImageHash":
{"backupStorageUuid":"0eeaa5988c743c638485304f3d1f867e","algorithm":"MD5"}}'
http://localhost:8080/zstack/v1/
images/38549d5d5a3d3c5caefc18d8a9e0aa13/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The image UUID.		5.0.0
backupStorageUuid	String	body (contained in the calculateImageHash)	The backup storage uuid.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		mageHash structure)			
algorithm	String	body (contained in the calculate mageHash structure)	Optional.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "368da584193638818c480bef63732659",
    "name": "TinyLinux",
    "md5Sum": "6fc2357e711877c14c09eec960e51aed",
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "platform": "Linux",
    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0,
        "imageUuid": "368da584193638818c480bef63732659",
        "backupStorageUuid": "17f9f8d310763247b5dc31779d880a41",
        "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe694b182ebffd",
        "status": "Ready"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0

Name	Type	Description	Starting Version
inventory	ImageInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
name	String	The resource name.	5.0.0
description	String	The detailed description of the resource.	5.0.0
state	String	The state of the image.	5.0.0
status	String	The status of the image.	5.0.0

Name	Type	Description	Starting Version
size	Long	The image size.	5.0.0
actualSize	Long	The actual size of the image.	5.0.0
md5Sum	String	The MD5 checksum of the image.	5.0.0
url	String	The URL of the image.	5.0.0
mediaType	String	The image type.	5.0.0
guestOsType	String	The guest operating system type of the image.	5.0.0
type	String	The reserved field.	5.0.0
platform	String	The system platform of the image.	5.0.0
architecture	String	The image architecture.	5.0.0
format	String	The image format, for example, raw.	5.0.0
virtio	Boolean	Whether the image is a system image.	5.0.0
system	Boolean	Whether virtio is supported or not.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0
backupStorageRefs	List	See backupStorageRefs .	5.0.0

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	5.0.0
backupStorageUuid	String	The backup storage UUID.	5.0.0

Name	Type	Description	Starting Version
installPath	String	The installation path on the backup storage.	5.0.0
exportUrl	String	Exporting the url of the image.	5.0.0
exportMd5Sum	String	Exporting the MD5 value of the image.	5.0.0
status	String	The image ready status.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
CalculateImageHashAction action = new CalculateImageHashAction();
action.uuid = "383bcf0b1515369a8169b66a91de1e00";
action.backupStorageUuid = "0eeaa5988c743c638485304f3d1f867e";
action.algorithm = "MD5";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CalculateImageHashAction.Result res = action.call();
```

Python SDK

```
CalculateImageHashAction action = CalculateImageHashAction()
action.uuid = "383bcf0b1515369a8169b66a91de1e00"
action.backupStorageUuid = "0eeaa5988c743c638485304f3d1f867e"
action.algorithm = "MD5"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CalculateImageHashAction.Result res = action.call()
```

5.1.4 Affinity Group Operations

5.1.4.1 CreateAffinityGroup

API Request

URLs

```
POST zstack/v1/affinity-groups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "vm-affinity-group",
    "description": "vm affinity group for test vms",
    "policy": "antiSoft",
    "type": "host"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"vm-affinity-group","description":"vm
affinity group for test vms","policy":"antiSoft","type":"host"}}' \
http://localhost:8080/zstack/v1/affinity-groups
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The affinity group name.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the affinity group.		2.3
policy	String	body (contained in the params structure)	The affinity group policy.	• antiSoft	2.3
type	String	body (contained in the params structure)	Optional. The affinity group type. • The current type is host. • In the future, network, router, data center, and rack affinity groups will be supported.	• host	2.3
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
```

```

"inventory": {
  "uuid": "05ad02be7c5f4a6a9b6d164cb2980be6",
  "name": "affinity-group-test",
  "description": "affinity group for test",
  "policy": "ANTISOFT",
  "version": "1.0",
  "type": "HOST"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AffinityGroupInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
policy	String	The affinity group policy.	2.3
version	String	The version of the affinity group allocation algorithm.	2.3
type	String	The affinity group type. - The current type is host. - In the future, network, router, data center, and rack affinity groups will be supported.	2.3
appliance	String	The affinity group appliance.	2.3
state	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
usages	List	See usages .	2.3

#usages

Name	Type	Description	Starting Version
uuid	String	The resource binding UUID of the affinity group.	2.3
affinityGroupUuid	String	The affinity group UUID.	2.3

Name	Type	Description	Starting Version
resourceUuid	String	The UUID of the resource that joins the affinity group.	2.3
resourceType	String	The type of the resource that joins the affinity group.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
CreateAffinityGroupAction action = new CreateAffinityGroupAction();
action.name = "vm-affinity-group";
action.description = "vm affinity group for test vms";
action.policy = "antiSoft";
action.type = "host";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAffinityGroupAction.Result res = action.call();
```

Python SDK

```
CreateAffinityGroupAction action = CreateAffinityGroupAction()
action.name = "vm-affinity-group"
action.description = "vm affinity group for test vms"
action.policy = "antiSoft"
action.type = "host"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateAffinityGroupAction.Result res = action.call()
```

5.1.4.2 DeleteAffinityGroup

API Request

URLs

```
DELETE zstack/v1/affinity-groups/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/affinity-groups/
ed0b2f029cc53ca385adc19dd36b51be?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.2
deleteMode	String	url	Optional. The delete mode.		2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteAffinityGroupAction action = new DeleteAffinityGroupAction();
action.uuid = "ed0b2f029cc53ca385adc19dd36b51be";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAffinityGroupAction.Result res = action.call();
```

Python SDK

```
DeleteAffinityGroupAction action = DeleteAffinityGroupAction()
action.uuid = "ed0b2f029cc53ca385adc19dd36b51be"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteAffinityGroupAction.Result res = action.call()
```

5.1.4.3 QueryAffinityGroup

API Request

URLs

```
GET zstack/v1/affinity-groups
GET zstack/v1/affinity-groups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/affinity-groups?
q=uuid=656ebc992c3333fea209c6c90e6a76cf
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/affinity-groups/
b49759dff8593098a1d106c8129974cf
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryAffinityGroup`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "99fa95af4aac4eaabd320dbdd6d36ef8",
      "name": "affinity-group-test",
      "description": "affinity group for test",
      "policy": "ANTISOFT",
      "version": "1.0",
      "type": "HOST",
      "usages": [
        {
          "resourceUuid": "acedd8848c874cd7b1c68df7c593f6c1",
          "resourceType": "HOST"
        }
      ]
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventories	List	See inventories .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.3
policy	String	The affinity group policy.	2.3
version	String	The version of the affinity group allocation algorithm.	2.3
type	String	The affinity group type. - The current type is host. - In the future, network, router, data center, and rack affinity groups will be supported.	2.3
appliance	String	The affinity group appliance.	2.3
state	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
usages	List	See usages .	2.3

#usages

Name	Type	Description	Starting Version
uuid	String	The resource binding UUID of the affinity group.	2.3
affinityGroupUuid	String	The affinity group UUID.	2.3
resourceUuid	String	The UUID of the resource that joins the affinity group.	2.3

Name	Type	Description	Starting Version
resourceType	String	The type of the resource that joins the affinity group.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
QueryAffinityGroupAction action = new QueryAffinityGroupAction();
action.conditions = asList("uuid=bceb37906e673f37bb425933bdf2df46");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAffinityGroupAction.Result res = action.call();
```

Python SDK

```
QueryAffinityGroupAction action = QueryAffinityGroupAction()
action.conditions = ["uuid=3714ccec7a933aba94c073fcb46e52bd"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryAffinityGroupAction.Result res = action.call()
```

5.1.4.4 UpdateAffinityGroup

API Request

URLs

```
PUT zstack/v1/affinity-groups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAffinityGroup": {
    "name": "new name",
    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAffinityGroup":{"name":"new
name","description":"desc"}}' \
http://localhost:8080/zstack/v1/affinity-groups/
f287ad59b76c34b0917fa9f897b63d69/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
name	String	body (contained in the updateAffinityGroup structure)	Optional. The resource name.		2.3
description	String	body (contained in the updateAffinityGroup structure)	Optional. The detailed description of the resource.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "f8c3b350df9a3bfd960359f302a4fba2",
    "name": "affinity group",
    "description": "affinity group for test",
    "policy": "ANTISOFT",
    "type": "HOST"
```

```
}
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AffinityGroupInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.3
policy	String	The affinity group policy.	2.3
version	String	The version of the affinity group allocation algorithm.	2.3
type	String	The affinity group type. - The current type is host. - In the future, network, router, data center, and rack affinity groups will be supported.	2.3
appliance	String	The affinity group appliance.	2.3
state	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
usages	List	See usages .	2.3

#usages

Name	Type	Description	Starting Version
uuid	String	The resource binding UUID of the affinity group.	2.3
affinityGroupUuid	String	The affinity group UUID.	2.3
resourceUuid	String	The UUID of the resource that joins the affinity group.	2.3

Name	Type	Description	Starting Version
resourceType	String	The type of the resource that joins the affinity group.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
UpdateAffinityGroupAction action = new UpdateAffinityGroupAction();
action.uuid = "f287ad59b76c34b0917fa9f897b63d69";
action.name = "new name";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAffinityGroupAction.Result res = action.call();
```

Python SDK

```
UpdateAffinityGroupAction action = UpdateAffinityGroupAction()
action.uuid = "f287ad59b76c34b0917fa9f897b63d69"
action.name = "new name"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAffinityGroupAction.Result res = action.call()
```

5.1.4.5 AddVmToAffinityGroup

API Request

URLs

```
POST zstack/v1/affinity-groups/{affinityGroupUuid}/vm-instances/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' \
http://localhost:8080/zstack/v1/affinity-
groups/8e9398e9841b399693ab71fb722ea144/vm-instances/
f67763f0793832619a22e2c53c66e7d8
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
affinityGroupUuid	String	url	The affinity group UUID.		2.3
uuid	String	url	The resource UUID.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "cb4dee8a47d74f9986b4641648a4c85d",
    "name": "affinity-group-test",
    "description": "affinity group for test",
    "policy": "ANTISOFT",
    "version": "1.0",
    "type": "HOST",
    "usages": [
      {
        "uuid": "cb4dee8a47d74f9986b4641648a4c85d",
        "resourceUuid": "cf44d25659f24cefafbadbf8ad9a207d",
        "resourceType": "HOST"
      }
    ]
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AffinityGroupInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.2
policy	String	The affinity group policy.	2.2
version	String	The version of the affinity group allocation algorithm.	2.2
type	String	The affinity group type. - The current type is host. - In the future, network, router, data center, and rack affinity groups will be supported.	2.2
appliance	String	The affinity group appliance.	2.2
state	String		2.3
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
usages	List	See usages .	2.2

#usages

Name	Type	Description	Starting Version
uuid	String	The resource binding UUID of the affinity group.	2.2
affinityGroupUuid	String	The affinity group UUID.	2.2
resourceUuid	String	The UUID of the resource that joins the affinity group.	2.2

Name	Type	Description	Starting Version
resourceType	String	The type of the resource that joins the affinity group.	2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2

SDK Sample

Java SDK

```
AddVmToAffinityGroupAction action = new AddVmToAffinityGroupAction();
action.affinityGroupUuid = "8e9398e9841b399693ab71fb722ea144";
action.uuid = "f67763f0793832619a22e2c53c66e7d8";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddVmToAffinityGroupAction.Result res = action.call();
```

Python SDK

```
AddVmToAffinityGroupAction action = AddVmToAffinityGroupAction()
action.affinityGroupUuid = "8e9398e9841b399693ab71fb722ea144"
action.uuid = "f67763f0793832619a22e2c53c66e7d8"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddVmToAffinityGroupAction.Result res = action.call()
```

5.1.4.6 RemoveVmFromAffinityGroup

API Request

URLs

```
DELETE zstack/v1/affinity-groups/{affinityGroupUuid}/vm-instances?
uuid={uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/affinity-
groups/6d1e8b61e30e38ceb8300ed722c6a85a/vm-instances?
uuid=2736c4e5c4f3301e8a9ee7cc64847033
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
affinityGroupUuid	String	url	The affinity group UUID.		2.3
uuid	String	url	The resource UUID.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "15b102d8d08947e6b38fc619c71a5cfe",
    "name": "affinity-group-test",
    "description": "affinity group for test",
    "policy": "ANTISOFT",
    "version": "1.0",
    "type": "HOST"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AffinityGroupInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
policy	String	The affinity group policy.	2.3
version	String	The version of the affinity group allocation algorithm.	2.3
type	String	The affinity group type. - The current type is host. - In the future, network, router, data center, and rack affinity groups will be supported.	2.3

Name	Type	Description	Starting Version
appliance	String	The affinity group appliance.	2.3
state	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
usages	List	See usages .	2.3

#usages

Name	Type	Description	Starting Version
uuid	String	The resource binding UUID of the affinity group.	2.3
affinityGroupUuid	String	The affinity group UUID.	2.3
resourceUuid	String	The UUID of the resource that joins the affinity group.	2.3
resourceType	String	The type of the resource that joins the affinity group.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
RemoveVmFromAffinityGroupAction action = new RemoveVmFromAffinityGroupAction();
action.affinityGroupUuid = "6d1e8b61e30e38ceb8300ed722c6a85a";
action.uuid = "2736c4e5c4f3301e8a9ee7cc64847033";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveVmFromAffinityGroupAction.Result res = action.call();
```

Python SDK

```
RemoveVmFromAffinityGroupAction action = RemoveVmFromAffinityGroupAction()
```

```

action.affinityGroupUuid = "6d1e8b61e30e38ceb8300ed722c6a85a"
action.uuid = "2736c4e5c4f3301e8a9ee7cc64847033"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveVmFromAffinityGroupAction.Result res = action.call()

```

5.1.4.7 ChangeAffinityGroupState

API Request

URLs

```
PUT zstack/v1/affinity-groups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "changeAffinityGroupState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeAffinityGroupState":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/affinity-groups/
f32fd1a910d439d7ab93cd4660a02837/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
stateEvent	String	body (contained in the		- enable - disable	2.3

Name	Type	Location	Description	Optional Value	Starting Version
		changeAffinityGroupState structure)			
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "034e3ef3798f3374b85d414057313a3c",
    "name": "Test-AffinityGroup",
    "description": "Test-AffinityGroup",
    "version": "1.0",
    "type": "HOST",
    "appliance": "CUSTOMER",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AffinityGroupInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
policy	String		2.2
version	String		2.2
type	String		2.2
appliance	String		2.2
state	String		2.3
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
usages	List	See usages .	2.2

#usages

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
affinityGroupUuid	String		2.2
resourceUuid	String		2.2
resourceType	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2

SDK Sample

Java SDK

```
ChangeAffinityGroupStateAction action = new ChangeAffinityGroupStateAction();
action.uuid = "f32fd1a910d439d7ab93cd4660a02837";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeAffinityGroupStateAction.Result res = action.call();
```

Python SDK

```
ChangeAffinityGroupStateAction action = ChangeAffinityGroupStateAction()
action.uuid = "f32fd1a910d439d7ab93cd4660a02837"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeAffinityGroupStateAction.Result res = action.call()
```

5.1.4.8 GetCandidateAffinityGroupForAttachingVm

API Request

URLs

```
GET zstack/v1/affinityGroup/attachingVm
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```



```
-X GET http://localhost:8080/zstack/v1/affinityGroup/attachingVm?
vmUuid=2cbb6f64b4e03753b8fb63f497bb003a
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmUuid	String	query	The VM UUID.		4.0.0
systemTags	List	query	Optional. The system tags.		4.0.0
userTags	List	query	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "06a212ca4cce3986ae05f3912fb3bd7d",
      "name": "affinity-group-test",
      "description": "affinity group for test",
      "policy": "ANTISOFT",
      "version": "1.0",
      "type": "HOST"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	For more information, see inventories .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	4.0.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The affinity group UUID.	4.0.0
name	String	The affinity group name.	4.0.0
description	String	The detailed description of the affinity group.	4.0.0
policy	String		4.0.0
version	String		4.0.0
type	String		4.0.0
appliance	String		4.0.0
state	String		4.0.0
createDate	Timestamp	The time when the affinity group was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the affinity group was last modified.	4.0.0
usages	List	For more information, see usages .	4.0.0

#usages

Name	Type	Description	Starting Version
uuid	String	The affinity group UUID.	4.0.0
affinityGroupUuid	String		4.0.0
resourceUuid	String		4.0.0
resourceType	String		4.0.0
createDate	Timestamp	The time when the affinity group was created.	4.0.0
lastOpDate	Timestamp	The time when the affinity group was last modified.	4.0.0

SDK Sample

Java SDK

```
GetCandidateAffinityGroupForAttachingVmAction action = new GetCandidateAffinityGroupForAttachingVmAction();
action.vmUuid = "2cbb6f64b4e03753b8fb63f497bb003a";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateAffinityGroupForAttachingVmAction.Result res = action.call();
```

Python SDK

```
GetCandidateAffinityGroupForAttachingVmAction action = GetCandidateAffinityGroupForAttachingVmAction()
action.vmUuid = "2cbb6f64b4e03753b8fb63f497bb003a"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetCandidateAffinityGroupForAttachingVmAction.Result res = action.call
()
```

5.1.4.9 GetCandidateVMForAttachingAffinityGroup

API Request

URLs

```
GET zstack/v1/VM/attachingGroup
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/VM/attachingGroup?
affinityGroupUuid=a92158a6b1b333b296e93a4bd8d36e5e
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
affinityGroupUuid	String	query	The UUID of the affinity group.		4.0.0
systemTags	List	query	Optional. The system tags.		4.0.0
userTags	List	query	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "ac1d56dec1d93a29a6cb43d7aff178a3",
      "name": "Test-VM",
      "description": "web server VM",
      "zoneUuid": "892fe4676f283785970b18b6c0f556f4",
      "clusterUuid": "440f315c2b0c3561850f610f7d200959",
      "imageUuid": "72da4314ad063029a40ebec8e1204c70",
      "hostUuid": "2cac9cfdc7d030bb8cfd80bb9d922e48",
      "lastHostUuid": "c60aa755fe2d30fb80d4029e9d337ee9",
      "instanceOfferingUuid": "3ce1eb11a41030499e3e74685a568dbb",

```

```

    "rootVolumeUuid": "e6cf673fb915361caa4ab93e03c6e3a6",
    "platform": "Linux",
    "defaultL3NetworkUuid": "aff87442d7d535a2a46914f6a312c285",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Stopped"
  }
]
}

```

Name	Type	Description	Starting Version
success	boolean		4.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	For more information, see inventories .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root	4.0.0

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the VM instance.	4.0.0
name	String	The name of the VM instance.	4.0.0
description	String	The detailed description of the VM instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
hostUuid	String	The host UUID.	4.0.0
lastHostUuid	String		4.0.0
instanceOfferingUuid	String	The UUID of the instance offering.	4.0.0
rootVolumeUuid	String	The UUID of the root volume.	4.0.0
platform	String		4.0.0
defaultL3NetworkUuid	String		4.0.0
type	String		4.0.0
hypervisorType	String		4.0.0
memorySize	Long		4.0.0
cpuNum	Integer		4.0.0
cpuSpeed	Long		4.0.0
allocatorStrategy	String		4.0.0
createDate	Timestamp	The time when the VM Instance was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the VM Instance was last modified.	4.0.0
state	String		4.0.0
vmNics	List	For more information, see vmNics .	4.0.0
allVolumes	List	For more information, see allVolumes .	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC.	4.0.0
vmInstanceUuid	String	The UUID of the VM instance.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The type of the hypervisor.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The IP version.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	For more information, see usedIps .	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The IP UUID.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The UUID of the VM NIC.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description in the	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The VM UUID.	4.0.0
diskOfferingUuid	String	The disk offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0

Name	Type	Description	Starting Version
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The volume type.	4.0.0
format	String	The disk format.	4.0.0
size	Long	The volume size.	4.0.0
actualSize	Long	The actual size of the	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0
isShareable	Boolean	Indicates whether the volume is sharable.	4.0.0
volumeQos	String	The volume QoS.	4.0.0

SDK Sample

Java SDK

```
GetCandidateVMForAttachingAffinityGroupAction action = new GetCandidateVMForAttachingAffinityGroupAction();
action.affinityGroupUuid = "a92158a6b1b333b296e93a4bd8d36e5e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateVMForAttachingAffinityGroupAction.Result res = action.call();
```

Python SDK

```
GetCandidateVMForAttachingAffinityGroupAction action = GetCandidateVMForAttachingAffinityGroupAction()
action.affinityGroupUuid = "a92158a6b1b333b296e93a4bd8d36e5e"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetCandidateVMForAttachingAffinityGroupAction.Result res = action.call()
```

5.1.4.10 GetCandidateAffinityGroupForCreatingVm

API Request

URLs

```
GET zstack/v1/vm-instances/candidate-affinityGroup
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/candidate-affinityGroup?zoneUuid=eb4be792076530faa865def5bb1f43d2&clusterUuid=05033aee073b3bb69941eac1809
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
zoneUuid	String	query	Optional. The zone UUID.		4.1.0
clusterUuid	String	query	Optional. The cluster UUID.		4.1.0
hostUuid	String	query	Optional. The host UUID.		4.1.0
systemTags	List	query	Optional. The system tags.		4.1.0
userTags	List	query	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "7c5c014902fa309b91e0e01b2f5e6cfb",
      "name": "affinity-group",

```

```

    "description": "affinity group for test",
    "policy": "ANTISOFT",
    "version": "1.0",
    "type": "HOST"
  }
]
}

```

Name	Type	Description	Starting Version
success	boolean		4.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.1.0
inventories	List	See inventories	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
name	String	The resource name.	4.1.0
description	String	Optional. The detailed description of the resource.	4.1.0
policy	String		4.1.0
version	String		4.1.0
type	String		4.1.0
appliance	String		4.1.0
state	String		4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0
usages	List	See usages	4.1.0

#usages

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
affinityGroupUuid	String		4.1.0
resourceUuid	String		4.1.0
resourceType	String		4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0

SDK Sample

Java SDK

```
GetCandidateAffinityGroupForCreatingVmAction action = new GetCandidateAffinityGroupForCreatingVmAction();
action.zoneUuid = "eb4be792076530faa865def5bb1f43d2";
action.clusterUuid = "05033aee073b3bb69941eac180992e74";
action.hostUuid = "7007ba51ded339fab41ec19f2d721135";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
GetCandidateAffinityGroupForCreatingVmAction.Result res = action.call();
```

Python SDK

```
GetCandidateAffinityGroupForCreatingVmAction action = GetCandidateAffinityGroupForCreatingVmAction()
action.zoneUuid = "eb4be792076530faa865def5bb1f43d2"
action.clusterUuid = "05033aee073b3bb69941eac180992e74"
action.hostUuid = "7007ba51ded339fab41ec19f2d721135"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetCandidateAffinityGroupForCreatingVmAction.Result res = action.call()
```

5.1.5 VM Scheduling Rule Group Operations

5.1.5.1 CreateHostSchedulingRuleGroup

API Request

URLs

```
POST zstack/v1/hostSchedulingRuleGroup
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "test",
    "description": "test desc",
    "zoneUuid": "4e083eaa197835778fa94d9bfcf012d6",
    "clusterUuid": "e7127ff00fbb3ed3a9755c37447b7bf8"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":{"name":"test","description":"test desc","zoneUuid":"4e083eaa197835778fa94d9bfcf012d6","clusterUuid":"e7127ff00fbb3http://localhost:8080/zstack/v1/hostSchedulingRuleGroup
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.6.0
zoneUuid	String	body (contained in the params structure)	The zone UUID.		4.6.0
clusterUuid	String	body (contained in the params structure)	The cluster UUID.		4.6.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
```

```

"inventory": {
  "name": "test",
  "description": "test desc",
  "zoneUuid": "1eca7fc3081a3750b55930b194d82991",
  "clusterUuid": "e73c4aa3e6a03ee3bb4f325ab3b395b1"
}

```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.0
inventory	AffinityGroupInventory	See inventory .	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0
description	String	The detailed description of the resource.	4.6.0
zoneUuid	String	The zone UUID.	4.6.0
clusterUuid	String	The cluster UUID.	4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0

SDK Sample

Java SDK

```
CreateHostSchedulingRuleGroupAction action = new CreateHostSchedulingRuleGroupAction();
action.name = "test";
action.description = "test desc";
action.zoneUuid = "4e083eaa197835778fa94d9bfcf012d6";
action.clusterUuid = "e7127ff00fbb3ed3a9755c37447b7bf8";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateHostSchedulingRuleGroupAction.Result res = action.call();
```

Python SDK

```
CreateHostSchedulingRuleGroupAction action = CreateHostSchedulingRuleGroupAction()
action.name = "test"
action.description = "test desc"
action.zoneUuid = "4e083eaa197835778fa94d9bfcf012d6"
action.clusterUuid = "e7127ff00fbb3ed3a9755c37447b7bf8"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
CreateHostSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.2 DeleteHostSchedulingRuleGroup

API Request

URLs

```
DELETE zstack/v1/hostSchedulingRuleGroup/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
hostSchedulingRuleGroup/8e02276953ab35e2b591505b0f3167c9
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteHostSchedulingRuleGroupAction action = new DeleteHostSchedulingRuleGroupAction();
action.uuid = "8e02276953ab35e2b591505b0f3167c9";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteHostSchedulingRuleGroupAction.Result res = action.call();
```

Python SDK

```
DeleteHostSchedulingRuleGroupAction action = DeleteHostSchedulingRuleGroupAction()
action.uuid = "8e02276953ab35e2b591505b0f3167c9"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteHostSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.3 UpdateHostSchedulingRuleGroup

API Request

URLs

```
PUT zstack/v1/hostSchedulingRuleGroup/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateHostSchedulingRuleGroup": {
    "name": "test",
    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"updateHostSchedulingRuleGroup":
{"name":"test","description":"desc"}}' http://localhost:8080/zstack/
v1/hostSchedulingRuleGroup/7127bed5295f3a3c94d9b3dbc307450d
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.6.0
name	String	body (contained in the updateHost Scheduling RuleGroup structure)	Optional. The resource name.		4.6.0
description	String	body (contained in the updateHost Scheduling RuleGroup structure)	Optional. The detailed description of the resource.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b96c8635e48435eca42d3cbfca25704f",
    "name": "test",
    "description": "desc",
    "zoneUuid": "afcd30e31ebb38a8b0a2f013fce73f7a",
    "clusterUuid": "ae9b2f516fd43913b1d458ebe5f7222d"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.6.0
inventory	AffinityGroupInventory	See inventory	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	4.6.0
zoneUuid	String	The zone UUID.	4.6.0
clusterUuid	String	The cluster UUID.	4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0

SDK Sample

Java SDK

```
UpdateHostSchedulingRuleGroupAction action = new UpdateHostSchedulingRuleGroupAction();
action.uuid = "7127bed5295f3a3c94d9b3dbc307450d";
action.name = "test";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateHostSchedulingRuleGroupAction.Result res = action.call();
```

Python SDK

```
UpdateHostSchedulingRuleGroupAction action = UpdateHostSchedulingRuleGroupAction()
action.uuid = "7127bed5295f3a3c94d9b3dbc307450d"
action.name = "test"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateHostSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.4 AddHostToHostSchedulingRuleGroup

API Request

URLs

```
POST zstack/v1/hostSchedulingRuleGroup/{hostGroupUuid}/host/{hostUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST http://localhost:8080/zstack/v1/
hostSchedulingRuleGroup/801af67a7f1f3610a76e834e45aebf5b/
host/602ca3d56dca40fcb04944dbaa9861ee
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostGroupUuid	String	url	The hostGroup UUID.		4.6.0
hostUuid	String	body	The host UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddHostTohostSchedulingRuleGroupAction action = new AddHostTohostSchedulingRuleGroupAction();
action.hostGroupUuid = "663fb7c5b74f3bc9bf629ca3523fb8cc";
action.hostUuid = "64d7de2d3eb431c99998292d1ed5411e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddHostTohostSchedulingRuleGroupAction.Result res = action.call();
```

Python SDK

```
AddHostTohostSchedulingRuleGroupAction action = AddHostTohostSchedulingRuleGroupAction()
action.hostGroupUuid = "663fb7c5b74f3bc9bf629ca3523fb8cc"
action.hostUuid = "64d7de2d3eb431c99998292d1ed5411e"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddHostTohostSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.5 DetachHostFromHostSchedulingRuleGroup

API Request

URLs

```
DELETE zstack/v1/hostSchedulingRuleGroup/{hostGroupUuid}/host
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
hostSchedulingRuleGroup/801af67a7f1f3610a76e834e45aebf5b/host
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostGroupUuid	String	url	The UUID of the host scheduling group.		4.6.0
hostUuid	String	body	The host UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DetachHostFromHostSchedulingRuleGroupAction action = new DetachHost
FromHostSchedulingRuleGroupAction();
action.hostGroupUuid = "801af67a7f1f3610a76e834e45aebf5b";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachHostFromHostSchedulingRuleGroupAction.Result res = action.call
();
```

Python SDK

```
DetachHostFromHostSchedulingRuleGroupAction action = DetachHost
FromHostSchedulingRuleGroupAction()
action.hostGroupUuid = "801af67a7f1f3610a76e834e45aebf5b"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachHostFromHostSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.6 CreateVmSchedulingRuleGroup

API Request

URLs

```
POST zstack/v1/vmSchedulingRuleGroup
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "zoneUuid": "eae13168e86b3698807837ca88c3b2ae",
    "name": "test",
    "description": "test desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```



```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"zoneUuid":"eae13168e86b3698807837ca88c3b2ae","name":"test","description":"test
desc"}}' http://localhost:8080/zstack/v1/vmSchedulingRuleGroup
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
zoneUuid	String	body (contained in the params structure)	The zone UUID.		4.6.0
name	String	body (contained in the params structure)	The resource name.		4.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.6.0
resourceUuid	String	body (contained in the params structure)	The resource UUID.		4.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "e79dc7a0170c31d18429c7478772c5d7",
    "name": "test",
    "description": "test desc",
    "appliance": "CUSTOMER",
```

```

    "zoneUuid": "e6a7cd7917473bedbfd420797d93ed50"
  }
}

```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.0
inventory	AffinityGroupInventory	See inventory	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0
description	String	The detailed description of the resource.	4.6.0
appliance	String		4.6.0
zoneUuid	String	The zone UUID.	4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0

SDK Sample

Java SDK

```
CreateVmSchedulingRuleGroupAction action = new CreateVmSchedulingRuleGroupAction();
action.zoneUuid = "eae13168e86b3698807837ca88c3b2ae";
action.name = "test";
action.description = "test desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmSchedulingRuleGroupAction.Result res = action.call();
```

Python SDK

```
CreateVmSchedulingRuleGroupAction action = CreateVmSchedulingRuleGroupAction()
action.zoneUuid = "eae13168e86b3698807837ca88c3b2ae"
action.name = "test"
action.description = "test desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateVmSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.7 DeleteVmSchedulingRuleGroup

API Request

URLs

```
DELETE zstack/v1/vmSchedulingRuleGroup/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vmSchedulingRuleGroup/
d150bf5dca4c32768464817ab2937ac4
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteVmSchedulingRuleGroupAction action = new DeleteVmSchedulingRuleGroupAction();
action.uuid = "d150bf5dca4c32768464817ab2937ac4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVmSchedulingRuleGroupAction.Result res = action.call();
```

Python SDK

```
DeleteVmSchedulingRuleGroupAction action = DeleteVmSchedulingRuleGroupAction()
action.uuid = "d150bf5dca4c32768464817ab2937ac4"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteVmSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.8 UpdateVmSchedulingRuleGroup

API Request

URLs

```
PUT zstack/v1/vmSchedulingRuleGroup/{uuid}/update
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVmSchedulingRuleGroup": {
    "name": "test",
    "description": "test desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"updateVmSchedulingRuleGroup":
{"name":"test","description":"test desc"}}' http://
localhost:8080/zstack/v1/
vmSchedulingRuleGroup/0e8a74e4ff8d3da9bffa07f0cc7d58f91/update
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.6.0
name	String	body (contained in the updateVmSchedulingRuleGroup structure)	Optional. The resource name.		4.6.0
description	String	body (contained in the updateVmSchedulingRuleGroup structure)	Optional. The detailed description of the resource.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "75840459a5f83afebc36e605a3189289",
    "name": "test",
    "description": "test desc",
    "appliance": "CUSTOMER",
    "zoneUuid": "261246b65f253787b06a29c6c266543c"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.6.0
inventory	AffinityGroupInventory	See inventory	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0

Name	Type	Description	Starting Version
name	String	The resource name.	4.6.0
description	String	The detailed description of the resource.	4.6.0
appliance	String		4.6.0
zoneUuid	String	The zone UUID.	4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0

SDK Sample

Java SDK

```
UpdateVmSchedulingRuleGroupAction action = new UpdateVmSchedulingRuleGroupAction();
action.uuid = "0e8a74e4ff8d3da9bffa07f0cc7d58f91";
action.name = "test";
action.description = "test desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVmSchedulingRuleGroupAction.Result res = action.call();
```

Python SDK

```
UpdateVmSchedulingRuleGroupAction action = UpdateVmSchedulingRuleGroupAction()
action.uuid = "0e8a74e4ff8d3da9bffa07f0cc7d58f91"
action.name = "test"
action.description = "test desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVmSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.9 AddVmToVmSchedulingRuleGroup

API Request

URLs

```
POST zstack/v1/vmSchedulingRuleGroup/{vmGroupUuid}/vmInstance/{vmUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```



```
-X POST http://localhost:8080/zstack/v1/
vmSchedulingRuleGroup/663fb7c5b74f3bc9bf629ca3523fb8cc/
vmInstance/64d7de2d3eb431c99998292d1ed5411e
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmGroupUuid	String	url	The VM scheduling group UUID.		4.6.0
vmUuid	String	url	The VM instance UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddVmToVmSchedulingRuleGroupAction action = new AddVmToVmSchedulingRuleGroupAction();
action.vmGroupUuid = "663fb7c5b74f3bc9bf629ca3523fb8cc";
action.vmUuid = "64d7de2d3eb431c99998292d1ed5411e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddVmToVmSchedulingRuleGroupAction.Result res = action.call();
```

Python SDK

```
AddVmToVmSchedulingRuleGroupAction action = AddVmToVmSchedulingRuleGroupAction()
action.vmGroupUuid = "663fb7c5b74f3bc9bf629ca3523fb8cc"
action.vmUuid = "64d7de2d3eb431c99998292d1ed5411e"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddVmToVmSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.10 DetachVmFromVmSchedulingRuleGroup

API Request

URLs

```
DELETE zstack/v1/vmSchedulingRuleGroup/{vmGroupUuid}/vmInstance/
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
vmSchedulingRuleGroup/90c8c8b53cfc302684532e1c447e0a16/vmInstance/
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmGroupUuid	String	url	The VM scheduling group UUID.		4.6.0
vmUuid	String	body	The VM UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DetachVmFromVmSchedulingRuleGroupAction action = new DetachVmFromVmSchedulingRuleGroupAction();
action.vmGroupUuid = "90c8c8b53cfc302684532e1c447e0a16";
action.vmUuid = "560967aeab103cedb06a4a8d440c8d3d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachVmFromVmSchedulingRuleGroupAction.Result res = action.call();
```

Python SDK

```
DetachVmFromVmSchedulingRuleGroupAction action = DetachVmFromVmSchedulingRuleGroupAction()
action.vmGroupUuid = "90c8c8b53cfc302684532e1c447e0a16"
action.vmUuid = "560967aeab103cedb06a4a8d440c8d3d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachVmFromVmSchedulingRuleGroupAction.Result res = action.call()
```

5.1.5.11 GetVmSchedulingRulesExecuteState

API Request

URLs

```
POST zstack/v1/get/vmSchedulingRules/conflict/state
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "uuids": [
      "c6bb1e89239235f8b49bb10bc5d484cc"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"uuids":["c6bb1e89239235f8b49bb10bc5d484cc"]}}'
http://localhost:8080/zstack/v1/get/vmSchedulingRules/conflict/state
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuids	List	body (contained in the params structure)	The VM scheduling group UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "ruleMapState": {
    "2951e237b86630ac84d8eeb382513260": "Normal"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.6.0
ruleMapState	Map	See ruleMapState	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#ruleMapState

Name	Type	Description	Starting Version
Conflict	VmSchedulingRuleExecuteState	The conflict state.	4.6.0
Normal	VmSchedulingRuleExecuteState	The normal state.	4.6.0
Invalid	VmSchedulingRuleExecuteState	The invalid state.	4.6.0

SDK Sample

Java SDK

```
GetVmSchedulingRulesExecuteStateAction action = new GetVmSchedulingRulesExecuteStateAction();
action.uuids = asList("c6bb1e89239235f8b49bb10bc5d484cc");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
GetVmSchedulingRulesExecuteStateAction.Result res = action.call();
```

Python SDK

```
GetVmSchedulingRulesExecuteStateAction action = GetVmSchedulingRules
ExecuteStateAction()
action.uuids = [c6bb1e89239235f8b49bb10bc5d484cc]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVmSchedulingRulesExecuteStateAction.Result res = action.call()
```

5.1.5.12 CreateVmSchedulingRule

API Request

URLs

```
POST zstack/v1/vmsSchedulingRule
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "rule": "AFFINITY",
    "mode": "SOFT",
    "vmGroupUuid": "814bca77193f3e7a871891b17f8e4122",
    "hostGroupUuid": "e4241841b9083aed84726be7cbb966bf",
    "name": "vm-scheduling-rule",
    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"rule":"AFFINITY","mode":"SOFT","vmGroupUuid":"814bca77193f3e7a871891b17f8e4122",
"scheduling-rule","description":"desc"}}' http://localhost:8080/zstack/
v1/vmsSchedulingRule
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
rule	String	body (contained in the params structure)	The VM scheduling rule.	- AFFINITY - ANTI AFFINITY	4.6.0
mode	String	body (contained in the params structure)	The execution mode.	- SOFT - HARD	4.6.0
vmGroupUuid	String	body (contained in the params structure)	The VM scheduling group UUID.		4.6.0
hostGroupUuid	String	body (contained in the params structure)	The host scheduling group UUID.		4.6.0
name	String	body (contained in the params structure)	The resource name.		4.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.6.0
policy	String	body (contained in the params structure)		- antiSoft - antiHard	4.6.0
type	String	body (contained in the params structure)		host	4.6.0
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID.		4.6.0

Name	Type	Location	Description	Optional Value	Starting Version
subType	String	body (contained in the params structure)			4.6.0
resourceUuid	String	body (contained in the params structure)	The resource UUID.		4.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d517b42f669b324288fe8977a7df2e4d",
    "name": "affinity-group-test",
    "description": "affinity group for test",
    "policy": "ANTISOFT",
    "version": "1.0",
    "type": "HOST"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.0
inventory	AffinityGroupInventory	See inventory .	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0
description	String	The detailed description of the resource.	4.6.0
policy	String		4.6.0
version	String		4.6.0
type	String		4.6.0
appliance	String		4.6.0
state	String		4.6.0
createDate	Timestamp	The creation date.	4.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.6.0
usages	List	See usages.	4.6.0

#usages

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
affinityGroupUuid	String		4.6.0
resourceUuid	String		4.6.0
resourceType	String		4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0

SDK Sample

Java SDK

```
CreateVmSchedulingRuleAction action = new CreateVmSchedulingRuleAction
();
action.rule = "AFFINITY";
action.mode = "SOFT";
action.vmGroupUuid = "814bca77193f3e7a871891b17f8e4122";
action.hostGroupUuid = "e4241841b9083aed84726be7cbb966bf";
action.name = "vm-scheduling-rule";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmSchedulingRuleAction.Result res = action.call();
```

Python SDK

```
CreateVmSchedulingRuleAction action = CreateVmSchedulingRuleAction()
action.rule = "AFFINITY"
action.mode = "SOFT"
action.vmGroupUuid = "814bca77193f3e7a871891b17f8e4122"
action.hostGroupUuid = "e4241841b9083aed84726be7cbb966bf"
action.name = "vm-scheduling-rule"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateVmSchedulingRuleAction.Result res = action.call()
```

5.1.5.13 RemoveVmSchedulingRule

API Request

URLs

```
DELETE zstack/v1/vmSchedulingRule/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vmSchedulingRule/
b247592a7e773a338a8965dc0d2cfffad
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.6.0
deleteMode	String	body	Optional. The deletion mode.	• Permissive • Enforcing • Permissive	4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
RemoveVmSchedulingRuleAction action = new RemoveVmSchedulingRuleAction();
action.uuid = "b247592a7e773a338a8965dc0d2cfffad";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveVmSchedulingRuleAction.Result res = action.call();
```

Python SDK

```
RemoveVmSchedulingRuleAction action = RemoveVmSchedulingRuleAction()
action.uuid = "b247592a7e773a338a8965dc0d2cfffad"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveVmSchedulingRuleAction.Result res = action.call()
```

5.1.5.14 ChangeVmSchedulingRuleState

API Request

URLs

```
PUT zstack/v1/vmSchedulingRule/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVmSchedulingRuleState": {
    "state": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"changeVmSchedulingRuleState":
{"state":"enable"}}' http://localhost:8080/zstack/v1/
vmSchedulingRule/907848e59a963a97a237c6dcb26d96ba/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.6.0
state	String	body (contained in the changeVmSchedulingRuleState structure)	The state after the modification.	- enable - disable	4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "inventory": {
    "rule": "AFFINITY",
    "mode": "SOFT",
    "uuid": "8ab474e792183589b6a58bbe473c635a",
    "name": "Test-AffinityGroup",
    "description": "Test-AffinityGroup",
    "version": "1.0",
    "type": "HOST",
    "appliance": "CUSTOMER",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.6.0

Name	Type	Description	Starting Version
		more information, see error	
inventory	AffinityGroupInventory	See inventory	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
rule	String	The VM scheduling rule.	4.6.0
mode	String	The execution mode of the rule.	4.6.0
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	4.6.0
policy	String		4.6.0
version	String		4.6.0
type	String		4.6.0
appliance	String		4.6.0
zoneUuid	String	The zone UUID.	4.6.0
state	String		4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0
usages	List	See usages	4.6.0

#usages

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
affinityGroupUuid	String		4.6.0
resourceUuid	String		4.6.0
resourceType	String		4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0

SDK Sample

Java SDK

```
ChangeVmSchedulingRuleStateAction action = new ChangeVmSchedulingRuleStateAction();
action.uuid = "907848e59a963a97a237c6dcb26d96ba";
action.state = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ChangeVmSchedulingRuleStateAction.Result res = action.call();
```

Python SDK

```
ChangeVmSchedulingRuleStateAction action = ChangeVmSchedulingRuleStateAction()
action.uuid = "907848e59a963a97a237c6dcb26d96ba"
action.state = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeVmSchedulingRuleStateAction.Result res = action.call()
```

5.1.5.15 UpdateVmSchedulingRule

API Request

URLs

```
PUT zstack/v1/vmSchedulingRule/{uuid}/update
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVmSchedulingRule": {
    "name": "new name",
    "description": "desc",
    "mode": "SOFT"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVmSchedulingRule":{"name":"new name","description":"desc","mode":"SOFT"}}' http://localhost:8080/zstack/v1/vmSchedulingRule/5c23ac3de87f33ff955430556e9d1104/update
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.6.0
name	String	body (contained in the params structure)	Optional. The resource name.		4.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.6.0
mode	String	body (contained in the params structure)	Optional.		4.6.0
systemTags	List	body	Optional.		4.6.0
userTags	List	body	Optional.		4.6.0

API Response

Sample Response

```
{
  "inventory": {
    "rule": "AFFINITY",
    "mode": "SOFT",
    "uuid": "36f4174c0fcf3aefa24927f33aa2eba8",
    "name": "group",
    "description": "group for test",
    "policy": "ANTISOFT",
    "type": "HOST"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.6.0

Name	Type	Description	Starting Version
inventory	AffinityGroupInventory	See inventory	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.0

#inventory

Name	Type	Description	Starting Version
rule	String	The VM scheduling rule.	4.6.0
mode	String	The execution mode of the rule.	4.6.0
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0
description	String	The detailed description of the resource.	4.6.0

Name	Type	Description	Starting Version
policy	String		4.6.0
version	String		4.6.0
type	String		4.6.0
appliance	String		4.6.0
zoneUuid	String	The zone UUID.	4.6.0
state	String		4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0
usages	List	See usages	4.6.0

#usages

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
affinityGroupUuid	String		4.6.0
resourceUuid	String		4.6.0
resourceType	String		4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0

SDK Sample

Java SDK

```
UpdateVmSchedulingRuleAction action = new UpdateVmSchedulingRuleAction
();
action.uuid = "5c23ac3de87f33ff955430556e9d1104";
action.name = "new name";
action.description = "desc";
action.mode = "SOFT";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVmSchedulingRuleAction.Result res = action.call();
```

Python SDK

```
UpdateVmSchedulingRuleAction action = UpdateVmSchedulingRuleAction()
action.uuid = "5c23ac3de87f33ff955430556e9d1104"
action.name = "new name"
```

```

action.description = "desc"
action.mode = "SOFT"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVmSchedulingRuleAction.Result res = action.call()

```

5.1.5.16 ValidateVmSchedulingRule

API Request

URLs

```
PUT zstack/v1/validate/vmSchedulingRule
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "validateVmSchedulingRule": {
    "vmGroupUuid": "2bce1a0af86a3ceebd70ef1aaa3633d1",
    "hostGroupUuid": "15b9f0a9a3c43708890eef7552959746",
    "rule": "AFFINITY",
    "mode": "HARD",
    "zoneUuid": "538bdbde4d9d3b919e2cc9ae44542f09"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"validateVmSchedulingRule":
{"vmGroupUuid":"2bce1a0af86a3ceebd70ef1aaa3633d1","hostGroupUuid":"15b9f0a9a3c43708890eef7552959746",
http://localhost:8080/zstack/v1/validate/vmSchedulingRule

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmGroupUuid	String	body (contained in the	The VM scheduling group UUID.		4.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		validateVm Scheduling Rule structure)			
hostGroupU uid	String	body (contained in the validateVm Scheduling Rule structure)	Optional. The host scheduling group UUID.		4.6.0
rule	String	body (contained in the validateVm Scheduling Rule structure)	The VM scheduling rule.	• AFFINITY • ANTIAFFINITY	4.6.0
mode	String	body (contained in the validateVm Scheduling Rule structure)	The execution mode of the rule.	• SOFT • HARD	4.6.0
zoneUuid	String	body (contained in the validateVm Scheduling Rule structure)	Optional. The zone UUID.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ValidateVmSchedulingRuleAction action = new ValidateVmScheduling
RuleAction();
action.vmGroupUuid = "2bce1a0af86a3ceebd70ef1aaa3633d1";
action.hostGroupUuid = "15b9f0a9a3c43708890eef7552959746";
action.rule = "AFFINITY";
action.mode = "HARD";
action.zoneUuid = "538bdbde4d9d3b919e2cc9ae44542f09";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ValidateVmSchedulingRuleAction.Result res = action.call();
```

Python SDK

```
ValidateVmSchedulingRuleAction action = ValidateVmSchedulingRuleAction
()
action.vmGroupUuid = "2bce1a0af86a3ceebd70ef1aaa3633d1"
action.hostGroupUuid = "15b9f0a9a3c43708890eef7552959746"
action.rule = "AFFINITY"
action.mode = "HARD"
action.zoneUuid = "538bdbde4d9d3b919e2cc9ae44542f09"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ValidateVmSchedulingRuleAction.Result res = action.call()
```

5.1.6 Instance Offering Operations

5.1.6.1 CreateInstanceOffering

API Request

URLs

```
POST zstack/v1/instance-offerings
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "instanceOffering",
    "cpuNum": 2.0,
    "memorySize": 2097152.0,
    "sortKey": 0.0,
    "type": "UserVm"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"instanceOffering","cpuNum":2.0,"memorySize":2097152.0,"sortKey":0.0,"type":
"http://localhost:8080/zstack/v1/instance-offerings
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in	The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
cpuNum	int	body (contained in the params structure)	The CPU count.		0.6
memorySize	long	body (contained in the params structure)	The memory size. Unit: byte		0.6
allocatorStrategy	String	body (contained in the params structure)	Optional. The allocator strategy.	- DefaultHostAllocatorStrategy - LastHostPreferredAllocatorStrategy - LeastVmPreferredHostAllocatorStrategy - MinimumCPUUsageHostAllocatorStrategy - MinimumMemoryUsageHostAllocatorStrategy - MaxInstancePerHostHostAllocatorStrategy	0.6

Name	Type	Location	Description	Optional Value	Starting Version
sortKey	int	body (contained in the params structure)	Optional. The sort key.		0.6
type	String	body (contained in the params structure)	Optional. The type.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you create an instance offering in ZStack Cloud, you can add a GPU specification by adding the **pciRom** option to **SystemTags**.
 - Format of the **pciRom** option: `pciRomUuid::UUID`. Here, the UUID is the UUID of the PCI device firmware.
 - Example: `pciRomUuid::5fd71606d5af451d981413f35367a8d6`
- When you create an instance offering in ZStack Cloud, you can customize the instance offering parameters by adding the **instanceOfferingUserConfig** option to **SystemTags**.
 - Format of the **instanceOfferingUserConfig** option: `instanceOfferingUserConfig::xxx`. Here, xxx must be a JSON string.

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d04e02a97d6c4ad0b0acee2a2f6c7084",
    "name": "instanceOffering1",
    "cpuNum": 2.0,
```

```

"cpuSpeed": 1.0,
"type": "UserVm",
"allocatorStrategy": "Mevoco",
"createDate": "Jun 7, 2017 9:20:40 PM",
"lastOpDate": "Jun 7, 2017 9:20:40 PM",
"state": "Enabled"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	InstanceOfferingInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
cpuNum	Integer	The CPU count.	0.6
cpuSpeed	Integer	The CPU speed.	0.6
memorySize	Long	The memory size.	0.6
type	String	The type.	0.6
allocatorStrategy	String	The allocator strategy.	0.6
sortKey	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String	The state, including Enabled and Disabled.	0.6

SDK Sample

Java SDK

```
CreateInstanceOfferingAction action = new CreateInstanceOfferingAction();
action.name = "instanceOffering";
action.cpuNum = 2.0;
action.memorySize = 2097152.0;
action.sortKey = 0.0;
action.type = "UserVm";
action.sessionId = "1567ec4024724d2ea60eba29b957158c";
CreateInstanceOfferingAction.Result res = action.call();
```

Python SDK

```
CreateInstanceOfferingAction action = CreateInstanceOfferingAction()
action.name = "instanceOffering"
action.cpuNum = 2.0
action.memorySize = 2097152.0
action.sortKey = 0.0
action.type = "UserVm"
action.sessionId = "427dd2d091a54a09999e7e31eac07fc83"
```

```
CreateInstanceOfferingAction.Result res = action.call()
```

5.1.6.2 DeleteInstanceOffering

API Request

URLs

```
DELETE zstack/v1/instance-offerings/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth cd94b78dc89842c19ea248ddb04816c0" \
-X DELETE http://localhost:8080/zstack/v1/instance-offerings/
d4061032ef3940b990ba671acd1221fc?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteInstanceOfferingAction action = new DeleteInstanceOfferingAction();
action.uuid = "07ce817b8d9d4f629c2bd65daae9b7bb";
action.deleteMode = "Permissive";
action.sessionId = "fd2aa30babca411780c7df97d3ae6f9f";
DeleteInstanceOfferingAction.Result res = action.call();
```

Python SDK

```
DeleteInstanceOfferingAction action = DeleteInstanceOfferingAction()
action.uuid = "694e24b4a64d4b45936a9bbcf878078b"
action.deleteMode = "Permissive"
action.sessionId = "a13ac6edf7f546e48c4dbfea66429610"
DeleteInstanceOfferingAction.Result res = action.call()
```

5.1.6.3 QueryInstanceOffering

API Request

URLs

```
GET zstack/v1/instance-offerings
GET zstack/v1/instance-offerings/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth d4743a8bc4eb4dd7a827c58e20437e85" \
-X GET http://localhost:8080/zstack/v1/instance-offerings?
q=uuid=3695f87b54594284b9ce542b2b653fb7
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e053145ce7d74cad8686d9b2a91e2754" \
-X GET http://localhost:8080/zstack/v1/instance-offerings/
b1c967830a5f4b198b291d7f22cc8a2f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryInstanceOffering`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "4f7e7eff5bb04f7cacc33a18006a0c72",
      "name": "instanceOffering1",
      "cpuNum": 2.0,
      "cpuSpeed": 1.0,
      "type": "UserVm",
      "allocatorStrategy": "Mevoco",
      "createDate": "Jun 7, 2017 9:20:13 PM",
      "lastOpDate": "Jun 7, 2017 9:20:13 PM",
      "state": "Enabled"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
cpuNum	Integer	The CPU count.	0.6
cpuSpeed	Integer	The CPU speed.	0.6
memorySize	Long	The memory size.	0.6
type	String	The type.	0.6
allocatorStrategy	String	The allocator strategy.	0.6
sortKey	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String	The state, including Enabled and Disabled.	0.6

SDK Sample

Java SDK

```
QueryInstanceOfferingAction action = new QueryInstanceOfferingAction();
action.conditions = asList("uuid=8c77205cdc114a9090bc5d978b9d5285");
action.sessionId = "7d91852598ca41ca904539b34396c2ec";
QueryInstanceOfferingAction.Result res = action.call();
```

Python SDK

```
QueryInstanceOfferingAction action = QueryInstanceOfferingAction()
```

```
action.conditions = ["uuid=6539c13e7a8843b7860ebc53c3f7e892"]
action.sessionId = "8700ab8ae22e48fb81a793b9a51e970a"
QueryInstanceOfferingAction.Result res = action.call()
```

5.1.6.4 ChangeInstanceOffering

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeInstanceOffering": {
    "instanceOfferingUuid": "818e8cad0af948baa9b8e7d8d7116abb"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeInstanceOffering":
{"instanceOfferingUuid":"7c46b8e59bf63b5f94fda63fce797581"}}' \
http://localhost:8080/zstack/v1/vm-
instances/6b322ba8e03136e6bf200431e550d1a6/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		0.6
instanceOfferingUuid	String	body (contained)	The instance offering UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		in the changeInstanceOffering structure			
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ChangeInstanceOfferingAction action = new ChangeInstanceOfferingAction();
action.vmInstanceId = "c63937d254e24da1b06afc433b0e27ff";
action.instanceOfferingId = "3186c364b49f485ba14591f81387010a";
action.sessionId = "3d53ea4d8e914d56ae795e9592a63317";
ChangeInstanceOfferingAction.Result res = action.call();
```

Python SDK

```
ChangeInstanceOfferingAction action = ChangeInstanceOfferingAction()
action.vmInstanceId = "5783bd4c68c04d9f9fe20783d92fa822"
action.instanceOfferingId = "8a9f3296030948b6bcda8c75a05458c9"
action.sessionId = "a19417648f9440c5b84b6ee4280dcefc"
```

```
ChangeInstanceOfferingAction.Result res = action.call()
```

5.1.6.5 UpdateInstanceOffering

API Request

URLs

```
PUT zstack/v1/instance-offerings/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateInstanceOffering": {
    "name": "new name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateInstanceOffering":{"name":"new name"}}' \
http://localhost:8080/zstack/v1/instance-offerings/
d071c5278471319291f6d1b44522a044/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateInst	Optional. The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		anceOffering (structure)			
description	String	body (contained in the updateInst anceOffering structure)	Optional. The detailed description of the resource.		0.6
allocatorS trategy	String	body (contained in the updateInst anceOffering structure)	Optional. The allocator strategy.	• DefaultHostAllocatorStrategy • LastHostPreferredAllocatorStrategy • LeastVmPreferredHostAllocatorStrategy • MinimumCPUUsageHostAllocatorStrategy • MinimumMemoryUsageHostAllocatorStrategy • MaxInstancePerHostHostAllocatorStrategy • DesignatedHostAllocatorStrategy	2.3.1
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "341367815c8e45209787b2361837109e",
    "name": "instanceOffering1",
    "cpuNum": 2.0,
    "cpuSpeed": 1.0,
    "type": "UserVm",
    "allocatorStrategy": "Mevoco",
    "createDate": "Jun 7, 2017 9:20:13 PM",
    "lastOpDate": "Jun 7, 2017 9:20:13 PM",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	InstanceOfferingInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
cpuNum	Integer	The CPU count.	0.6
cpuSpeed	Integer	The CPU speed.	0.6
memorySize	Long	The memory size.	0.6
type	String	The type.	0.6
allocatorStrategy	String	The allocator strategy.	0.6
sortKey	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String	The state, including Enabled and Disabled.	0.6

SDK Sample

Java SDK

```
UpdateInstanceOfferingAction action = new UpdateInstanceOfferingAction
();
action.uuid = "0d71c980598b4c7b8a8eeef3148ced95";
action.name = "new name";
action.sessionId = "12bf1da37d444e2fbb6de5dc98f8d5f0";
```

```
UpdateInstanceOfferingAction.Result res = action.call();
```

Python SDK

```
UpdateInstanceOfferingAction action = UpdateInstanceOfferingAction()
action.uuid = "bbe8cd1494d2413a8951623657a4f9c0"
action.name = "new name"
action.sessionId = "9251753d64fa477aa7cdd3956a94ff18"
UpdateInstanceOfferingAction.Result res = action.call()
```

5.1.6.6 ChangeInstanceOfferingState

API Request

URLs

```
PUT zstack/v1/instance-offerings/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeInstanceOfferingState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 318fe86dc2c2424c863623942dcf8e6f" \
-X PUT http://localhost:8080/zstack/v1/instance-offerings/049d4fa0268549c9b3e3e84f4c280d09/actions?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
stateEvent	String	body (contained in the changeInstanceOfferingState structure)	The state event.	- enable - disable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "372d111a940b46b39da8c32c5629ba66",
    "name": "instanceOffering1",
    "cpuNum": 2.0,
    "cpuSpeed": 1.0,
    "type": "UserVm",
    "allocatorStrategy": "Mevoco",
    "createDate": "Jun 7, 2017 9:20:36 PM",
    "lastOpDate": "Jun 7, 2017 9:20:36 PM",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	InstanceOfferingInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
cpuNum	Integer	The CPU count.	0.6
cpuSpeed	Integer	The CPU speed.	0.6
memorySize	Long	The memory size.	0.6
type	String	The type.	0.6
allocatorStrategy	String	The allocator strategy.	0.6
sortKey	Integer		0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6
state	String	The state, including Enabled and Disabled.	0.6

SDK Sample

Java SDK

```
ChangeInstanceOfferingStateAction action = new ChangeInstanceOfferingStateAction();
action.uuid = "ca7a911366f74e9b8e4222785cf963a1";
action.stateEvent = "enable";
action.sessionId = "86cf8ce78421434eb9458504f7449c64";
ChangeInstanceOfferingStateAction.Result res = action.call();
```

Python SDK

```
ChangeInstanceOfferingStateAction action = ChangeInstanceOfferingStateAction()
action.uuid = "5cfc5009c0b74319855ccd197fa04a16"
action.stateEvent = "enable"
action.sessionId = "c593d4f452fd498cb60679a0956f1929"
ChangeInstanceOfferingStateAction.Result res = action.call()
```

5.1.7 Disk Offering Operations

5.1.7.1 CreateDiskOffering

API Request

URLs

```
POST zstack/v1/disk-offerings
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "diskOffering1",
    "diskSize": 100.0,
    "sortKey": 0.0
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"diskOffering1","diskSize":100.0,"sortKey":0.0}}' \
http://localhost:8080/zstack/v1/disk-offerings
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
diskSize	long	body (contained in the params structure)	The volume size.		0.6
sortKey	int	body (contained in the params structure)	Optional. The sort key.		0.6
allocation Strategy	String	body (contained in the params structure)	Optional. The allocation strategy.	- DefaultHostAllocator Strategy - LastHostPreferredAll oculatorStra tegy	0.6

Name	Type	Location	Description	Optional Value	Starting Version
				- LeastVmPreferredHostAllocatorStrategy - MinimumCPUUsageHostAllocatorStrategy - MinimumMemoryUsageHostAllocatorStrategy - MaxInstancePerHostHostAllocatorStrategy - LeastVolumePrimaryStorageAllocationStrategy - MaximumAvailableCapacityAllocationStrategy - CustomOrderPrimaryStorageAllocationStrategy	
type	String	body (contained in the params structure)	Optional. The type.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you create a disk offering in ZStack Cloud, you can customize the disk offering parameters by adding the **diskOfferingUserConfig** option to **SystemTags**.
 - Format of the **diskOfferingUserConfig** option: `diskOfferingUserConfig::xxx`. Here, xxx must be a JSON string.

For example, to specify multiple primary storage for a disk offering, you can use `diskOfferingUserConfig::`

```
{
  "allocate": {
    "primaryStorages": [
      {
        "type": "Enter a primary storage type",
        "uuid": "Enter a primary storage UUID"
      },
      {
        "type": "Enter a primary storage type",
        "uuid": "Enter a primary storage UUID"
      },
      {
        "type": "Enter a primary storage type",
        "uuid": "Enter a primary storage UUID"
      }
    ]
  }
}
```

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "e7a865815cd34dd29812d335dc1019bf",
    "name": "diskOffering1",
    "diskSize": 100.0,
    "state": "Enabled",
    "type": "DefaultDiskOfferingType",
    "allocatorStrategy": "DefaultPrimaryStorageAllocationStrategy"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	DiskOfferingInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
diskSize	Long	The volume size.	0.6
sortKey	Integer		0.6
state	String	The state, including Enabled and Disabled.	0.6
type	String	The type.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
allocatorStrategy	String	The allocator strategy.	0.6

SDK Sample

Java SDK

```
CreateDiskOfferingAction action = new CreateDiskOfferingAction();
action.name = "diskOffering1";
action.diskSize = 100.0;
action.sortKey = 0.0;
action.sessionId = "5c780b5178c0432b9f86a758c4c75ea1";
CreateDiskOfferingAction.Result res = action.call();
```

Python SDK

```
CreateDiskOfferingAction action = CreateDiskOfferingAction()
action.name = "diskOffering1"
action.diskSize = 100.0
action.sortKey = 0.0
action.sessionId = "f930e0f78ce948778c8c3f1cbcd0c4ec"
```

```
CreateDiskOfferingAction.Result res = action.call()
```

5.1.7.2 DeleteDiskOffering

API Request

URLs

```
DELETE/v1/disk-offerings/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e12cbd12fbd54afd96c463c093ce1ed9" \
-X DELETE http://localhost:8080/zstack/v1/disk-offerings/6313fb03124a4aa6b7f77d8d153c0bcb?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteDiskOfferingAction action = new DeleteDiskOfferingAction();
action.uuid = "1d4e09f16c7c45abaab80be172b26cc1";
action.deleteMode = "Permissive";
action.sessionId = "1a31abeef7e4ab5bc538168be6deb05";
DeleteDiskOfferingAction.Result res = action.call();
```

Python SDK

```
DeleteDiskOfferingAction action = DeleteDiskOfferingAction()
action.uuid = "4f0d2dc3a8f34685ad8543834bf4cfd8"
action.deleteMode = "Permissive"
action.sessionId = "dce93830769b427ca6edf3bda25f65f6"
DeleteDiskOfferingAction.Result res = action.call()
```

5.1.7.3 QueryDiskOffering

API Request

URLs

```
GET zstack/v1/disk-offerings
GET zstack/v1/disk-offerings/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth d6550daa638547498b8075f3ebd1e240" \
-X GET http://localhost:8080/zstack/v1/disk-offerings?
q=uuid=85c065f24d024bf3920766692da392eb
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 3b32284bc5344692a8bc77a43610f460" \
-X GET http://localhost:8080/zstack/v1/disk-
offerings/2f25294896e24c89b63edb7a209ebb85
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryDiskOffering`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "7bd03741125a48d485255601b639318b",
      "name": "diskOffering1",
      "diskSize": 100.0,
      "state": "Enabled",
      "type": "DefaultDiskOfferingType",
      "allocatorStrategy": "DefaultPrimaryStorageAllocationStrategy"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root	0.6

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
diskSize	Long	The volume size.	0.6
sortKey	Integer		0.6
state	String	The state, including Enabled and Disabled.	0.6
type	String	The type.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
allocatorStrategy	String	The allocator strategy.	0.6

SDK Sample

Java SDK

```
QueryDiskOfferingAction action = new QueryDiskOfferingAction();
action.conditions = asList("uuid=e01b8a266d05425ba2d0c05308763db8");
action.sessionId = "d8a3f3b62d8c4affab7c5d491f95d4de";
QueryDiskOfferingAction.Result res = action.call();
```

Python SDK

```
QueryDiskOfferingAction action = QueryDiskOfferingAction()
action.conditions = ["uuid=a1f7f68522e64783a37095a862f9bc28"]
action.sessionId = "593740538236497183e065e1251b6937"
```

```
QueryDiskOfferingAction.Result res = action.call()
```

5.1.7.4 ChangeDiskOfferingState

API Request

URLs

```
PUT zstack/v1/disk-offerings/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeDiskOfferingState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeDiskOfferingState":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/disk-offerings/39c32ae614e23ce2a6877797a09037fd/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
stateEvent	String	body (contained in the changeDisk	The state event.	- enable - disable	0.6

Name	Type	Location	Description	Optional Value	Starting Version
		OfferingState structure)			
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5e84d8a44b2941eb96d9eec31e0524be",
    "name": "diskOffering1",
    "diskSize": 100.0,
    "state": "Enabled",
    "type": "DefaultDiskOfferingType",
    "allocatorStrategy": "DefaultPrimaryStorageAllocationStrategy"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	DiskOfferingInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
diskSize	Long	The volume size.	0.6
sortKey	Integer		0.6
state	String	The state, including Enabled and Disabled.	0.6
type	String	The type.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
allocatorStrategy	String	The allocator strategy.	0.6

SDK Sample

Java SDK

```
ChangeDiskOfferingStateAction action = new ChangeDiskOfferingStateAction();
action.uuid = "b99744228d4943959881b051cecb376d";
action.stateEvent = "enable";
```

```
action.sessionId = "8733eb947ada42bb8769ad170f889e98";
ChangeDiskOfferingStateAction.Result res = action.call();
```

Python SDK

```
ChangeDiskOfferingStateAction action = ChangeDiskOfferingStateAction()
action.uuid = "521d538a214c42e39d16cef5a1e13cc9"
action.stateEvent = "enable"
action.sessionId = "7e7ba75914814242a268026ca77163e5"
ChangeDiskOfferingStateAction.Result res = action.call()
```

5.1.7.5 UpdateDiskOffering

API Request

URLs

```
PUT zstack/v1/disk-offerings/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateDiskOffering": {
    "name": "new name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateDiskOffering":{"name":"new name"}}' \
http://localhost:8080/zstack/v1/disk-offerings/1a2b9698ee163ad69374f765f6234f02/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateDisk Offering structure)	Optional. The resource name.		0.6
description	String	body (contained in the updateDisk Offering structure)	Optional. The detailed description of the resource.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a156bb54daa544628f2abff419c76977",
    "name": "new name",
    "diskSize": 100.0,
    "state": "Enabled",
    "type": "DefaultDiskOfferingType",
    "allocatorStrategy": "DefaultPrimaryStorageAllocationStrategy"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	DiskOfferingInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
diskSize	Long	The volume size.	0.6
sortKey	Integer		0.6
state	String	The state, including Enabled and Disabled.	0.6
type	String	The type.	0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6
allocatorStrategy	String	The allocator strategy.	0.6

SDK Sample

Java SDK

```
UpdateDiskOfferingAction action = new UpdateDiskOfferingAction();
action.uuid = "21226fe14a8042d2ad1d37640c8a8594";
action.name = "new name";
action.sessionId = "c8e71fd622614f15b3452a8fa451d037";
UpdateDiskOfferingAction.Result res = action.call();
```

Python SDK

```
UpdateDiskOfferingAction action = UpdateDiskOfferingAction()
action.uuid = "30d4acc261f34c55a297a203fed852e2"
action.name = "new name"
action.sessionId = "0236ee9dd5d440de84f867e9d550172c"
UpdateDiskOfferingAction.Result res = action.call()
```

5.1.8 Auto-Scaling Group Operations

5.1.8.1 CreateAutoScalingGroup

API Request

URLs

```
POST zstack/v1/autoscaling/groups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "test-group",
    "description": "just for test",
    "scalingResourceType": "VmInstance",
    "minResourceSize": 2.0,
    "maxResourceSize": 10.0,
    "defaultCooldown": 60.0,
    "removalPolicy": "OldestInstance",
    "defaultEnable": false
  },
  "systemTags": [],
```

```
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"test-group","description":"just for
test","scalingResourceType":"VmInstance","minResourceSize":2.0,"maxResourceSize":
http://localhost:8080/zstack/v1/autoscaling/groups
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		3.1.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.1.0
scalingResourceType	String	body (contained in the params structure)	The resource type of the auto scaling group. Current type: VM instance.	• VmInstance	3.1.0
minResourceSize	Integer	body (contained in the params structure)	The minimum number of VM instances in the auto scaling group.		3.1.0
maxResourceSize	Integer	body (contained in the params structure)	The maximum number of VM instances in the auto scaling group.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
defaultCooldown	Long	body (contained in the params structure)	The default cooldown time of the auto scaling rule.		3.1.0
removalPolicy	String	body (contained in the params structure)	The policy for removing a VM instance.	• OldestInstance • NewestInstance • OldestScalingConfiguration • MinimumCPUUsageInstance • MinimumMemoryUsageInstance	3.1.0
defaultEnable	boolean	body (contained in the params structure)	Optional. Whether to enable the auto scaling group after creation.		3.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.1.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-group",
    "uuid": "ff296e09f82e3a84af082257ff63d162",
    "description": "just for test",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingGroupInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current	3.1.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingResourceType	String	The resource type of the auto scaling group . Current type: VM instance.	3.1.0
state	String	The state of the auto scaling group.	3.1.0
defaultCooldown	Long	The default cooldown time of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
minResourceSize	Integer	The minimum number of VM instances in the auto scaling group.	3.1.0
maxResourceSize	Integer	The maximum number of VM instances in the auto scaling group.	3.1.0
removalPolicy	String	The default policy for removing a VM instance.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
attachedTemplates	List	The templates of VM instances attached to the auto scaling group.	3.1.0
systemTags	List		3.1.0

SDK Sample

Java SDK

```
CreateAutoScalingGroupAction action = new CreateAutoScalingGroupAction();
action.name = "test-group";
action.description = "just for test";
action.scalingResourceType = "VmInstance";
action.minResourceSize = 2.0;
action.maxResourceSize = 10.0;
action.defaultCooldown = 60.0;
action.removalPolicy = "OldestInstance";
action.defaultEnable = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAutoScalingGroupAction.Result res = action.call();
```

Python SDK

```
CreateAutoScalingGroupAction action = CreateAutoScalingGroupAction()
action.name = "test-group"
action.description = "just for test"
action.scalingResourceType = "VmInstance"
action.minResourceSize = 2.0
action.maxResourceSize = 10.0
action.defaultCooldown = 60.0
action.removalPolicy = "OldestInstance"
action.defaultEnable = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateAutoScalingGroupAction.Result res = action.call()
```

5.1.8.2 DeleteAutoScalingGroup

API Request

URLs

```
DELETE zstack/v1/autoscaling/groups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/autoscaling/
groups/09121b25fdf330538288d1ac81025563
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteAutoScalingGroupAction action = new DeleteAutoScalingGroupAction();
action.uuid = "09121b25fdf330538288d1ac81025563";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAutoScalingGroupAction.Result res = action.call();
```

Python SDK

```
DeleteAutoScalingGroupAction action = DeleteAutoScalingGroupAction()
action.uuid = "09121b25fdf330538288d1ac81025563"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteAutoScalingGroupAction.Result res = action.call()
```

5.1.8.3 UpdateAutoScalingGroup

API Request

URLs

```
PUT zstack/v1/autoscaling/groups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAutoScalingGroup": {
    "name": "test-group2"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAutoScalingGroup":{"name":"test-group2"}}' http://localhost:8080/zstack/v1/autoscaling/groups/17a8d07735b631a688d6f95f3323fe91/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
name	String	body (contained in the updateAuto	Optional. The resource name.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		ScalingGroup structure)			
description	String	body (contained in the updateAutoScalingGroup structure)	Optional. The detailed description of the resource.		3.1.0
minResourceSize	Integer	body (contained in the updateAutoScalingGroup structure)	Optional. The minimum number of VM instances in the auto scaling group.		3.1.0
maxResourceSize	Integer	body (contained in the updateAutoScalingGroup structure)	Optional. The maximum number of VM instances in the auto scaling group.		3.1.0
removalPolicy	String	body (contained in the updateAutoScalingGroup structure)	Optional. The policy for removing a VM instance. The oldest and newest VM instances take precedence.	• OldestInstance • NewestInstance • OldestScalingConfiguration • MinimumCPUUsageInstance • MinimumMemoryUsageInstance	3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-load-balance-profile",
    "uuid": "95f4b920e6b63e318940a44c0f47788e",
    "description": "just for test",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingGroupInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current	3.1.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingResourceType	String	The resource type of the auto scaling group . Current type: VM instance.	3.1.0
state	String	The state of the auto scaling group.	3.1.0
defaultCooldown	Long	The default cooldown time of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
minResourceSize	Integer	The minimum number of VM instances in the auto scaling group.	3.1.0
maxResourceSize	Integer	The maximum number of VM instances in the auto scaling group.	3.1.0
removalPolicy	String	The default policy for removing a VM instance.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
attachedTemplates	List	The templates of VM instances attached to the auto scaling group.	3.1.0
systemTags	List		3.1.0

SDK Sample

Java SDK

```
UpdateAutoScalingGroupAction action = new UpdateAutoScalingGroupAction();
action.uuid = "17a8d07735b631a688d6f95f3323fe91";
action.name = "test-group2";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAutoScalingGroupAction.Result res = action.call();
```

Python SDK

```
UpdateAutoScalingGroupAction action = UpdateAutoScalingGroupAction()
action.uuid = "17a8d07735b631a688d6f95f3323fe91"
action.name = "test-group2"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAutoScalingGroupAction.Result res = action.call()
```

5.1.8.4 QueryAutoScalingGroup

API Request

URLs

```
GET /v1/autoscaling/groups
```

```
GET /v1/autoscaling/groups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/groups
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/
groups/88dbb881575e37c78e11e988c6db5f64
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAutoScalingGroup**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "test-group2",
      "uuid": "ed73d20804873d48bddee627a58ca71a",
      "description": "just for test",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current	3.1.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingResourceType	String	The resource type of the auto scaling group . Current type: VM instance.	3.1.0
state	String	The state of the auto scaling group.	3.1.0
defaultCooldown	Long	The default cooldown time of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
minResourceSize	Integer	The minimum number of VM instances in the auto scaling group.	3.1.0
maxResourceSize	Integer	The maximum number of VM instances in the auto scaling group.	3.1.0
removalPolicy	String	The default policy for removing a VM instance.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
attachedTemplates	List	The templates of VM instances attached to the auto scaling group.	3.1.0
systemTags	List		3.1.0

SDK Sample

Java SDK

```
QueryAutoScalingGroupAction action = new QueryAutoScalingGroupAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAutoScalingGroupAction.Result res = action.call();
```

Python SDK

```
QueryAutoScalingGroupAction action = QueryAutoScalingGroupAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryAutoScalingGroupAction.Result res = action.call()
```

5.1.8.5 QueryAutoScalingGroupActivity

API Request

URLs

```
GET zstack/v1/autoscaling/groups/activities
```

```
GET zstack/v1/autoscaling/groups/activities/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/groups/activities
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/groups/activities/
e075eb1434203006861a4bd00453f69f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAutoScalingGroupActivity**, and pressing the **Tab** key.

API Response

Sample Response

```
{
```

```

"inventories": [
  {
    "uuid": "036f189a51633ec5bfa2f7e77ec1f5ac",
    "description": "just for test",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
name	String	The resource name.	3.1.0
scalingGroupUuid	String	The UUID of the auto scaling group.	3.1.0
activityAction	String	The type of the auto scaling activity.	3.1.0
scalingGroupRuleUuid	String	The UUID of the auto scaling rule.	3.1.0
cause	String	The reason that triggered the auto scaling activity.	3.1.0
description	String	The detailed description of the auto scaling activity.	3.1.0
status	String	The status of the auto scaling activity.	3.1.0
activityActionResult Message	String	The result of the auto scaling activity.	3.1.0
endDate	Timestamp	The date and time when the auto scaling activity ends.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
QueryAutoScalingGroupActivityAction action = new QueryAutoScalingGroupActivityAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAutoScalingGroupActivityAction.Result res = action.call();
```

Python SDK

```
QueryAutoScalingGroupActivityAction action = QueryAutoScalingGroupActivityAction()
action.conditions = []
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryAutoScalingGroupActivityAction.Result res = action.call()
```

5.1.8.6 CreateAutoScalingGroupAddingNewInstanceRule

API Request

URLs

```
POST zstack/v1/autoscaling/rules/adding-new-instance
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "adjustmentType": "PercentChangeInCapacity",
    "adjustmentValue": 1.0,
    "name": "addingNewInstance",
    "description": "just for test",
    "autoScalingGroupUuid": "9e5900b0682d3eb8868637b455567cbd",
    "cooldown": 10.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"adjustmentType": "PercentChangeInCapacity", "adjustmentValue": 1.0, "name": "addingNewInstance", "description": "just for test", "autoScalingGroupUuid": "9e5900b0682d3eb8868637b455567cbd", "cooldown": 10.0}
http://localhost:8080/zstack/v1/autoscaling/rules/adding-new-instance'
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
adjustment Type	String	body (contained in the params structure)	The scale-out method. Options: • Add a specified number of VM instances. • Add VM instances by percentage. • Add VM instances to a specified number.	• QuantityChangeInCapacity • PercentChangeInCapacity • TotalCapacity	3.1.0
adjustment Value	Integer	body (contained in the params structure)	The scale-out size.		3.1.0
name	String	body (contained in the params structure)	The resource name.		3.1.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.1.0
autoScalingGroupUuid	String	body (contained in the params structure)	The UUID of the auto scaling group.		3.1.0
type	String	body (contained in the params structure)	Optional. The type of the auto scaling rule.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
cooldown	Long	body (contained in the params structure)	Optional. The cooldown time after the auto scaling rule is triggered.		3.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.1.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "type": "HealthProfile",
    "description": "just for test",
    "cooldown": 10.0,
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "name": "test-health-policy",
    "uuid": "f41b2b0ae44637a2af1985e362dc52d4"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0

Name	Type	Description	Starting Version
inventory	AutoScalingRuleInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
type	String	The type of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
cooldown	Long	The cooldown time.	3.1.0
systemTags	List		3.1.0
createDate	Timestamp	The creation date.	3.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.1.0
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingGroupUuid	String		3.1.0
state	AutoScalingRuleState	See state .	3.1.0
status	AutoScalingRuleStatus	See status .	3.1.0
ruleTriggers	List	See ruleTriggers .	3.1.0

#state

Name	Type	Description	Starting Version
Enabled	AutoScalingRuleState	The auto scaling rule is enabled.	3.1.0
Disabled	AutoScalingRuleState	The auto scaling rule is disabled.	3.1.0

#status

Name	Type	Description	Starting Version
Created	AutoScalingRuleStatus	The auto scaling rule is created.	3.1.0
WaitingForTrigger	AutoScalingRuleStatus	The auto scaling rule is waiting to be triggered.	3.1.0
Triggering	AutoScalingRuleStatus	The auto scaling rule is triggered.	3.1.0
Error	AutoScalingRuleStatus		3.1.0

#ruleTriggers

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0

Name	Type	Description	Starting Version
type	String	The trigger type.	3.1.0
ruleUuid	String	The UUID of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
state	String	The state of the trigger.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
CreateAutoScalingGroupAddingNewInstanceRuleAction action = new
CreateAutoScalingGroupAddingNewInstanceRuleAction();
action.adjustmentType = "PercentChangeInCapacity";
action.adjustmentValue = 1.0;
action.name = "addingNewInstance";
action.description = "just for test";
action.autoScalingGroupUuid = "9e5900b0682d3eb8868637b455567cbd";
action.cooldown = 10.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAutoScalingGroupAddingNewInstanceRuleAction.Result res = action.
call();
```

Python SDK

```
CreateAutoScalingGroupAddingNewInstanceRuleAction action = CreateAuto
ScalingGroupAddingNewInstanceRuleAction()
action.adjustmentType = "PercentChangeInCapacity"
action.adjustmentValue = 1.0
action.name = "addingNewInstance"
action.description = "just for test"
action.autoScalingGroupUuid = "9e5900b0682d3eb8868637b455567cbd"
action.cooldown = 10.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateAutoScalingGroupAddingNewInstanceRuleAction.Result res = action.call()
```

5.1.8.7 CreateAutoScalingGroupRemovalInstanceRule

API Request

URLs

```
POST zstack/v1/autoscaling/rules/removal-instance
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "adjustmentType": "PercentChangeInCapacity",
    "adjustmentValue": 1.0,
    "removalPolicy": "MinimumMemoryUsageInstance",
    "name": "removalInstance",
    "description": "just for test",
    "autoScalingGroupUuid": "8a8070f9926733478acad7bf0ba60a63",
    "cooldown": 10.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"adjustmentType": "PercentChangeInCapacity", "adjustmentValue": 1.0, "removalPolicy":
for
test", "autoScalingGroupUuid": "8a8070f9926733478acad7bf0ba60a63", "cooldown": 10.0}
http://localhost:8080/zstack/v1/autoscaling/rules/removal-instance
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
adjustment Type	String	body (contained in the params structure)	The scale-in method. Options: - Remove a specified number of VM instances. - Remove VM instances by percentage. - Remove VM instances to a specified number.	- QuantityChangeInCapacity - PercentChangeInCapacity - TotalCapacity	3.1.0
adjustment Value	Integer	body (contained in the params structure)	The scale-in size.		3.1.0
removalPolicy	String	body (contained in the params structure)	The policy for removing a VM instance.	- OldestInstance - NewestInstance - OldestScalingConfiguration - MinimumCPUUsageInstance - MinimumMemoryUsageInstance	3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		3.1.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.1.0
autoScalingGroupUuid	String	body (contained in the params structure)	The UUID of the auto scaling group.		3.1.0
type	String	body (contained in the params structure)	Optional. The type of the auto scaling rule.		3.1.0
cooldown	Long	body (contained in the params structure)	Optional. The cooldown time after the auto scaling rule is triggered.		3.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.1.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "type": "HealthProfile",
    "description": "just for test",
    "cooldown": 10.0,
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "name": "test-health-policy",
    "uuid": "f41b2b0ae44637a2af1985e362dc52d4"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingRuleInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
type	String	The type of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
cooldown	Long	The cooldown time.	3.1.0
systemTags	List		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingGroupUuid	String		3.1.0
state	AutoScalingRuleState	See state .	3.1.0
status	AutoScalingRuleStatus	See status .	3.1.0
ruleTriggers	List	See ruleTriggers .	3.1.0

#state

Name	Type	Description	Starting Version
Enabled	AutoScalingRuleState	The auto scaling rule is enabled.	3.1.0
Disabled	AutoScalingRuleState	The auto scaling rule is disabled.	3.1.0

#status

Name	Type	Description	Starting Version
Created	AutoScalingRuleStatus	The auto scaling rule is created.	3.1.0
WaitingForTrigger	AutoScalingRuleStatus	The auto scaling rule is waiting to be triggered.	3.1.0
Triggering	AutoScalingRuleStatus	The auto scaling rule is triggered.	3.1.0
Error	AutoScalingRuleStatus		3.1.0

#ruleTriggers

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
type	String	The trigger type.	3.1.0
ruleUuid	String	The UUID of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
state	String	The state of the trigger.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```

CreateAutoScalingGroupRemovalInstanceRuleAction action = new
CreateAutoScalingGroupRemovalInstanceRuleAction();
action.adjustmentType = "PercentChangeInCapacity";
action.adjustmentValue = 1.0;
action.removalPolicy = "MinimumMemoryUsageInstance";
action.name = "removalInstance";
action.description = "just for test";
action.autoScalingGroupUuid = "8a8070f9926733478acad7bf0ba60a63";
action.cooldown = 10.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
CreateAutoScalingGroupRemovalInstanceRuleAction.Result res = action.call();
```

Python SDK

```
CreateAutoScalingGroupRemovalInstanceRuleAction action = CreateAutoScalingGroupRemovalInstanceRuleAction()
action.adjustmentType = "PercentChangeInCapacity"
action.adjustmentValue = 1.0
action.removalPolicy = "MinimumMemoryUsageInstance"
action.name = "removalInstance"
action.description = "just for test"
action.autoScalingGroupUuid = "8a8070f9926733478acad7bf0ba60a63"
action.cooldown = 10.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateAutoScalingGroupRemovalInstanceRuleAction.Result res = action.call()
```

5.1.8.8 DeleteAutoScalingRule

API Request

URLs

```
DELETE zstack/v1/autoscaling/rules/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/autoscaling/
rules/55774c4baaea33c4a47b16c772446077
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the auto scaling rule.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteAutoScalingRuleAction action = new DeleteAutoScalingRuleAction
();
action.uuid = "55774c4baaea33c4a47b16c772446077";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAutoScalingRuleAction.Result res = action.call();
```

Python SDK

```
DeleteAutoScalingRuleAction action = DeleteAutoScalingRuleAction()
action.uuid = "55774c4baaea33c4a47b16c772446077"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteAutoScalingRuleAction.Result res = action.call()
```

5.1.8.9 UpdateAutoScalingRule

API Request

URLs

```
PUT zstack/v1/autoscaling/rules/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAutoScalingRule": {
    "name": "test name2"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAutoScalingRule":{"name":"test
name2"}}' http://localhost:8080/zstack/v1/autoscaling/
rules/4e8be98cd3a93176b9d38f3f934f1c2a/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
name	String	body (contained in the updateAutoScalingRule structure)	Optional. The resource name.		3.1.0
description	String	body (contained in the updateAutoScalingRule structure)	Optional. The detailed description of the resource.		3.1.0
cooldown	Long	body (contained in the updateAutoScalingRule structure)	Optional. The cooldown time.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "type": "HealthProfile",
    "description": "just for test",
    "cooldown": 10.0,
    "state": "Enabled",
    "status": "Created",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "name": "test name2",
    "uuid": "39009f21b4a035c08db6cbff4ebe276c"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingRuleInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
type	String	The type of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
cooldown	Long	The cooldown time.	3.1.0
systemTags	List		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingGroupUuid	String		3.1.0
state	AutoScalingRuleState	See state .	3.1.0
status	AutoScalingRuleStatus	See status .	3.1.0
ruleTriggers	List	See ruleTriggers .	3.1.0

#state

Name	Type	Description	Starting Version
Enabled	AutoScalingRuleState	The auto scaling rule is enabled.	3.1.0
Disabled	AutoScalingRuleState	The auto scaling rule is disabled.	3.1.0

#status

Name	Type	Description	Starting Version
Created	AutoScalingRuleStatus	The auto scaling rule is created.	3.1.0
WaitingForTrigger	AutoScalingRuleStatus	The auto scaling rule is waiting to be triggered.	3.1.0
Triggering	AutoScalingRuleStatus	The auto scaling rule is triggered.	3.1.0
Error	AutoScalingRuleStatus		3.1.0

#ruleTriggers

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
type	String	The trigger type.	3.1.0
ruleUuid	String	The UUID of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
state	String	The state of the trigger.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
UpdateAutoScalingRuleAction action = new UpdateAutoScalingRuleAction();
action.uuid = "4e8be98cd3a93176b9d38f3f934f1c2a";
action.name = "test name2";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAutoScalingRuleAction.Result res = action.call();
```

Python SDK

```
UpdateAutoScalingRuleAction action = UpdateAutoScalingRuleAction()
```

```

action.uuid = "4e8be98cd3a93176b9d38f3f934f1c2a"
action.name = "test name2"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAutoScalingRuleAction.Result res = action.call()

```

5.1.8.10 UpdateAutoScalingGroupAddingNewInstanceRule

API Request

URLs

```
PUT zstack/v1/autoscaling/rules/adding-new-instance/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "updateAutoScalingGroupAddingNewInstanceRule": {
    "name": "test name2"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAutoScalingGroupAddingNewInstanceRule":
{"name":"test name2"}}' http://localhost:8080/zstack/v1/autoscaling/
rules/adding-new-instance/e61646c51ac1396fb6d7d413dc5de3f8/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
adjustment Type	String	body (contained in the updateAutoScalingGroupAddingNewInstanceRule)	Optional. The scale-out method. Options:	- QuantityChangeInCapacity - PercentChangeInCapacity	3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		wlInstanceRule structure)	• Add a specified number of VM instances. • Add VM instances by percentage. • Add VM instances to a specified number.	• TotalCapacity	
adjustment Value	Integer	body (contained in the updateAutoScalingGroupAddingNewInstanceRule structure)	Optional. The scale-out size.		3.1.0
uuid	String	url	The resource UUID.		3.1.0
name	String	body (contained in the updateAutoScalingGroupAddingNewInstanceRule structure)	Optional. The resource name.		3.1.0
description	String	body (contained in the updateAutoScalingGroupAddingNewInstanceRule structure)	Optional. The detailed description of the resource.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		wlInstanceRule structure)			
cooldown	Long	body (contained in the updateAutoScalingGroupAddingNewInstanceRule structure)	Optional. The cooldown time.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "type": "HealthProfile",
    "description": "just for test",
    "cooldown": 10.0,
    "state": "Enabled",
    "status": "Created",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "name": "test name2",
    "uuid": "39009f21b4a035c08db6cbff4ebe276c"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingRuleInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
type	String	The type of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
cooldown	Long	The cooldown time.	3.1.0
systemTags	List		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingGroupUuid	String		3.1.0

Name	Type	Description	Starting Version
state	AutoScalingRuleState	See state .	3.1.0
status	AutoScalingRuleStatus	See status .	3.1.0
ruleTriggers	List	See ruleTriggers .	3.1.0

#state

Name	Type	Description	Starting Version
Enabled	AutoScalingRuleState	The auto scaling rule is enabled.	3.1.0
Disabled	AutoScalingRuleState	The auto scaling rule is disabled.	3.1.0

#status

Name	Type	Description	Starting Version
Created	AutoScalingRuleStatus	The auto scaling rule is created.	3.1.0
WaitingForTrigger	AutoScalingRuleStatus	The auto scaling rule is waiting to be triggered.	3.1.0
Triggering	AutoScalingRuleStatus	The auto scaling rule is triggered.	3.1.0
Error	AutoScalingRuleStatus		3.1.0

#ruleTriggers

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
type	String	The trigger type.	3.1.0
ruleUuid	String	The UUID of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0

Name	Type	Description	Starting Version
state	String	The state of the trigger.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
UpdateAutoScalingGroupAddingNewInstanceRuleAction action = new
UpdateAutoScalingGroupAddingNewInstanceRuleAction();
action.uuid = "e61646c51ac1396fb6d7d413dc5de3f8";
action.name = "test name2";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAutoScalingGroupAddingNewInstanceRuleAction.Result res = action.
call();
```

Python SDK

```
UpdateAutoScalingGroupAddingNewInstanceRuleAction action = UpdateAuto
ScalingGroupAddingNewInstanceRuleAction()
action.uuid = "e61646c51ac1396fb6d7d413dc5de3f8"
action.name = "test name2"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAutoScalingGroupAddingNewInstanceRuleAction.Result res = action.
call()
```

5.1.8.11 UpdateAutoScalingGroupRemovalInstanceRule

API Request

URLs

```
PUT zstack/v1/autoscaling/rules/removal-instance/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAutoScalingGroupRemovalInstanceRule": {
    "name": "test name2"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAutoScalingGroupRemovalInstanceRule":{"name":"test
name2"}}' http://localhost:8080/zstack/v1/autoscaling/rules/removal-
instance/66d7d0b81f1c399bb98063dfb0d3beaf/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
adjustment Type	String	body (contained in the updateAutoScalingGroupRemovalInstanceRule structure)	Optional. The scale-in method. Options: - Remove a specified number of VM instances. - Remove VM instances by percentage. - Remove VM instances to a specified number.	- QuantityChangeInCapacity - PercentChangeInCapacity - TotalCapacity	3.1.0
adjustment Value	Integer	body (contained in the updateAuto	Optional. The scale-in size.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		ScalingGroupRemovalInstanceRule structure)			
removalPolicy	String	body (contained in the updateAutoScalingGroupRemovalInstanceRule structure)	Optional. The policy for removing a VM instance.	• OldestInstance • NewestInstance • OldestScalingConfiguration • MinimumCPUUsageInstance • MinimumMemoryUsageInstance	3.1.0
uuid	String	url	The resource UUID.		3.1.0
name	String	body (contained in the updateAutoScalingGroupRemovalInstanceRule structure)	Optional. The resource name.		3.1.0
description	String	body (contained in the updateAutoScalingGroupRemovalInstanceRule structure)	Optional. The detailed description of the resource.		3.1.0
cooldown	Long	body (contained in the	Optional. The cooldown time		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		updateAutoScalingGroupRemovalInstanceRule (structure)			
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

SDK Sample

```
{
  "inventory": {
    "type": "HealthProfile",
    "description": "just for test",
    "cooldown": 10.0,
    "state": "Enabled",
    "status": "Created",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "name": "test name2",
    "uuid": "39009f21b4a035c08db6cbff4ebe276c"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingRuleInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	3.1.0

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
type	String	The type of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
cooldown	Long	The cooldown time.	3.1.0
systemTags	List		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingGroupUuid	String		3.1.0
state	AutoScalingRuleState	See state .	3.1.0

Name	Type	Description	Starting Version
status	AutoScalingRuleStatus	See status .	3.1.0
ruleTriggers	List	See ruleTriggers .	3.1.0

#state

Name	Type	Description	Starting Version
Enabled	AutoScalingRuleState	The auto scaling rule is enabled.	3.1.0
Disabled	AutoScalingRuleState	The auto scaling rule is disabled.	3.1.0

#status

Name	Type	Description	Starting Version
Created	AutoScalingRuleStatus	The auto scaling rule is created.	3.1.0
WaitingForTrigger	AutoScalingRuleStatus	The auto scaling rule is waiting to be triggered.	3.1.0
Triggering	AutoScalingRuleStatus	The auto scaling rule is triggered.	3.1.0
Error	AutoScalingRuleStatus		3.1.0

#ruleTriggers

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
type	String	The trigger type.	3.1.0
ruleUuid	String	The UUID of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0

Name	Type	Description	Starting Version
state	String	The state of the trigger.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
UpdateAutoScalingGroupRemovalInstanceRuleAction action = new
UpdateAutoScalingGroupRemovalInstanceRuleAction();
action.uuid = "66d7d0b81f1c399bb98063dfb0d3beaf";
action.name = "test name2";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAutoScalingGroupRemovalInstanceRuleAction.Result res = action.
call();
```

Python SDK

```
UpdateAutoScalingGroupRemovalInstanceRuleAction action = UpdateAuto
ScalingGroupRemovalInstanceRuleAction()
action.uuid = "66d7d0b81f1c399bb98063dfb0d3beaf"
action.name = "test name2"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAutoScalingGroupRemovalInstanceRuleAction.Result res = action.
call()
```

5.1.8.12 QueryAutoScalingRule

API Request

URLs

```
GET zstack/v1/autoscaling/groups/rules
```

```
GET zstack/v1/autoscaling/groups/rules/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/groups/rules
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/groups/
rules/404fe677c3213e4bbb39d91a2efb3595
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAutoScalingRule**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "type": "LoadBalanceProfile",
      "description": "just for test",
      "cooldown": 100.0,
      "state": "Enabled",
      "status": "Created",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "name": "test-load-balance-profile",
      "uuid": "a0d075cd82c13084b29f93325651fc65"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0

Name	Type	Description	Starting Version
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventories

Name	Type	Description	Starting Version
type	String	The type of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
cooldown	Long	The cooldown time.	3.1.0
systemTags	List		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingGroupUuid	String		3.1.0
state	AutoScalingRuleState	See state .	3.1.0
status	AutoScalingRuleStatus	See status .	3.1.0
ruleTriggers	List	See ruleTriggers .	3.1.0

#state

Name	Type	Description	Starting Version
Enabled	AutoScalingRuleState	The auto scaling rule is enabled.	3.1.0
Disabled	AutoScalingRuleState	The auto scaling rule is disabled.	3.1.0

#status

Name	Type	Description	Starting Version
Created	AutoScalingRuleStatus	The auto scaling rule is created.	3.1.0
WaitingForTrigger	AutoScalingRuleStatus	The auto scaling rule is waiting to be triggered.	3.1.0
Triggering	AutoScalingRuleStatus	The auto scaling rule is triggered.	3.1.0
Error	AutoScalingRuleStatus		3.1.0

#ruleTriggers

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
type	String	The trigger type.	3.1.0
ruleUuid	String	The UUID of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
state	String	The state of the trigger.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
QueryAutoScalingRuleAction action = new QueryAutoScalingRuleAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAutoScalingRuleAction.Result res = action.call();
```

Python SDK

```
QueryAutoScalingRuleAction action = QueryAutoScalingRuleAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryAutoScalingRuleAction.Result res = action.call()
```

5.1.8.13 CreateAutoScalingRuleAlarmTrigger

API Request

URLs

```
POST zstack/v1/zwatch/alarms/{alarmUuid}/autoscaling/rules/{ruleUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "createAlarmTrigger"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"createAlarmTrigger"}}'
http://localhost:8080/zstack/v1/zwatch/
```

alarms/00f142f73b633bf0ab4a1e34aa84062b/autoscaling/
rules/14b74127a20634c6b6d3566ef33b0600

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
alarmUuid	String	url	The alarm UUID.		3.1.0
triggerType	String	body (contained in the params structure)	Optional. The trigger type.		3.1.0
name	String	body (contained in the params structure)	The trigger name.		3.1.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.1.0
ruleUuid	String	url	The UUID of the auto scaling rule.		3.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.1.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-group",
    "uuid": "d09cd777bb863d6bbfe1267b590e947e",
    "description": "just for test",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingRuleTriggerInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current	3.1.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
type	String	The trigger type.	3.1.0
ruleUuid	String	The UUID of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
state	String	The state of the trigger.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
CreateAutoScalingRuleAlarmTriggerAction action = new CreateAutoScalingRuleAlarmTriggerAction();
action.alarmUuid = "00f142f73b633bf0ab4a1e34aa84062b";
action.name = "createAlarmTrigger";
action.ruleUuid = "14b74127a20634c6b6d3566ef33b0600";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAutoScalingRuleAlarmTriggerAction.Result res = action.call();
```

Python SDK

```
CreateAutoScalingRuleAlarmTriggerAction action = CreateAutoScalingRuleAlarmTriggerAction()
action.alarmUuid = "00f142f73b633bf0ab4a1e34aa84062b"
action.name = "createAlarmTrigger"
action.ruleUuid = "14b74127a20634c6b6d3566ef33b0600"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateAutoScalingRuleAlarmTriggerAction.Result res = action.call()
```

5.1.8.14 CreateAutoScalingRuleSchedulerJobTrigger

API Request

URLs

```
POST zstack/v1/scheduler/jobs/{schedulerJobUuid}/autoscaling/rules/{ruleUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "createAlarmTrigger"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"createAlarmTrigger"}}'
http://localhost:8080/zstack/v1/scheduler/
jobs/2f194775b8ab3e2b912f92a74501a7ea/autoscaling/
rules/852f6e9199c439d0861eec939c5fbbe1
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
schedulerJobUuid	String	url	The scheduled job UUID.		4.1.0
triggerType	String	body (contained in the params structure)	Optional. The trigger type.		4.1.0

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body (contained in the params structure)	The trigger name.		4.1.0
description	String	body (contained in the params structure)	Optional. The detailed description of the trigger.		4.1.0
ruleUuid	String	url	The auto-scaling UUID.		4.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.1.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUIDs.		4.1.0
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-group",
    "uuid": "d09cd777bb863d6bbfe1267b590e947e",
    "description": "just for test",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	4.1.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error	
inventory	AutoScalingRuleTriggerInventory	See inventory	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	4.1.0
uuid	String	The resource UUID.	4.1.0
type	String	The trigger type.	4.1.0

Name	Type	Description	Starting Version
ruleUuid	String	The auto-scaling rule UUID.	4.1.0
description	String	The detailed description of the resource.	4.1.0
state	String	The trigger state.	4.1.0
createDate	Timestamp	The creation time.	4.1.0
lastOpDate	Timestamp	The last update time.	4.1.0

SDK Sample

Java SDK

```
CreateAutoScalingRuleSchedulerJobTriggerAction action = new CreateAutoScalingRuleSchedulerJobTriggerAction();
action.schedulerJobUuid = "2f194775b8ab3e2b912f92a74501a7ea";
action.name = "createAlarmTrigger";
action.ruleUuid = "852f6e9199c439d0861eec939c5fbbe1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAutoScalingRuleSchedulerJobTriggerAction.Result res = action.call();
```

Python SDK

```
CreateAutoScalingRuleSchedulerJobTriggerAction action = CreateAutoScalingRuleSchedulerJobTriggerAction()
action.schedulerJobUuid = "2f194775b8ab3e2b912f92a74501a7ea"
action.name = "createAlarmTrigger"
action.ruleUuid = "852f6e9199c439d0861eec939c5fbbe1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateAutoScalingRuleSchedulerJobTriggerAction.Result res = action.call()
```

5.1.8.15 DeleteAutoScalingRuleTrigger

API Request

URLs

```
DELETE zstack/v1/autoscaling/groups/rules/triggers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/autoscaling/groups/rules/triggers/c81896a39caf320d988503625feb5a84
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteAutoScalingRuleTriggerAction action = new DeleteAutoScalingRuleTriggerAction();
action.uuid = "c81896a39caf320d988503625feb5a84";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAutoScalingRuleTriggerAction.Result res = action.call();
```

Python SDK

```
DeleteAutoScalingRuleTriggerAction action = DeleteAutoScalingRuleTriggerAction()
action.uuid = "c81896a39caf320d988503625feb5a84"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteAutoScalingRuleTriggerAction.Result res = action.call()
```

5.1.8.16 QueryAutoScalingRuleTrigger

API Request

URLs

```
GET zstack/v1/autoscaling/groups/rules/trigger
```

```
GET zstack/v1/autoscaling/groups/rules/trigger/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/groups/rules/
trigger
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/groups/rules/
trigger/7af20bc1523536289223a7410ca04abd
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAutoScalingRuleTrigger**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "test-load-balance-profile",
      "uuid": "cf762471646230209faee02b6423625c",
      "type": "Alarm",
      "description": "just for test",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventories

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0

Name	Type	Description	Starting Version
type	String	The trigger type.	3.1.0
ruleUuid	String	The UUID of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
state	String	The state of the trigger.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
QueryAutoScalingRuleTriggerAction action = new QueryAutoScalingRuleTriggerAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAutoScalingRuleTriggerAction.Result res = action.call();
```

Python SDK

```
QueryAutoScalingRuleTriggerAction action = QueryAutoScalingRuleTriggerAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryAutoScalingRuleTriggerAction.Result res = action.call()
```

5.1.8.17 CreateAutoScalingVmTemplate

API Request

URLs

```
POST zstack/v1/autoscaling/vmtemplate
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmInstanceName": "vm1",
```

```

"vmInstanceDescription": "vm1 desc",
"vmInstanceOfferingUuid": "07e435acb1c230d5b328f23e5a840da2",
"imageUuid": "77407eb341e732b2a45ad5bad4a2c76e",
"l3NetworkUuids": [
  "93edf15377e233a291fe1ab1c4190241"
],
"vmInstanceType": "UserVm",
"rootDiskOfferingUuid": "85f44fe072733d90becb4ddd8a9867de",
"dataDiskOfferingUuids": [
  "22247b0705a43af7a47ed6428c537934"
],
"vmInstanceZoneUuid": "04e22fb60516363a94c93e7f299a1eb3",
"vmInstanceClusterUuid": "792ec8d3dac83f10b29f0924e0787cef",
"hostUuid": "41782afc684036c092a803b58413420e",
"primaryStorageUuidForRootVolume": "8e3de0904fd937bdaaf2d29ea510a4
34",
"defaultL3NetworkUuid": "f7a50ab3ffb038ddb1f366e6f87db083",
"strategy": "InstantStart",
"name": "template1",
"description": "for new vm"
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vmInstanceName": "vm1", "vmInstanceDescription": "vm1
desc", "vmInstanceOfferingUuid": "07e435acb1c230d5b328f23e5a840da2", "imageUuid": "7
["93edf15377e233a291fe1ab1c4190241"], "vmInstanceType": "UserVm", "rootDiskOfferingU
["22247b0705a43af7a47ed6428c537934"], "vmInstanceZoneUuid": "04e22fb60516363a94c93e
new vm"}}' http://localhost:8080/zstack/v1/autoscaling/vmtemplate

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstance Name	String	body (contained in the params structure)	The VM instance name		3.1.0
vmInstance Description	String	body (contained in	Optional. The detailed description		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	of the VM instance.		
vmInstanceOfferingUuid	String	body (contained in the params structure)	The instance offering of the VM instance.		3.1.0
imageUuid	String	body (contained in the params structure)	The image UUID of the VM instance.		3.1.0
l3NetworkUuids	List	body (contained in the params structure)	The L3 networks of the VM instance.		3.1.0
rootDiskOfferingUuid	String	body (contained in the params structure)	Optional. The disk offering of the VM instance root volume.		3.1.0
dataDiskOfferingUuids	List	body (contained in the params structure)	Optional. The disk offerings of the VM instance data volumes.		3.1.0
vmInstanceZoneUuid	String	body (contained in the params structure)	Optional. The zone to which the VM instance belongs.		3.1.0
vmInstanceClusterUuid	String	body (contained in the params structure)	Optional. The cluster to which the VM instance belongs.		3.1.0
hostUuid	String	body (contained in	Optional. The host UUID.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	Optional. The UUID of the primary storage where the root volume locates.		3.1.0
defaultL3NetworkUuid	String	body (contained in the params structure)	The default L3 network of the VM instance.		3.1.0
name	String	body (contained in the params structure)	The resource name.		3.1.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.1.0
type	String	body (contained in the params structure)	Optional. The template type.		3.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.1.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

**Note:**

- ZStack Cloud allows you to attach an affinity group to an auto-scaling group by using the `systemTags` parameter. You can set the value of the **systemTags** parameter to the **affinityGroupUuid** option.
 - The format of the option is `affinityGroupUuid::affinity group uuid`.
 - For example, `affinityGroupUuid::ade3ccc31fc63ac2937b2210c21c39b1`.

API Response

Sample Response

```
{
  "inventory": {
    "name": "template",
    "description": "desc",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingTemplateInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
name	String	The resource name.	3.1.0
description	String	The detailed description of the resource.	3.1.0
type	String	The template type.	3.1.0
state	String	The state of the template.	3.1.0
systemTags	List		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```

CreateAutoScalingVmTemplateAction action = new CreateAutoScalingVmTemplateAction();
action.vmInstanceName = "vm1";
action.vmInstanceDescription = "vm1 desc";
action.vmInstanceOfferingUuid = "07e435acb1c230d5b328f23e5a840da2";
action.imageUuid = "77407eb341e732b2a45ad5bad4a2c76e";
action.l3NetworkUuids = asList("93edf15377e233a291fe1ab1c4190241");
action.vmInstanceType = "UserVm";
action.rootDiskOfferingUuid = "85f44fe072733d90becb4ddd8a9867de";
action.dataDiskOfferingUuids = asList("22247b0705a43af7a47ed6428c537934");
action.vmInstanceZoneUuid = "04e22fb60516363a94c93e7f299a1eb3";

```

```

action.vmInstanceClusterUuid = "792ec8d3dac83f10b29f0924e0787cef";
action.hostUuid = "41782afc684036c092a803b58413420e";
action.primaryStorageUuidForRootVolume = "8e3de0904fd937bdaaf2
d29ea510a434";
action.defaultL3NetworkUuid = "f7a50ab3ffb038ddb1f366e6f87db083";
action.strategy = "InstantStart";
action.name = "template1";
action.description = "for new vm";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAutoScalingVmTemplateAction.Result res = action.call();

```

Python SDK

```

CreateAutoScalingVmTemplateAction action = CreateAutoScalingVmT
emplateAction()
action.vmInstanceName = "vm1"
action.vmInstanceDescription = "vm1 desc"
action.vmInstanceOfferingUuid = "07e435acb1c230d5b328f23e5a840da2"
action.imageUuid = "77407eb341e732b2a45ad5bad4a2c76e"
action.l3NetworkUuids = [93edf15377e233a291fe1ab1c4190241]
action.vmInstanceType = "UserVm"
action.rootDiskOfferingUuid = "85f44fe072733d90becb4ddd8a9867de"
action.dataDiskOfferingUuids = [22247b0705a43af7a47ed6428c537934]
action.vmInstanceZoneUuid = "04e22fb60516363a94c93e7f299a1eb3"
action.vmInstanceClusterUuid = "792ec8d3dac83f10b29f0924e0787cef"
action.hostUuid = "41782afc684036c092a803b58413420e"
action.primaryStorageUuidForRootVolume = "8e3de0904fd937bdaaf2
d29ea510a434"
action.defaultL3NetworkUuid = "f7a50ab3ffb038ddb1f366e6f87db083"
action.strategy = "InstantStart"
action.name = "template1"
action.description = "for new vm"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateAutoScalingVmTemplateAction.Result res = action.call()

```

5.1.8.18 AttachAutoScalingTemplateToGroup

API Request

URLs

```
POST zstack/v1/autoscaling/template/{uuid}/groups/{groupUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {},
  "systemTags": [],
  "userTags": []
}

```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/
v1/autoscaling/template/a53e0f84df15313bba8560f6567da2d9/
groups/284172349b50324a9c2b8a09a28b3294
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The template UUID.		3.1.0
groupUuid	String	url	The UUID of the auto scaling group.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response**Sample Response**

```
{
  "inventory": {
    "name": "test-group",
    "uuid": "32d1739bb918364a840d0ff0130eda61",
    "description": "just for test",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "attachedTemplates": [
      "e54e8d9e51113de2b6742ace7bfee306"
    ]
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingGroupInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
scalingResourceType	String	The type of the auto scaling resource: VM instance.	3.1.0
state	String	The state of the auto scaling group.	3.1.0
defaultCooldown	Long	The default cooldown time of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
minResourceSize	Integer	The minimum number of VM instances in the auto scaling group.	3.1.0
maxResourceSize	Integer	The maximum number of VM instances in the auto scaling group.	3.1.0
removalPolicy	String	The default policy for removing a VM instance.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
attachedTemplates	List	The templates of VM instances attached to the auto scaling group.	3.1.0
systemTags	List		3.1.0

SDK Sample

Java SDK

```
AttachAutoScalingTemplateToGroupAction action = new AttachAutoScalingTemplateToGroupAction();
action.uuid = "a53e0f84df15313bba8560f6567da2d9";
action.groupUuid = "284172349b50324a9c2b8a09a28b3294";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AttachAutoScalingTemplateToGroupAction.Result res = action.call();
```

Python SDK

```
AttachAutoScalingTemplateToGroupAction action = AttachAutoScalingTemplateToGroupAction()
action.uuid = "a53e0f84df15313bba8560f6567da2d9"
action.groupUuid = "284172349b50324a9c2b8a09a28b3294"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachAutoScalingTemplateToGroupAction.Result res = action.call()
```

5.1.8.19 DeleteAutoScalingTemplate

API Request

URLs

```
DELETE zstack/v1/autoscaling/template/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/autoscaling/
template/5c9e41a7d5c9335f99d639e75c294392
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
```



```

    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```

DeleteAutoScalingTemplateAction action = new DeleteAutoScalingTemplateAction();
action.uuid = "5c9e41a7d5c9335f99d639e75c294392";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAutoScalingTemplateAction.Result res = action.call();

```

Python SDK

```

DeleteAutoScalingTemplateAction action = DeleteAutoScalingTemplateAction();
action.uuid = "5c9e41a7d5c9335f99d639e75c294392";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAutoScalingTemplateAction.Result res = action.call();

```

5.1.8.20 DetachAutoScalingTemplateFromGroup

API Request

URLs

```
DELETE zstack/v1/autoscaling/template/{uuid}/groups/{groupUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/autoscaling/template/801a456fff0a355f9159d74af32026b9/groups/bdbbb1d168023ec7b9331bddd1b55b88

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
templateUuid	String	body	The template UUID.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
groupUuid	String	url	The UUID of the auto scaling group.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-group",
    "uuid": "33cebe4b8d0b3e34bf2f9c517234bac9",
    "description": "just for test",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	AutoScalingGroupInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
scalingResourceType	String	The type of the auto scaling resource: VM instance.	3.1.0
state	String	The state of the auto scaling group.	3.1.0
defaultCooldown	Long	The default cooldown time of the auto scaling rule.	3.1.0
description	String	The detailed description of the resource.	3.1.0
minResourceSize	Integer	The minimum number of VM instances in the auto scaling group.	3.1.0
maxResourceSize	Integer	The maximum number of VM instances in the auto scaling group.	3.1.0

Name	Type	Description	Starting Version
removalPolicy	String	The default policy for removing a VM instance.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
attachedTemplates	List	The templates of VM instances attached to the auto scaling group.	3.1.0
systemTags	List		3.1.0

SDK Sample

Java SDK

```
DetachAutoScalingTemplateFromGroupAction action = new DetachAutoScalingTemplateFromGroupAction();
action.templateUuid = "801a456fff0a355f9159d74af32026b9";
action.groupUuid = "bdbbb1d168023ec7b9331bddd1b55b88";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachAutoScalingTemplateFromGroupAction.Result res = action.call();
```

Python SDK

```
DetachAutoScalingTemplateFromGroupAction action = DetachAutoScalingTemplateFromGroupAction()
action.templateUuid = "801a456fff0a355f9159d74af32026b9"
action.groupUuid = "bdbbb1d168023ec7b9331bddd1b55b88"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DetachAutoScalingTemplateFromGroupAction.Result res = action.call()
```

5.1.8.21 QueryAutoScalingVmTemplate

API Request

URLs

```
GET zstack/v1/autoscaling/vmtemplate
```

```
GET zstack/v1/autoscaling/vmtemplate/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/vmtemplate
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/
vmtemplate/8b6b502328bc3755a237f9a67980dd32
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAutoScalingVmTemplate**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "l3NetworkUids": [
        "9f56c162374d382f9ddb7c383bce6887",
        "8e07df171471330c83306d78063fba69"
      ],
      "rootDiskOfferingUuid": "57fb695d2d033c1e849dac6fb87cebb5",
      "dataDiskOfferingUids": [
        "52bfe290f5363130a1452e2ca1c57783",
        "8022018c7f6834d4a7a62a02128672ed"
      ],
      "vmInstanceZoneUuid": "cefa21204105347a82148c099c09a0cb",
      "vmInstanceClusterUuid": "ad7fcc77266f34e8a64fd208a9b7ed38",
      "hostUuid": "975ceb93de173b22a2b073ee856166e3",
      "primaryStorageUuidForRootVolume": "87cf45bf5a37364d85ae
9968af7d2bd1",
      "defaultL3NetworkUuid": "8e07df171471330c83306d78063fba69",
```

```

    "uuid": "785259bf48303b0d9a4a34ddc3774da5",
    "name": "test-template",
    "description": "just for test",
    "type": "VmInstance",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventories

Name	Type	Description	Starting Version
vmInstanceName	String	The VM instance name.	3.1.0
vmInstanceType	String	The VM instance type.	3.1.0
vmInstanceDescription	String	The VM instance description.	3.1.0
vmInstanceOfferingUuid	String	The instance offering of the VM instance.	3.1.0
imageUuid	String	The image UUID of the VM instance.	3.1.0
l3NetworkUuids	List	The L3 networks of the VM instance.	3.1.0
rootDiskOfferingUuid	String	The disk offering of the VM instance root volume.	3.1.0
dataDiskOfferingUuids	List	The disk offerings of the VM instance data volumes.	3.1.0
vmInstanceZoneUuid	String	The zone to which the VM instance belongs.	3.1.0
vmInstanceClusterUuid	String	The cluster to which the VM instance belongs.	3.1.0
hostUuid	String	The host UUID of the VM instance.	3.1.0
primaryStorageUuidForRootVolume	String	The primary storage where the root volume of the VM instance locates.	3.1.0
defaultL3NetworkUuid	String	The default L3 network of the VM instance.	3.1.0
uuid	String	The resource UUID.	3.1.0
name	String	The resource name.	3.1.0
description	String	The detailed description of the resource.	3.1.0
type	String	The template type.	3.1.0

Name	Type	Description	Starting Version
state	String	The template state.	3.1.0
systemTags	List		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
QueryAutoScalingVmTemplateAction action = new QueryAutoScalingVmTemplateAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAutoScalingVmTemplateAction.Result res = action.call();
```

Python SDK

```
QueryAutoScalingVmTemplateAction action = QueryAutoScalingVmTemplateAction();
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryAutoScalingVmTemplateAction.Result res = action.call()
```

5.1.8.22 DeleteAutoScalingGroupInstance

API Request

URLs

```
DELETE zstack/v1/autoscaling/groups/instances/{instanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/autoscaling/groups/instances/3f55b1b15c273122b6b815218282efe5
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
instanceUuid	String	url	The VM instance UUID		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteAutoScalingGroupInstanceAction action = new DeleteAutoScalingGroupInstanceAction();
action.instanceUuid = "3f55b1b15c273122b6b815218282efe5";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAutoScalingGroupInstanceAction.Result res = action.call();
```

Python SDK

```
DeleteAutoScalingGroupInstanceAction action = DeleteAutoScalingGroupInstanceAction()
action.instanceUuid = "3f55b1b15c273122b6b815218282efe5"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteAutoScalingGroupInstanceAction.Result res = action.call()
```

5.1.8.23 QueryAutoScalingGroupInstance

API Request

URLs

```
GET zstack/v1/autoscaling/groups/instances
```

```
GET zstack/v1/autoscaling/groups/instances/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/groups/instances
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/autoscaling/groups/instances/87d8ab674af337deabc1af2c24bc3733
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAutoScalingGroupInstance**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "c23dc6fd3dd13436b5d65b0a4d328f2c",
      "instanceUuid": "1dcb05b79b2b3a61b74114ff3aa00266",
      "description": "just for test",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	3.1.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
instanceUuid	String	The VM instance UUID.	3.1.0
scalingGroupUuid	String	The UUID of the auto scaling group.	3.1.0

Name	Type	Description	Starting Version
templateUuid	String	The UUID of the VM instance template in the auto scaling group.	3.1.0
scalingGroupActivityUuid	String	The UUID of the auto scaling activity.	3.1.0
status	String	The status of the VM instance in the auto scaling group.	3.1.0
healthStatus	String	The health status of the VM instance in the auto scaling group.	3.1.0
description	String	The detailed description of the resource.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
protectionStrategy	String	The instance protection strategy.	0.6

SDK Sample

Java SDK

```
QueryAutoScalingGroupInstanceAction action = new QueryAutoScalingGroupInstanceAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAutoScalingGroupInstanceAction.Result res = action.call();
```

Python SDK

```
QueryAutoScalingGroupInstanceAction action = QueryAutoScalingGroupInstanceAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryAutoScalingGroupInstanceAction.Result res = action.call()
```

5.1.8.24 ChangeAutoScalingGroupState

API Request

URLs

```
PUT zstack/v1/autoscaling/groups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeAutoScalingGroupState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeAutoScalingGroupState":{"stateEvent":"disable"}}'
http://localhost:8080/zstack/v1/autoscaling/
groups/384ac055e3113366907f06e8aaefb12d/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
stateEvent	String	body (contained in the changeAutoScalingGro	Whether to enable or disable the auto scaling group.	- enable - disable	3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		upState structure)			
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ChangeAutoScalingGroupStateAction action = new ChangeAutoScalingGro
upStateAction();
action.uuid = "384ac055e3113366907f06e8aaefb12d";
action.stateEvent = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeAutoScalingGroupStateAction.Result res = action.call();
```

Python SDK

```
ChangeAutoScalingGroupStateAction action = ChangeAutoScalingGro
upStateAction()
action.uuid = "384ac055e3113366907f06e8aaefb12d"
action.stateEvent = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeAutoScalingGroupStateAction.Result res = action.call()
```

5.1.8.25 ExecuteAutoScalingRule

API Request

URLs

```
PUT zstack/v1/autoscaling/rules/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "executeAutoScalingRule": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"executeAutoScalingRule":{}}'
http://localhost:8080/zstack/v1/autoscaling/
rules/9311aaae28333775b3339b644961c990/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the auto scaling rule.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "scalingActivityUuid": "20ba90ed9e1631768fd7b896569fae62"
}
```

Name	Type	Description	Starting Version
scalingActivityUuid	String	The UUID of the auto scaling activity.	3.9.0
success	boolean		3.9.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
error	ErrorCode	See error .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.9.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

SDK Sample

Java SDK

```
ExecuteAutoScalingRuleAction action = new ExecuteAutoScalingRuleAction();
action.uuid = "9311aaae28333775b3339b644961c990";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ExecuteAutoScalingRuleAction.Result res = action.call();
```

Python SDK

```
ExecuteAutoScalingRuleAction action = ExecuteAutoScalingRuleAction()
action.uuid = "9311aaae28333775b3339b644961c990"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ExecuteAutoScalingRuleAction.Result res = action.call()
```

5.1.8.26 UpdateAutoScalingGroupInstance

API Request

URLs

```
PUT zstack/v1/autoscaling/groups/instances/{instanceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAutoScalingGroupInstance": {
    "groupUuid": "a3b7616d6e6a3ed6bdf5dd5a640a4548",
    "protectionStrategy": "Protected"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAutoScalingGroupInstance":
{"groupUuid":"a3b7616d6e6a3ed6bdf5dd5a640a4548","protectionStrategy":"Protected"}'
http://localhost:8080/zstack/v1/autoscaling/groups/instances/
a6dcd12ee95e345787a34175327df816/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
groupUuid	String	body (contained in the updateAuto ScalingGro	The UUID of the auto scaling group.		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
		upInstance structure)			
instanceUuid	String	url	The UUID of the VM instance in the auto scaling group.		3.9.0
protectionStrategy	String	body (contained in the updateAutoScalingGroupInstance structure)	Optional. The VM protection strategy of the auto scaling group. - Protected - Unprotected		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UpdateAutoScalingGroupInstanceAction action = new UpdateAutoScalingGroupInstanceAction();
action.groupUuid = "a3b7616d6e6a3ed6bdf5dd5a640a4548";
action.instanceUuid = "a6dcd12ee95e345787a34175327df816";
action.protectionStrategy = "Protected";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
UpdateAutoScalingGroupInstanceAction.Result res = action.call();
```

Python SDK

```
UpdateAutoScalingGroupInstanceAction action = UpdateAutoScalingGro
upInstanceAction()
action.groupUuid = "a3b7616d6e6a3ed6bdf5dd5a640a4548"
action.instanceUuid = "a6dcd12ee95e345787a34175327df816"
action.protectionStrategy = "Protected"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAutoScalingGroupInstanceAction.Result res = action.call()
```

5.1.8.27 UpdateAutoScalingVmTemplate

API Request

URLs

```
PUT zstack/v1/autoscaling/vmtemplate/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAutoScalingVmTemplate": {
    "name": "template",
    "description": "for new vm",
    "vmInstanceName": "vm",
    "vmInstanceDescription": "vm desc",
    "vmInstanceOfferingUuid": "af0462e292513725aa228476d0f08ac3",
    "imageUuid": "9dc29a7b3e603a7cb26bc1d16eccc1f1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAutoScalingVmTemplate":
{"name":"template","description":"for new
vm","vmInstanceName":"vm","vmInstanceDescription":"vm
desc","vmInstanceOfferingUuid":"af0462e292513725aa228476d0f08ac3","imageUuid":"9
```

<http://localhost:8080/zstack/v1/autoscaling/vmtemplate/dfb4e8245e32361db57b92c95c84c01b/actions>

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VM template UUID.		3.9.0
name	String	body (contained in the updateAutoScalingVmTemplate structure)	Optional. The template name.		3.9.0
description	String	body (contained in the updateAutoScalingVmTemplate structure)	Optional. The detailed description.		3.9.0
vmInstance Name	String	body (contained in the updateAutoScalingVmTemplate structure)	Optional. The name of the VM instance.		3.9.0
vmInstance Description	String	body (contained in the updateAutoScalingVmTemplate structure)	Optional. The description of the VM instance.		3.9.0
vmInstance OfferingUuid	String	body (contained in the updateAuto	Optional. The instance offering UUID		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
		ScalingVmTemplate structure)	of the VM instance.		
imageUuid	String	body (contained in the updateAutoScalingVmTemplate structure)	Optional. The UUID of the VM image.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "template",
    "description": "desc",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventory	AutoScalingTemplateInventory	See inventory .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	3.9.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
type	String	The template type.	3.9.0
state	String	The state of the template.	3.9.0
systemTags	List		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
UpdateAutoScalingVmTemplateAction action = new UpdateAutoScalingVmTemplateAction();
action.uuid = "dfb4e8245e32361db57b92c95c84c01b";
action.name = "template";
action.description = "for new vm";
action.vmInstanceName = "vm";
action.vmInstanceDescription = "vm desc";
action.vmInstanceOfferingUuid = "af0462e292513725aa228476d0f08ac3";
action.imageUuid = "9dc29a7b3e603a7cb26bc1d16eccc1f1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAutoScalingVmTemplateAction.Result res = action.call();
```

Python SDK

```
UpdateAutoScalingVmTemplateAction action = UpdateAutoScalingVmTemplateAction()
action.uuid = "dfb4e8245e32361db57b92c95c84c01b"
action.name = "template"
action.description = "for new vm"
action.vmInstanceName = "vm"
action.vmInstanceDescription = "vm desc"
action.vmInstanceOfferingUuid = "af0462e292513725aa228476d0f08ac3"
action.imageUuid = "9dc29a7b3e603a7cb26bc1d16eccc1f1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAutoScalingVmTemplateAction.Result res = action.call()
```

5.1.9 Snapshot Group Operations

5.1.9.1 CreateVolumeSnapshotGroup

API Request

URLs

```
POST zstack/v1/volume-snapshots/group
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "rootVolumeUuid": "901cae4fd9f43a1ca20da4146ddaec50",
    "name": "test"
  },
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"rootVolumeUuid": "901cae4fd9f43a1ca20da4146ddaec50", "name": "test"}}'
http://localhost:8080/zstack/v1/volume-snapshots/group
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
rootVolumeUuid	String	body (contained in the params structure)	The root volume UUID.		3.6.0
name	String	body (contained in the params structure)	The resource name.		3.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.6.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "4b13e23059033e2dbfac63b5b16eba11",
    "snapshotCount": 1.0,
    "name": "group",
    "vmInstanceId": "9ff17180fded31c2b9e4e5751ebcb2ba",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "volumeSnapshotRefs": [
      {
        "volumeSnapshotUuid": "e83b2d306f0d353a889096ca0b44b444",
        "volumeSnapshotGroupUuid": "4b13e23059033e2dbfac63b5b16eba11",
        "deviceId": 0.0,
        "snapshotDeleted": false,
        "volumeUuid": "edc07fe8d8a335ec8aa00f23b88fc1c6",
        "volumeName": "ROOT-volume",
        "volumeType": "Root",
        "volumeSnapshotInstallPath": "/Cloud_ps/to/path/snap.qcow2",
        "volumeSnapshotName": "group-ROOT-volume",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	VolumeSnapshotGroupInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	3.6.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
snapshotCount	Integer	The number of snapshots in the snapshot group.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
vmInstanceUuid	String	The VM instance UUID.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
volumeSnapshotRefs	List	See volumeSnapshotRefs .	3.6.0

#volumeSnapshotRefs

Name	Type	Description	Starting Version
volumeSnapshotUuid	String	The volume snapshot UUID.	3.6.0
volumeSnapshotGroupUuid	String	The snapshot group UUID.	3.6.0
deviceId	int	The device ID of the volume when the snapshot is taken.	3.6.0
snapshotDeleted	boolean	Whether the snapshot is deleted.	3.6.0
volumeUuid	String	The volume UUID.	3.6.0
volumeName	String	The volume name.	3.6.0
volumeType	String	The volume type.	3.6.0
volumeSnapshotInstallPath	String	The path to install the snapshot.	3.6.0
volumeSnapshotName	String	The snapshot name.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
CreateVolumeSnapshotGroupAction action = new CreateVolumeSnapshotGroupAction();
action.rootVolumeUuid = "901cae4fd9f43a1ca20da4146ddaec50";
action.name = "test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVolumeSnapshotGroupAction.Result res = action.call();
```

Python SDK

```
CreateVolumeSnapshotGroupAction action = CreateVolumeSnapshotGroupAction()
action.rootVolumeUuid = "901cae4fd9f43a1ca20da4146ddaec50"
action.name = "test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateVolumeSnapshotGroupAction.Result res = action.call()
```

5.1.9.2 DeleteVolumeSnapshotGroup

API Request

URLs

```
DELETE zstack/v1/volume-snapshots/group/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/volume-snapshots/group/
f7b2175eebba3161b029689cb32f9b14?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
deleteMode	String	body	Optional. The delete mode.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "results": [
    {
      "success": false,
      "error": {
        "code": "SYS.1001",
        "description": "internal error"
      }
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
results	List	See results .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#results

Name	Type	Description	Starting Version
snapshotUuid	String	The snapshot UUID.	3.6.0
volumeUuid	String	The volume UUID.	3.6.0

Name	Type	Description	Starting Version
success	boolean		3.6.0
error	ErrorCode	See error .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

SDK Sample

Java SDK

```
DeleteVolumeSnapshotGroupAction action = new DeleteVolumeSnapshotGroupAction();
action.uuid = "f7b2175eebba3161b029689cb32f9b14";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVolumeSnapshotGroupAction.Result res = action.call();
```

Python SDK

```
DeleteVolumeSnapshotGroupAction action = DeleteVolumeSnapshotGroupAction()
```

```

action.uuid = "f7b2175eebba3161b029689cb32f9b14"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteVolumeSnapshotGroupAction.Result res = action.call()

```

5.1.9.3 UpdateVolumeSnapshotGroup

API Request

URLs

```
PUT zstack/v1/volume-snapshots/group/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "updateVolumeSnapshotGroup": {
    "name": "new name"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVolumeSnapshotGroup":{"name":"new name"}}'
http://localhost:8080/zstack/v1/volume-snapshots/group/
c39089cddb836628f346b14beafe2d3/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the updateVolumeSnapshot	Optional. The resource name.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		Group structure)			
description	String	body (contained in the updateVolumeSnapshotGroup structure)	Optional. The detailed description of the resource.		3.6.0
uuid	String	url	The resource UUID.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a261086918fe3c04be683430f15920a2",
    "snapshotCount": 1.0,
    "name": "group",
    "vmInstanceUuid": "98ac921100b43981b493071b6430bb2b",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "volumeSnapshotRefs": [
      {
        "volumeSnapshotUuid": "7ac8675cd8a9389ca343a2a7d49c47d7",
        "volumeSnapshotGroupUuid": "a261086918fe3c04be683430f15920a2",
        "deviceId": 0.0,
        "snapshotDeleted": false,
        "volumeUuid": "6fb0e4a0c3d6315bbb5c08a1a33bc231",
        "volumeName": "ROOT-volume",
        "volumeType": "Root",
        "volumeSnapshotInstallPath": "/Cloud_ps/to/path/snap.qcow2",
        "volumeSnapshotName": "group-ROOT-volume",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	VolumeSnapshotGroupInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0

Name	Type	Description	Starting Version
snapshotCount	Integer	The number of snapshots in the snapshot group.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
vmInstanceUuid	String	The VM instance UUID.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
volumeSnapshotRefs	List	See volumeSnapshotRefs .	3.6.0

#volumeSnapshotRefs

Name	Type	Description	Starting Version
volumeSnapshotUuid	String	The volume snapshot UUID.	3.6.0
volumeSnapshotGroupUuid	String	The snapshot group UUID.	3.6.0
deviceId	int	The device ID of the volume when the snapshot is taken.	3.6.0
snapshotDeleted	boolean	Whether the snapshot is deleted.	3.6.0
volumeUuid	String	The volume UUID.	3.6.0
volumeName	String	The volume name.	3.6.0
volumeType	String	The volume type.	3.6.0
volumeSnapshotInstallPath	String	The path to install the snapshot.	3.6.0
volumeSnapshotName	String	The snapshot name.	3.6.0
createDate	Timestamp	The creation date.	3.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
UpdateVolumeSnapshotGroupAction action = new UpdateVolumeSnapshotGroupAction();
action.name = "new name";
action.uuid = "c39089cddb836628f346b14beafe2d3";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVolumeSnapshotGroupAction.Result res = action.call();
```

Python SDK

```
UpdateVolumeSnapshotGroupAction action = UpdateVolumeSnapshotGroupAction()
action.name = "new name"
action.uuid = "c39089cddb836628f346b14beafe2d3"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVolumeSnapshotGroupAction.Result res = action.call()
```

5.1.9.4 QueryVolumeSnapshotGroup

API Request

URLs

```
GET zstack/v1/volume-snapshots/group
```

```
GET zstack/v1/volume-snapshots/group/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/volume-snapshots/group?
q=uuid=9480c1736b9c3798b3030cd990f0db8f
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/volume-snapshots/
group/91c3de9ffbc73475a84b8038c8a2349c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVolumeSnapshotGroup**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "2c95e5285a733df6a2b70e198282f594",
      "snapshotCount": 1.0,
      "name": "group",
      "vmInstanceUuid": "371076859fa9326fba89633429f0aa06",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "volumeSnapshotRefs": [
        {
          "volumeSnapshotUuid": "bb6bc37f1c483ac1b7703b6ba58a2081",
          "volumeSnapshotGroupUuid": "2c95e5285a733df6a2b70e198282f594"
        }
      ],
      "deviceId": 0.0,
      "snapshotDeleted": false,
      "volumeUuid": "6ff4fae70b79328bb0233313adb1226b",
      "volumeName": "ROOT-volume",
      "volumeType": "Root",
      "volumeSnapshotInstallPath": "/Cloud_ps/to/path/snap.qcow2",
      "volumeSnapshotName": "group-ROOT-volume",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	3.6.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
snapshotCount	Integer	The number of snapshots in the snapshot group.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
vmInstanceUuid	String	The VM instance UUID.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
volumeSnapshotRefs	List	See volumeSnapshotRefs .	3.6.0

#volumeSnapshotRefs

Name	Type	Description	Starting Version
volumeSnapshotUuid	String	The volume snapshot UUID.	3.6.0
volumeSnapshotGroupUuid	String	The snapshot group UUID.	3.6.0
deviceId	int	The device ID of the volume when the snapshot is taken.	3.6.0
snapshotDeleted	boolean	Whether the snapshot is deleted.	3.6.0
volumeUuid	String	The volume UUID.	3.6.0
volumeName	String	The volume name.	3.6.0
volumeType	String	The volume type.	3.6.0
volumeSnapshotInstallPath	String	The path to install the snapshot.	3.6.0
volumeSnapshotName	String	The snapshot name.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
QueryVolumeSnapshotGroupAction action = new QueryVolumeSnapshotGroupAction();
action.conditions = asList("uuid=102cde8f217430aaaf5652460adb7d7e");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVolumeSnapshotGroupAction.Result res = action.call();
```

Python SDK

```
QueryVolumeSnapshotGroupAction action = QueryVolumeSnapshotGroupAction()
action.conditions = ["uuid=3ad89f9fbe823083b1918f872381a1f5"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryVolumeSnapshotGroupAction.Result res = action.call()
```

5.1.9.5 CheckVolumeSnapshotGroupAvailability

API Request

URLs

```
GET zstack/v1/volume-snapshots/groups/availabilities
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/volume-snapshots/groups/
availabilities?uuids=cc389f9eb3223c698f565621d2abcf72
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuids	List	query	The snapshot group UUIDs.		3.6.0
systemTags	List	query	Optional. The system tags.		3.6.0
userTags	List	query	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "results": [
    {
      "uuid": "78dd38e3e58134cead860f270143a474",
      "available": true,
      "reason": ""
    }
  ]
}
```


}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
results	List	See results .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#results

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0

Name	Type	Description	Starting Version
available	boolean	Whether the volume snapshot group is available.	3.6.0
reason	String	The reason why the volume snapshot group is unavailable. If the volume snapshot group is available, this parameter is null.	3.6.0

SDK Sample

Java SDK

```
CheckVolumeSnapshotGroupAvailabilityAction action = new CheckVolumeSnapshotGroupAvailabilityAction();
action.uuids = asList("cc389f9eb3223c698f565621d2abcf72");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckVolumeSnapshotGroupAvailabilityAction.Result res = action.call();
```

Python SDK

```
CheckVolumeSnapshotGroupAvailabilityAction action = CheckVolumeSnapshotGroupAvailabilityAction()
action.uuids = [cc389f9eb3223c698f565621d2abcf72]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CheckVolumeSnapshotGroupAvailabilityAction.Result res = action.call()
```

5.1.9.6 RevertVmFromSnapshotGroup

API Request

URLs

```
PUT zstack/v1/volume-snapshots/group/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "revertVmFromSnapshotGroup": {},
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"revertVmFromSnapshotGroup":{}}'
http://localhost:8080/zstack/v1/volume-snapshots/
group/37050441a903313297e65e09ccbeb30f/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The snapshot group UUID.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample**Java SDK**

```
RevertVmFromSnapshotGroupAction action = new RevertVmFromSnapshot
GroupAction();
action.uuid = "37050441a903313297e65e09ccbeb30f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
RevertVmFromSnapshotGroupAction.Result res = action.call();
```

Python SDK

```
RevertVmFromSnapshotGroupAction action = RevertVmFromSnapshotGroupAction()
action.uuid = "37050441a903313297e65e09ccbeb30f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RevertVmFromSnapshotGroupAction.Result res = action.call()
```

5.1.9.7 UndoSnapshotCreation

API Request

URLs

```
PUT zstack/v1/volumes/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "undoSnapshotCreation": {
    "snapShotUuid": "7677380457d136629f44c93c99978acc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"undoSnapshotCreation":
{"snapShotUuid":"7677380457d136629f44c93c99978acc"}}' http://
localhost:8080/zstack/v1/volumes/7fc32ad187c939d8aca65977560c2714/
actions
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		4.8.0
snapshotUuid	String	body (contained in the undoSnapshotCreation structure)			4.8.0
systemTags	List	body	Optional. The system tags.		4.8.0
userTags	List	body	Optional. The user tags.		4.8.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7c3af161f36e3c2ca8661e8f825a9a4d",
    "name": "test-volume",
    "primaryStorageUuid": "c5b8c1bc2db337ac83b5a867046e145d",
    "vmInstanceUuid": "d6d25288e0973da58921dc13cb58c653",
    "diskOfferingUuid": "5547f17f3df234278ce7f44bb8fdf131",
    "rootImageUuid": "a976ad9fc6493bd88ea7ef05e9028dc1",
    "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-7c3af161f36e3c2ca8661e8f825a9a4d/7c3af161f36e3c2ca8661e8f825a9a4d.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 107374182400,
    "actualSize": 21474836480,
    "deviceId": 0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.8.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	VolumeInventory	See inventory .	4.8.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.8.0
description	String	The brief description of the error.	4.8.0
details	String	The details about the error.	4.8.0
elaboration	String	The reserved field. Default value: null.	4.8.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.8.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.8.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.8.0
name	String	The resource name.	4.8.0
description	String	The resource description.	4.8.0
primaryStorageUuid	String	The primary storage UUID.	4.8.0

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	4.8.0
diskOfferingUuid	String	The disk offering UUID.	4.8.0
rootImageUuid	String		4.8.0
installPath	String		4.8.0
type	String		4.8.0
format	String		4.8.0
size	Long		4.8.0
actualSize	Long		4.8.0
deviceId	Integer		4.8.0
state	String		4.8.0
status	String		4.8.0
createDate	Timestamp	The creation date.	4.8.0
lastOpDate	Timestamp	The last operation date.	4.8.0
isShareable	Boolean		4.8.0
volumeQos	String		4.8.0
lastDetachDate	Timestamp		4.8.0
lastVmInstanceUuid	String		4.8.0

SDK Sample

Java SDK

```
UndoSnapshotCreationAction action = new UndoSnapshotCreationAction();
action.uuid = "7fc32ad187c939d8aca65977560c2714";
action.snapshotUuid = "7677380457d136629f44c93c99978acc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UndoSnapshotCreationAction.Result res = action.call();
```

Python SDK

```
UndoSnapshotCreationAction action = UndoSnapshotCreationAction()
action.uuid = "7fc32ad187c939d8aca65977560c2714"
action.snapshotUuid = "7677380457d136629f44c93c99978acc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UndoSnapshotCreationAction.Result res = action.call()
```

5.1.9.8 UngroupVolumeSnapshotGroup

API Request

URLs

```
DELETE zstack/v1/volume-snapshots/ungroup/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/volume-snapshots/
ungroup/8903cef5a11c3457881bfd7bd5f04757
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The snapshot group UUID.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```



```
}
```

SDK Sample

Java SDK

```
UngroupVolumeSnapshotGroupAction action = new UngroupVolumeSnapsho
tGroupAction();
action.uuid = "8903cef5a11c3457881bfd7bd5f04757";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UngroupVolumeSnapshotGroupAction.Result res = action.call();
```

Python SDK

```
UngroupVolumeSnapshotGroupAction action = UngroupVolumeSnapsho
tGroupAction()
action.uuid = "8903cef5a11c3457881bfd7bd5f04757"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UngroupVolumeSnapshotGroupAction.Result res = action.call()
```

5.1.9.9 GetMemorySnapshotGroupReference

API Requests

URLs

```
GET zstack/v1/memory-snapshots/group/reference
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Samples

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/memory-snapshots/group/
reference?
resourceUuid=293e9dd057c831608cf59cd377ba0d03&resourceType=L3NetworkVO
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
resourceUuid	String	query	The resource UUID.		4.4.24
resourceType	String	query	The resource type.		4.4.24

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.4.24
userTags	List	query	Optional. The user tags.		4.4.24

API Response

```
{
  "inventories": [
    {
      "uuid": "22f6a9534922339f95c15db177ac2c75",
      "snapshotCount": 1.0,
      "name": "group",
      "vmInstanceId": "e5c0251850be3ffe85db33e7ecf12b75",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "volumeSnapshotRefs": [
        {
          "volumeSnapshotUuid": "bfb9af2450753ac292c46c3afcadd7a6",
          "volumeSnapshotGroupUuid": "22f6a9534922339f95c15db177ac2c75"
        }
      ],
      "deviceId": 0.0,
      "snapshotDeleted": false,
      "volumeUuid": "976ab88982753cc8951efd915b76573f",
      "volumeName": "ROOT-volume",
      "volumeType": "Root",
      "volumeSnapshotInstallPath": "/zstack_ps/to/path/snap.qcow2",
      "volumeSnapshotName": "group-ROOT-volume",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ],
  "resourceUuid": "c8a0949c175c380db27cc5c78e8d01f7"
}
```

Name	Type	Description	Starting Version
resourceUuid	String	The resource UUID.	4.4.24
success	boolean		4.4.24
inventories	List	See inventories	4.4.24
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.4.24

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.24
snapshotCount	Integer	The number of snapshots in the group.	4.4.24
name	String	The resource name.	4.4.24
description	String	The detailed description of the resource.	4.4.24
vmInstanceUuid	String	The VM UUID.	4.4.24
createDate	Timestamp	The creation date.	4.4.24
lastOpDate	Timestamp	The last operation date.	4.4.24
volumeSnapshotRefs	List	See volumeSnapshotRefs	4.4.24

#volumeSnapshotRefs

Name	Type	Description	Starting Version
volumeSnapshotUuid	String	The volume snapshot UUID.	4.4.24
volumeSnapshotGroupUuid	String	The snapshot group UUID.	4.4.24
deviceId	int	The device ID of the volume when the snapshot is taken.	4.4.24
snapshotDeleted	boolean	Whether the snapshot is deleted.	4.4.24
volumeUuid	String	The volume UUID.	4.4.24
volumeName	String	The volume name.	4.4.24
volumeType	String	The volume type.	4.4.24
volumeSnapshotInstallPath	String	The path to install the snapshot.	4.4.24
volumeSnapshotName	String	The snapshot name.	4.4.24
createDate	Timestamp	The creation date.	4.4.24

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.4.24

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.4.24
description	String	The brief description of the error.	4.4.24
details	String	The details about the error.	4.4.24
elaboration	String	The reserved field. Default value: null.	4.4.24
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.24
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.24

SDK Sample

Java SDK

```
GetMemorySnapshotGroupReferenceAction action = new GetMemorySnapshotGroupReferenceAction();
action.resourceUuid = "293e9dd057c831608cf59cd377ba0d03";
action.resourceType = "L3NetworkV0";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetMemorySnapshotGroupReferenceAction.Result res = action.call();
```

Python SDK

```
GetMemorySnapshotGroupReferenceAction action = GetMemorySnapshotGroupReferenceAction()
action.resourceUuid = "293e9dd057c831608cf59cd377ba0d03"
```

```
action.resourceType = "L3NetworkV0"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetMemorySnapshotGroupReferenceAction.Result res = action.call()
```

5.1.10 SSH Key Operations

5.1.10.1 GenerateSshKeyPair

API Request

URLs

```
POST zstack/v1/ssh-key-pair/generate
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "ssh-key-pair",
    "description": "description"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X POST -d '{"params":{"name":"ssh-key-pair","description":"description"}}'
http://localhost:8080/zstack/v1/ssh-key-pair/generate
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.7.21

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "25d8c1517825305f9dbcf5413197faf",
    "name": "ssh-key-pair",
    "publicKey": "ssh-public-key",
    "privateKey": "ssh-private-key"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
inventory	SshPrivateKeyPairInventory	See inventory .	4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	4.7.21

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
name	String	The resource name.	4.7.21
description	String	The detailed description of the resource.	4.7.21
publicKey	String		4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21
privateKey	String		4.7.21

SDK Sample

Java SDK

```
GenerateSshKeyPairAction action = new GenerateSshKeyPairAction();
action.name = "ssh-key-pair";
action.description = "description";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
GenerateSshKeyPairAction.Result res = action.call();
```

Python SDK

```
GenerateSshKeyPairAction action = GenerateSshKeyPairAction()
action.name = "ssh-key-pair"
action.description = "description"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GenerateSshKeyPairAction.Result res = action.call()
```

5.1.10.2 CreateSshKeyPair

API Request

URLs

```
POST zstack/v1/ssh-key-pair
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "ssh-key-pair",
    "description": "description",
    "publicKey": ""
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X POST -d '{"params":{"name":"ssh-key-pair","description":"description","publicKey":""}}'
http://localhost:8080/zstack/v1/ssh-key-pair
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.7.21
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.7.21
publicKey	String	body (contained in the params structure)			4.7.21
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.7.21
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "87460bc213b534ecaceda5a510a13771",
    "name": "ssh-key-pair",
    "publicKey": ""
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21

Name	Type	Description	Starting Version
inventory	SshKeyPairInventory	See inventory .	4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
name	String	The resource name.	4.7.21

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	4.7.21
publicKey	String		4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
CreateSshKeyPairAction action = new CreateSshKeyPairAction();
action.name = "ssh-key-pair";
action.description = "description";
action.publicKey = "";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSshKeyPairAction.Result res = action.call();
```

Python SDK

```
CreateSshKeyPairAction action = CreateSshKeyPairAction()
action.name = "ssh-key-pair"
action.description = "description"
action.publicKey = ""
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSshKeyPairAction.Result res = action.call()
```

5.1.10.3 DeleteSshKeyPair

API Request

URLs

```
DELETE zstack/v1/ssh-key-pair/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X DELETE http://localhost:8080/zstack/v1/ssh-key-pair/67560ca0fb1d35b7bd520d43e2cbacee?
```

```
http://localhost:8080/zstack/v1/ssh-key-pair/67560ca0fb1d35b7bd520d43e2cbacee?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteSshKeyPairAction action = new DeleteSshKeyPairAction();
action.uuid = "67560ca0fb1d35b7bd520d43e2cbacee";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteSshKeyPairAction.Result res = action.call();
```

Python SDK

```
DeleteSshKeyPairAction action = DeleteSshKeyPairAction()
action.uuid = "67560ca0fb1d35b7bd520d43e2cbacee"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteSshKeyPairAction.Result res = action.call()
```

5.1.10.4 QuerySshKeyPair

API Request

URLs

```
GET zstack/v1/ssh-key-pair
GET zstack/v1/ssh-key-pair/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/ssh-key-pair?
q=uuid=1d1c2b759ab23353946035b266bd2ac1
```

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/ssh-key-
pair/085e223844b03474a590f5877b53e0c8
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySshKeyPair**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "f289105c96f230e9a8add069c3a1bd69",
      "name": "ssh-key-pair",
      "publicKey": ""
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.7.21

Name	Type	Description	Starting Version
		more information, See error .	
inventories	List	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
name	String	The resource name.	4.7.21
description	String	The detailed description of the resource.	4.7.21
publicKey	String		4.7.21
createDate	Timestamp	The creation date.	4.7.21

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
QuerySshKeyPairAction action = new QuerySshKeyPairAction();
action.conditions = asList("uuid=a37de2994dcb3f21bc084b67f3608849");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySshKeyPairAction.Result res = action.call();
```

Python SDK

```
QuerySshKeyPairAction action = QuerySshKeyPairAction()
action.conditions = ["uuid=de52ff419e82330f8c0d7415ed53469a"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySshKeyPairAction.Result res = action.call()
```

5.1.10.5 UpdateSshKeyPair

API Request

URLs

```
PUT zstack/v1/ssh-key-pair/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSshKeyPair": {
    "name": "ssh-key-pair",
    "description": "description"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"updateSshKeyPair":{"name":"ssh-key-
pair","description":"description"}}'
http://localhost:8080/zstack/v1/ssh-key-pair/
ec2724093b1a3da8bf040dff4c9c1adb/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.21
name	String	body (contained in the updateSshKeyPair structure)	Optional. The resource name.		4.7.21
description	String	body (contained in the updateSshKeyPair structure)	Optional. The detailed description of the resource.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "15565277de143faea29e6fcc571c4d1d",
    "name": "ssh-key-pair",
    "publicKey": ""
  }
}
```


}

Name	Type	Description	Starting Version
success	boolean		4.7.21
inventory	SshKeyPairInventory	See inventory	4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21

Name	Type	Description	Starting Version
name	String	The resource name.	4.7.21
description	String	The detailed description of the resource.	4.7.21
publicKey	String		4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
UpdateSshKeyPairAction action = new UpdateSshKeyPairAction();
action.uuid = "ec2724093b1a3da8bf040dff4c9c1adb";
action.name = "ssh-key-pair";
action.description = "description";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSshKeyPairAction.Result res = action.call();
```

Python SDK

```
UpdateSshKeyPairAction action = UpdateSshKeyPairAction()
action.uuid = "ec2724093b1a3da8bf040dff4c9c1adb"
action.name = "ssh-key-pair"
action.description = "description"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSshKeyPairAction.Result res = action.call()
```

5.1.10.6 AttachSshKeyPairToVmInstance

API Request

URLs

```
POST zstack/ssh-key-pair/{sshKeyPairUuid}/vm-instance/{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X POST -d '{"params":{}}'
http://localhost:8080/zstack/v1/ssh-key-
pair/9d4fe97b6e0a3d65bca85b093e74d6c9/vm-instance/
e76f9792afac3bca8aec7a5d4e768197
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstance Uuid	String	url	The VM instance UUID		4.7.21
sshKeyPair Uuid	String	url			4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "03da892de78c34d8b13e210d068caa8a",
    "name": "ssh-key-pair",
    "publicKey": ""
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
inventory	SshKeyPairInventory	See inventory .	4.7.21

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

名字	类型	描述	起始版本
uuid	String	The resource UUID.	4.7.21
name	String	The resource name.	4.7.21
description	String	The detailed description of the resource.	4.7.21

名字	类型	描述	起始版本
publicKey	String		4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
AttachSshKeyPairToVmInstanceAction action = new AttachSshKeyPairToVmInstanceAction();
action.vmInstanceId = "e76f9792afac3bca8aec7a5d4e768197";
action.sshKeyPairUuid = "9d4fe97b6e0a3d65bca85b093e74d6c9";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachSshKeyPairToVmInstanceAction.Result res = action.call();
```

Python SDK

```
AttachSshKeyPairToVmInstanceAction action = AttachSshKeyPairToVmInstanceAction()
action.vmInstanceId = "e76f9792afac3bca8aec7a5d4e768197"
action.sshKeyPairUuid = "9d4fe97b6e0a3d65bca85b093e74d6c9"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachSshKeyPairToVmInstanceAction.Result res = action.call()
```

5.1.10.7 DetachSshKeyPairFromVmInstance

API Request

URLs

```
DELETE zstack/v1/ssh-key-pair/{sshKeyPairUuid}/vm-instance/{vmInstanceId}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X DELETE
http://localhost:8080/zstack/v1/ssh-key-
pair/9be9cb6b56b13746a99660a0d07a0770/vm-instance/
dd734d0cd5c53bcc48cec9d2b4aa6d6?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstance Uuid	String	url	The VM instance UUID		4.7.21
sshKeyPair Uuid	String	url			4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DetachSshKeyPairFromVmInstanceAction action = new DetachSshKeyPairFromVmInstanceAction();
action.vmInstanceUuid = "dd734d0cd5c53bcc48cec9d2b4aa6d6";
action.sshKeyPairUuid = "9be9cb6b56b13746a99660a0d07a0770";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
DetachSshKeyPairFromVmInstanceAction.Result res = action.call();
```

Python SDK

```
DetachSshKeyPairFromVmInstanceAction action = DetachSshKeyPairFromVmInstanceAction()
action.vmInstanceId = "dd734d0cd5c53bcca48cec9d2b4aa6d6"
action.sshKeyPairUuid = "9be9cb6b56b13746a99660a0d07a0770"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachSshKeyPairFromVmInstanceAction.Result res = action.call()
```

5.2 Hardware

5.2.1 Zone Operations

5.2.1.1 CreateZone

API Request

URLs

```
POST zstack/v1/zones
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "TestZone",
    "description": "test zone"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"TestZone","description":"test zone"}}' \
http://localhost:8080/zstack/v1/zones
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The specified resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0d26522305c34d07b5661ccda62053c0",
    "name": "TestZone",
    "description": "Test",
    "state": "Enabled",
    "type": "zstack",
    "createDate": "Jun 7, 2017 9:20:28 PM",
    "lastOpDate": "Jun 7, 2017 9:20:28 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ZoneInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The short description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
CreateZoneAction action = new CreateZoneAction();
action.name = "TestZone";
action.description = "test zone";
action.sessionId = "982a09118de64ef7a9051fde346270c5";
CreateZoneAction.Result res = action.call();
```

Python SDK

```
CreateZoneAction action = CreateZoneAction()
action.name = "TestZone"
action.description = "test zone"
action.sessionId = "79e260dca17b4bdf9b7d7b4e150883df"
CreateZoneAction.Result res = action.call()
```

5.2.1.2 DeleteZone

API Request

URLs

```
DELETE zstack/v1/zones/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 05fc0a34be264877a9dc8dfb5f90d619" \
-X DELETE http://localhost:8080/zstack/v1/zones/
d3483ca440334af3acc09d8631e814c6?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode. Options: Permissive Enforcing.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			Default mode: Permissive. • Permissive: If an error occurs, or if the delete operation is refused, ZStack Cloud will stop the delete operation. In this mode, an error code that contains the failure reason will be returned. • Enforcing: ZStack Cloud will ignore all errors and permissions to delete directly the resource. In this mode, the delete operation will always succeed.		
systemTags	List	body	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteZoneAction action = new DeleteZoneAction();
action.uuid = "8987020fccd14191a5a89dda6f3db81e";
action.deleteMode = "Permissive";
action.sessionId = "835b1b72c4554a7e92c425ad9eaebc6d";
DeleteZoneAction.Result res = action.call();
```

Python SDK

```
DeleteZoneAction action = DeleteZoneAction()
action.uuid = "a4bcb439c99a42e197cac90be83e706e"
action.deleteMode = "Permissive"
action.sessionId = "6eaf02e52c884e378a3730ce4267d83a"
DeleteZoneAction.Result res = action.call()
```

5.2.1.3 QueryZone

API Request

URLs

```
GET zstack/v1/zones
```

```
GET zstack/v1/zones/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e556a104ae874303897ac67d83564086" \
-X GET http://localhost:8080/zstack/v1/zones?
q=name=TestZone&q=state=Enabled
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 7e9fd15bba0d43a2b1a7212c85fb8787" \
-X GET http://localhost:8080/zstack/v1/
zones/9276d05c7d7545d6b61bfc50f017b86c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryZone`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "a58fb4240ed04129a0896b565f24a9df",
      "name": "TestZone",
      "description": "Test",
      "state": "Enabled",
      "type": "zstack",
      "createDate": "Jun 7, 2017 9:20:29 PM",
      "lastOpDate": "Jun 7, 2017 9:20:29 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The detailed description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryZoneAction action = new QueryZoneAction();
action.conditions = asList("name=TestZone","state=Enabled");
action.sessionId = "608079b963b54e8a9aa3a2291adae89f";
QueryZoneAction.Result res = action.call();
```

Python SDK

```
QueryZoneAction action = QueryZoneAction()
action.conditions = ["name=TestZone","state=Enabled"]
action.sessionId = "be89929b7fd34d25a5c1a7f47f4490cd"
QueryZoneAction.Result res = action.call()
```

5.2.1.4 UpdateZone

API Request

URLs

```
PUT zstack/v1/zones/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateZone": {
    "name": "TestZone2",
    "description": "test second zone"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateZone":{"name":"TestZone2","description":"test second zone"}}' \
```

```
http://localhost:8080/zstack/v1/
zones/3fc9a2d76b043ead90c537561edcb50e/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the updateZone structure)	Optional. The resource name.		0.6
description	String	body (contained in the updateZone structure)	Optional. The detailed description of the resource.		0.6
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "eb5d94d030e84fb286c4f281520b163b",
    "name": "TestZone",
    "description": "Test",
    "state": "Enabled",
    "type": "zstack",
    "createDate": "Jun 7, 2017 9:20:45 PM",
    "lastOpDate": "Jun 7, 2017 9:20:45 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	
inventory	ZoneInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
type	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateZoneAction action = new UpdateZoneAction();
action.name = "TestZone2";
action.description = "test second zone";
action.uuid = "e676dc07cbad45ccb96fd6033ed3c72f";
action.sessionId = "14b97d8a960b4c758389f6b6f5930210";
UpdateZoneAction.Result res = action.call();
```

Python SDK

```
UpdateZoneAction action = UpdateZoneAction()
action.name = "TestZone2"
action.description = "test second zone"
action.uuid = "20ab7e6d18134e84ac5322741be661ca"
action.sessionId = "8b46ebd366c54b808c63812ecef9fff0"
UpdateZoneAction.Result res = action.call()
```

5.2.1.5 ChangeZoneState

API Request

URLs

```
PUT zstack/v1/zones/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeZoneState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeZoneState":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/zones/
af28b8e014ba35619ab68739fe72c2a3/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
stateEvent	String	body (contained in the changeZone State structure)	The state event.	• enable • disable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5ea6fdd8a3a24fa2b17b1b89ad29da6b",
    "name": "TestZone",
    "description": "Test",
    "state": "Enabled",
    "type": "zstack",
    "createDate": "Jun 7, 2017 9:21:08 PM",
    "lastOpDate": "Jun 7, 2017 9:21:08 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ZoneInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
state	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
ChangeZoneStateAction action = new ChangeZoneStateAction();
action.uuid = "61defcb978894aec8839a099bd0eb1a2";
action.stateEvent = "enable";
action.sessionId = "166c291cd367487c9032f4f23531863c";
ChangeZoneStateAction.Result res = action.call();
```

Python SDK

```
ChangeZoneStateAction action = ChangeZoneStateAction()
action.uuid = "8feaadc6f847a7b7fe707d150b7fef"
action.stateEvent = "enable"
action.sessionId = "b6988f47cb2e4a13abe7b2116d3a2a78"
ChangeZoneStateAction.Result res = action.call()
```

5.2.2 Cluster Operations

5.2.2.1 CreateCluster

API Request

URLs

```
POST zstack/v1/clusters
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "zoneUuid": "d5629a75f0a24280ac669d93d38a7dcd",
    "name": "cluster1",
    "description": "test",
```

```
"hypervisorType": "KVM"
},
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"zoneUuid":"e1fb7d87073b397c857eaeab16243103", "name":"cluster1", "description":"t
\
http://localhost:8080/zstack/v1/clusters
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
hypervisor Type	String	body (contained in the params structure)	The hypervisor type.	- KVM - Simulator	4.0.0
type	String	body (contained in the params structure)	Optional. The reserved field for internal use.	zstack	0.6

Name	Type	Location	Description	Valid Value	Starting Version
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. - When not null, ZStack Cloud will use this field as the UUID of the created resource. - Otherwise, ZStack Cloud will automatically generate a UUID to the resource.		0.6
architecture	String	body (contained in the params structure)	Optional.	- x86_64 - aarch64 - mips64el	4.0.0
tagUuids	List	body (contained in the params structure)	Optional.		4.0.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "cluster1",
    "uuid": "dc7442bb39674d779d688369329ba845",
    "description": "test",
```

```

"state": "Enabled",
"hypervisorType": "KVM",
"createDate": "Jun 7, 2017 9:20:31 PM",
"lastOpDate": "Jun 7, 2017 9:20:31 PM",
"zoneUuid": "342b68c14869412984d6327a58b18f9b",
"type": "zstack"
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ClusterInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The cluster state.	0.6
hypervisorType	String	The hypervisor type.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
zoneUuid	String	The zone UUID.	0.6
type	String	The reserved field.	0.6

SDK Sample

Java SDK

```
CreateClusterAction action = new CreateClusterAction();
action.zoneUuid = "70fd596da027478eb22ac9357aed23f4";
action.name = "cluster1";
action.description = "test";
action.hypervisorType = "KVM";
action.sessionId = "894477861bcc45488978b584908e4ee3";
CreateClusterAction.Result res = action.call();
```

Python SDK

```
CreateClusterAction action = CreateClusterAction()
action.zoneUuid = "cfe698802c87486986878daa2da7e02f"
action.name = "cluster1"
action.description = "test"
action.hypervisorType = "KVM"
action.sessionId = "0664130c5d36414bbb3a7a59ef87ea5a"
```

```
CreateClusterAction.Result res = action.call()
```

5.2.2.2 DeleteCluster

API Request

URLs

```
DELETE zstack/v1/clusters/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth d55b1a48ad2348ceb3bea95b407a8bde" \
-X DELETE http://localhost:8080/zstack/v1/clusters/
a5bb7e5ca83f41748538d953709ba3c3?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteClusterAction action = new DeleteClusterAction();
action.uuid = "51b6e91ce692487ea582418f52835061";
action.deleteMode = "Permissive";
action.sessionId = "41695ae924854a3abfc1e681e092f744";
DeleteClusterAction.Result res = action.call();
```

Python SDK

```
DeleteClusterAction action = DeleteClusterAction()
action.uuid = "2e9d94bbe3d240d3a660e86a7cd6aff8"
action.deleteMode = "Permissive"
action.sessionId = "386fba061d404eeb830a772e31fd4faf"
DeleteClusterAction.Result res = action.call()
```

5.2.2.3 QueryCluster

API Request

URLs

```
GET zstack/v1/clusters
GET zstack/v1/clusters/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 815c808ecfb5461b953544d4bcefea31" \
-X GET http://localhost:8080/zstack/v1/clusters?q=hypervisorType=KVM
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 663eef55906d4b6e9750f9b4ed65f5f9" \
-X GET http://localhost:8080/zstack/v1/clusters/
a8d5ea1ceda34616a26bec2fce3b4d8a
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryCluster`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "cluster1",
      "uuid": "41f3a4eb130347a2af6d7f2e0d21fab0",
      "description": "test",
      "state": "Enabled",
      "hypervisorType": "KVM",
      "createDate": "Jun 7, 2017 9:20:13 PM",
      "lastOpDate": "Jun 7, 2017 9:20:13 PM",
      "zoneUuid": "aad01c8b25774796b2e341ec51a7c9c1",
      "type": "zstack"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The cluster state.	0.6
hypervisorType	String	The hypervisor type.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
zoneUuid	String	The zone UUID.	0.6
type	String	The reserved field.	0.6

SDK Sample

Java SDK

```
QueryClusterAction action = new QueryClusterAction();
action.conditions = asList("hypervisorType=KVM");
action.sessionId = "3e214b652cc947ea9e1aa256d05752ea";
QueryClusterAction.Result res = action.call();
```

Python SDK

```
QueryClusterAction action = QueryClusterAction()
action.conditions = ["hypervisorType=KVM"]
action.sessionId = "ad8f3cd4b5bc4da0a3a91dc8bcbdd18c"
```

```
QueryClusterAction.Result res = action.call()
```

5.2.2.4 UpdateCluster

API Request

URLs

```
PUT zstack/v1/clusters/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateCluster": {
    "name": "cluster1",
    "description": "test"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateCluster":{"name":"cluster1","description":"test"}}' \
http://localhost:8080/zstack/v1/
clusters/851a3783e1503de2a1b9222014c843c4/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the	Optional. The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		updateCluster structure)			
description	String	body (contained in the updateCluster structure)	Optional. The detailed description of the resource.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "cluster1",
    "uuid": "9dd0fbecb0e04260ad161c66d1da9f96",
    "description": "test",
    "state": "Enabled",
    "hypervisorType": "KVM",
    "createDate": "Jun 7, 2017 9:20:29 PM",
    "lastOpDate": "Jun 7, 2017 9:20:29 PM",
    "zoneUuid": "25b7ddce968f4cbbb58aa5a205e116ee",
    "type": "zstack"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ClusterInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The cluster state.	0.6
hypervisorType	String	The hypervisor type.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
zoneUuid	String	The zone UUID.	0.6
type	String	The reserved field.	0.6

SDK Sample

Java SDK

```
UpdateClusterAction action = new UpdateClusterAction();
action.uuid = "ce185b26a4f14153941a868435d94498";
action.name = "cluster1";
action.description = "test";
action.sessionId = "5abfadbc97d64b4687ba6281de117d2d";
UpdateClusterAction.Result res = action.call();
```

Python SDK

```
UpdateClusterAction action = UpdateClusterAction()
action.uuid = "a643ba1b98524c60acced530ce2ded1b"
action.name = "cluster1"
action.description = "test"
action.sessionId = "cc779e5d5344493d9bd1cb1ced887321"
UpdateClusterAction.Result res = action.call()
```

5.2.2.5 ChangeClusterState

API Request

URLs

```
PUT zstack/v1/clusters/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeClusterState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeClusterState":{"stateEvent":"disable"}}' \
```

```
http://localhost:8080/zstack/v1/
clusters/652ee5e996203bfb5eb75e750720093/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
stateEvent	String	body (contained in the changeClusterState structure)	The state event.	• enable • disable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "cluster1",
    "uuid": "2cebd4274c7c4550add1ee3620b52a81",
    "description": "test",
    "state": "Enabled",
    "hypervisorType": "KVM",
    "createDate": "Jun 7, 2017 9:20:25 PM",
    "lastOpDate": "Jun 7, 2017 9:20:25 PM",
    "zoneUuid": "90eb72b73e144650990db2aa1dde7c1",
    "type": "zstack"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ClusterInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
state	String	The cluster state.	0.6
hypervisorType	String	The hypervisor type.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
zoneUuid	String	The zone UUID.	0.6

Name	Type	Description	Starting Version
type	String	The reserved field.	0.6

SDK Sample

Java SDK

```
ChangeClusterStateAction action = new ChangeClusterStateAction();
action.uuid = "b97eb5ab5e264edbad128090b0ac28c2";
action.stateEvent = "disable";
action.sessionId = "79368b716c6a4d5db37fc7c601bf14cc";
ChangeClusterStateAction.Result res = action.call();
```

Python SDK

```
ChangeClusterStateAction action = ChangeClusterStateAction()
action.uuid = "24f520e8991d464eaf2ed9b1e55996a3"
action.stateEvent = "disable"
action.sessionId = "11db5049d24342e7af8b1a3992484184"
ChangeClusterStateAction.Result res = action.call()
```

5.2.2.6 UpdateClusterOS

API Request

URLs

```
PUT zstack/v1/clusters/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateClusterOS": {
    "excludePackages": [
      "kernel",
      "systemd*"
    ],
    "updatePackages": [
      "zstack-release"
    ],
    "releaseVersion": "c74",
    "force": false
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateClusterOS":{"excludePackages":
["kernel","systemd*"],"updatePackages":["zstack-
release"],"releaseVersion":"c74","force":false}}' http://
localhost:8080/zstack/v1/clusters/31c4951f39ae38969802e833448369ae/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
excludePackages	List	body (contained in the updateClusterOS structure)	Optional. The packages not to be upgraded.		3.7.0
updatePackages	List	body (contained in the updateClusterOS structure)	Optional. The packages to be upgraded.		3.7.0
releaseVersion	String	body (contained in the updateClusterOS structure)	Optional. The release version of the operating system.		3.7.0
resourceUuid	String	body (contained in the	Optional. The resource UUID.		3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
		updateClusterOS structure)			
tagUuids	List	body (contained in the updateClusterOS structure)	Optional. The tag UUID list.		3.7.0
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
force	boolean	body (contained in the updateClusterOS structure)	Optional. Whether update cluster OS forcefully or not.		5.2.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "932696598b64375ea4ae6226cc0c1407"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	LongJobInventory	See inventory .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The detailed description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2.4
name	String	The resource name.	2.2.4
description	String	The detailed description of the resource.	2.2.4
apild	String	The API ID used to associate with the task progress.	2.2.4
jobName	String	The job name.	2.2.4
jobData	String	The job data.	2.2.4
jobResult	String	The job result.	2.2.4
targetResourceUuid	String	The target resource UUID.	2.2.4

Name	Type	Description	Starting Version
management NodeUuid	String	The management node UUID.	2.2.4
createDate	Timestamp	The creation date.	2.2.4
lastOpDate	Timestamp	The last operation date.	2.2.4
executeTime	Long		3.7.0
state	LongJobState	See state .	2.2.4

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.24
ordinal	int		2.2.4

SDK Sample

Java SDK

```
UpdateClusterOSAction action = new UpdateClusterOSAction();
action.uuid = "31c4951f39ae38969802e833448369ae";
action.excludePackages = asList("kernel","systemd*");
action.updatePackages = asList("zstack-release");
action.releaseVersion = "c74";
action.force = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateClusterOSAction.Result res = action.call();
```

Python SDK

```
UpdateClusterOSAction action = UpdateClusterOSAction()
action.uuid = "31c4951f39ae38969802e833448369ae"
action.excludePackages = [kernel, systemd*]
action.updatePackages = [zstack-release]
action.releaseVersion = "c74"
action.force = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
UpdateClusterOSAction.Result res = action.call()
```

5.2.3 Host Operations

5.2.3.1 CreateBonding

API Request

URLs

```
POST zstack/v1/hosts/bondings
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "hostUuids": [
      "83e1a4a2ca0d3b0e836b032118196455"
    ],
    "type": "LinuxBonding",
    "mode": "802.3ad",
    "xmitHashPolicy": "layer2+3"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"hostUuids":
["83e1a4a2ca0d3b0e836b032118196455"],"type":"LinuxBonding","mode":"802.3ad","xmit
http://localhost:8080/zstack/v1/hosts/bondings
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostUuids	List	body (contained in	The host UUID list.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
bondingName	String	body (contained in the params structure)	The bond name.		4.7.0
slaveUuids	List	body (contained in the params structure)	Optional. The slave interface UUIDs list.		5.0.0
slaveNames	List	body (contained in the params structure)	Optional. The slave interface name list.		5.0.0
type	String	body (contained in the params structure)	The bond type .	- LinuxBonding - OvsBonding	4.7.0
mode	String	body (contained in the params structure)	The bond mode.	802.3ad - active-backup	4.7.0
xmitHashPolicy	String	body (contained in the params structure)	Optional. The hash policy.	- layer2 - layer2+3 - layer3+4	4.7.0
description	String	body (contained in the params structure)	Optional. The resource description.		4.7.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.7.0
tagUuids	List	body (contained in	Optional. The tag UUID list.		4.7.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response

Sample Response

```
{
  "inventory": [
    {
      "hostUuid": "ad58bd08605338648dce127f256f332e",
      "bondingName": "test",
      "mode": "802.3ad",
      "xmitHashPolicy": "layer2+3",
      "ipAddresses": [
        "192.168.1.1"
      ],
      "type": "LinuxBonding",
      "slaves": [
        {
          "uuid": "97e1e9fb0cd73af8bd3e84376e59fa26",
          "hostUuid": "ad58bd08605338648dce127f256f332e",
          "interfaceName": "eno1",
          "interfaceType": "bondingSlave",
          "speed": 1000,
          "slaveActive": true,
          "carrierActive": true,
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
inventory	List	See inventory .	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
hostUuid	String	The host UUID.	4.7.0
bondingName	String	The bond name.	4.7.0
bondingType	String	The bond application type. Options : noBridge and bridgeSlave.	4.7.0
speed	Long	The bond speed.	4.7.0
mode	String	The bond mode.	4.7.0
xmitHashPolicy	String	The hash policy.	4.7.0
miiStatus	String	The MII status.	4.7.0
mac	String	The MAC address.	4.7.0
ipAddresses	List	The IP address.	4.7.0
gateway	String	The gateway address.	4.7.0
callBackIp	String	The callback IP address.	4.7.0
miimon	Long	The MII monitoring interval.	4.7.0
type	String	The bond type.	4.7.0
allSlavesActive	Boolean		4.7.0
description	String	The resource description.	4.7.0
createDate	Timestamp	The creation time.	4.7.0
lastOpDate	Timestamp	The last operation time.	4.7.0
slaves	List	See slaves .	4.7.0

#slaves

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0

Name	Type	Description	Starting Version
hostUuid	String	The host UUID.	4.7.0
bondingUuid	String	The bond UUID.	4.7.0
interfaceModel	String	The interface model.	5.0.0
vendorId	String	The vendor Id.	5.0.0
deviceId	String	The device Id.	5.0.0
subvendorId	String	The subset vendor Id.	5.0.0
subdeviceId	String	The subset device Id.	5.0.0
interfaceName	String	The interface name.	4.7.0
interfaceType	String	The interface type. Options: nomaster, bridgeSlave, and bondSlave.	4.7.0
speed	Long	The interface speed.	4.7.0
slaveActive	Boolean	The bond link status.	4.7.0
carrierActive	Boolean	The physical link status.	4.7.0
ipAddresses	List	The IP address.	4.7.0
gateway	String	The gateway address.	4.7.0
mac	String	The MAC address.	4.7.0
callBackIp	String	The callback IP address.	4.7.0
pciDeviceAddress	String	The PCI address of the interface.	4.7.0
offloadStatus	String		4.7.0
description	String	The resource description.	4.7.0
createDate	Timestamp	The creation time.	4.7.0
lastOpDate	Timestamp	The last operation time.	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
CreateBondingAction action = new CreateBondingAction();
action.hostUuids = asList("83e1a4a2ca0d3b0e836b032118196455");
action.type = "LinuxBonding";
action.mode = "802.3ad";
action.xmitHashPolicy = "layer2+3";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateBondingAction.Result res = action.call();
```

Python SDK

```
CreateBondingAction action = CreateBondingAction()
action.hostUuids = ["83e1a4a2ca0d3b0e836b032118196455"]
action.type = "LinuxBonding"
action.mode = "802.3ad"
action.xmitHashPolicy = "layer2+3"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateBondingAction.Result res = action.call()
```

5.2.3.2 DeleteBonding

API Request

URLs

```
DELETE zstack/v1/hosts/bondings/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/hosts/
bondings/6176f82c38f336d0a9ade9a84e1931a1
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0
deleteMode	String	body	Optional. The deleting mode (Permissive /Enforcing, Permissive).		4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
}
```

SDK Sample

Java SDK

```
DeleteBondingAction action = new DeleteBondingAction();
action.uuid = "6176f82c38f336d0a9ade9a84e1931a1";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteBondingAction.Result res = action.call();
```

Python SDK

```
DeleteBondingAction action = DeleteBondingAction()
action.uuid = "6176f82c38f336d0a9ade9a84e1931a1"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteBondingAction.Result res = action.call()
```

5.2.3.3 QueryHost

API Request

URLs

```
GET zstack/v1/hosts
GET zstack/v1/hosts/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 99a86d711f154752b52a7de2b3c43a63" \
-X GET http://localhost:8080/zstack/v1/hosts?
q=uuid=66547f0fc9fd45d98f6b8482488f2993
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth bd46777b8a8c4616a64f0cdbcf1bf98e" \
-X GET http://localhost:8080/zstack/v1/hosts/
bb582f21cfad4f61a2ab1ec062131b4a
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryHost`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "zoneUuid": "37649b12f572303a883c19c4c7af0856",
      "name": "example",
      "uuid": "f7bae73b9874344b8766dfcdda48ad6e",
      "clusterUuid": "d59c027b81fe3bbc9d78ef45f574febb",
      "description": "example",
      "managementIp": "192.168.0.1",
      "hypervisorType": "KVM",
      "state": "Enabled",
      "status": "Connected",
      "totalCpuCapacity": 4.0,
      "availableCpuCapacity": 2.0,
      "cpuSockets": 4.0,
      "totalMemoryCapacity": 1840414720,
      "availableMemoryCapacity": 1840414720,
      "cpuNum": 4.0
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
description	String	The detailed description of the resource.	0.6
managementIp	String		0.6
hypervisorType	String		0.6
state	String	The host state, including: • Enabled • Disabled • PreMaintenance • Maintenance	0.6
status	String	The host status, including: • Connecting • Connected • Disconnected	0.6
totalCpuCapacity	Long		0.6

Name	Type	Description	Starting Version
availableCpuCapacity	Long		0.6
cpuSockets	Integer		0.6
totalMemoryCapacity	Long		0.6
availableMemoryCapacity	Long		0.6
cpuNum	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

**Note:**

The state of a host can be changed as follows:

- A host in the Enabled state can be changed to the Disabled or PreMaintenance state.
- A host in the Disabled state can be changed to the Enabled or PreMaintenance state.
- A host in the PreMaintenance state can be changed to the Disabled, Enabled, or Maintenance state.
- A host in the Maintenance state can be changed to the Disabled or Enabled state.

SDK Sample

Java SDK

```
QueryHostAction action = new QueryHostAction();
action.conditions = asList("uuid=fb0510cd5bf04565be44c43da20169c7");
action.sessionId = "d69767ca64854cfb99960282fcdb8aed";
QueryHostAction.Result res = action.call();
```

Python SDK

```
QueryHostAction action = QueryHostAction()
action.conditions = ["uuid=2ddc05f8f46b4d5ab40053fdb72ae69d"]
action.sessionId = "96b183220af446c39d7cf2674761d85e"
```

```
QueryHostAction.Result res = action.call()
```

5.2.3.4 QueryHostOsCategory

API Request

URLs

```
GET zstack/v1/hosts/os/category
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hosts/os/category?
q=architecture=x86_64&q=osReleaseVersion="helix core 7.6"
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryHost**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "architecture": "x86_64",
      "osReleaseVersion": "helix Core 7.6",
      "metadataList": [
        {
          "managementNodeUuid": "fe5459189a8733ef9b6b8141b84f7071",
          "hypervisor": "qemu-kvm",
          "version": "4.2.0-632.g6a6222b.el7",
          "createDate": "Nov 14, 2017 2:20:57 PM",
          "lastOpDate": "Nov 14, 2017 2:20:57 PM"
        }
      ],
      "createDate": "Nov 14, 2017 2:20:57 PM",
      "lastOpDate": "Nov 14, 2017 2:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean	Whether the query is successful or not.	4.6.21

Name	Type	Description	Starting Version
inventories	List	See inventories .	4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.21

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.21
architecture	String	The host architecture, such as x86_64 .	4.6.21
osReleaseVersion	String	The host operation system version.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21
metadataList	List	See metadataList	4.6.21

#metadataList

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.21
categoryUuid	String	The UUID of the supported host category.	4.6.21
managementNodeUuid	String	The management node UUID.	4.6.21
hypervisor	String	The hypervisor name, such as qemu-kvm .	4.6.21
version	String	The version number, such as 4.2.0-632.g6a6222b.el7 .	4.6.21
createDate	Timestamp	The creation date.	4.6.21

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.6.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.6.21
description	String	The brief description of the error.	4.6.21
details	String	The details about the error.	4.6.21
elaboration	String	The reserved field. Default value: null.	4.6.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.21

SDK Sample

Java SDK

```
QueryHostOsCategoryAction action = new QueryHostOsCategoryAction();
action.conditions = asList("architecture=x86_64","osReleaseVersion=
\"helix Core 7.6.1810\");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryHostOsCategoryAction.Result res = action.call();
```

Python SDK

```
QueryHostOsCategoryAction action = QueryHostOsCategoryAction()
action.conditions = ["architecture=x86_64","osReleaseVersion=\"helix
Core 7.6.1810\""]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryHostOsCategoryAction.Result res = action.call()
```

5.2.3.5 QueryKvmHypervisorInfo

API Request

URLs

```
GET zstack/v1/hosts/kvm/hypervisor/info
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hosts/kvm/hypervisor/info?
q=uuid=dd025c0199ef3b7080120db73772234f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryHost**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "a3097e5ebe8a35929e1f2fe4304893f1",
      "hypervisor": "qemu-kvm",
      "version": "4.2.0-632.g6a6222b.el7",
      "matchState": "Matched",
      "createDate": "Nov 14, 2017 2:20:57 PM",
      "lastOpDate": "Nov 14, 2017 2:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean	Whether the query is successful or not.	4.6.21
inventories	List	See inventories .	4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.6.21

Name	Type	Description	Starting Version
		more information, see error .	

#inventories

Name	Type	Description	Satring Version
uuid	String	The UUID of the host or the VM instance.	4.6.21
hypervisor	String	The hypervisor name, such as qemu-kvm .	4.6.21
version	String	The version number, such as 4.2.0-632.g6a6222b.el7	4.6.21
matchState	String	Whether the current version is consistent with the recommended version. The values may be Matched , Unmatched , or Unknown	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.21
description	String	The brief description of the error.	4.6.21
details	String	The details about the error.	4.6.21

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	4.6.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.21

SDK Sample

Java SDK

```
QueryKvmHypervisorInfoAction action = new QueryKvmHypervisorInfoAction();
action.conditions = asList("uuid=0601103239cd30c2bd738b98d4440199");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryKvmHypervisorInfoAction.Result res = action.call();
```

Python SDK

```
QueryKvmHypervisorInfoAction action = QueryKvmHypervisorInfoAction()
action.conditions = ["uuid=838e20e529cc3a19a9f0efa50e9e2409"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryKvmHypervisorInfoAction.Result res = action.call()
```

5.2.3.6 DeleteHost

API Request

URLs

```
DELETE zstack/v1/hosts/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 999c480f7f344c3b803c3d74b82b7145" \
```

```
-X DELETE http://localhost:8080/zstack/v1/hosts/
bb2e5125ac2c4b3680463d7aeaf57773?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteHostAction action = new DeleteHostAction();
action.uuid = "2d4b91d9831d4630bf113ea75f78cb7a";
action.deleteMode = "Permissive";
action.sessionId = "923c9089a5fd4ea5b9fbfc1dec5802e2";
DeleteHostAction.Result res = action.call();
```

Python SDK

```
DeleteHostAction action = DeleteHostAction()
action.uuid = "f62a37111c154ec9afeaeb2700ebcfe6"
```

```
action.deleteMode = "Permissive"
action.sessionId = "2aa7f575d8654712ba985f4a36594f0a"
DeleteHostAction.Result res = action.call()
```

5.2.3.7 UpdateHost

API Request

URLs

```
PUT zstack/v1/hosts/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateHost": {
    "name": "example",
    "description": "example",
    "managementIp": "192.168.0.1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateHost":
{"name":"example","description":"example","managementIp":"192.168.0.1"}}' \
http://localhost:8080/zstack/v1/hosts/
fe98e821991a3c96af96fc7e458d2020/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the updateHost structure)	Optional. The resource name.		0.6
description	String	body (contained in the updateHost structure)	Optional. The detailed description of the resource.		0.6
management Ip	String	body (contained in the updateHost structure)	Optional. The IP address of the management node.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "zoneUuid": "2adef89f417e40dbab643656bbdc6eab",
    "name": "example",
    "uuid": "aaeb1d3c1f5a43fd941bfebab10b9f34",
    "clusterUuid": "c12dec3c77e34c40a86c4ceea02b860b",
    "description": "example",
    "managementIp": "192.168.0.1",
    "hypervisorType": "KVM",
    "state": "Enabled",
    "status": "Connected",
    "totalCpuCapacity": 4.0,
    "availableCpuCapacity": 2.0,
    "totalMemoryCapacity": 4.0,
    "availableMemoryCapacity": 4.0
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	HostInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
description	String	The detailed description of the resource.	0.6
managementIp	String		0.6
hypervisorType	String		0.6
state	String		0.6
status	String		0.6
totalCpuCapacity	Long		0.6
availableCpuCapacity	Long		0.6
cpuSockets	Integer		0.6
totalMemoryCapacity	Long		0.6
availableMemoryCapacity	Long		0.6
cpuNum	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateHostAction action = new UpdateHostAction();
action.uuid = "17aa30b0eb5849fca56804ddd5050c84";
action.name = "example";
action.description = "example";
action.managementIp = "192.168.0.1";
action.sessionId = "f303f20ae5b740468f56e8007acba81c";
UpdateHostAction.Result res = action.call();
```

Python SDK

```
UpdateHostAction action = UpdateHostAction()
action.uuid = "3925f7e788b54e86831644a6f85ea7c7"
action.name = "example"
action.description = "example"
action.managementIp = "192.168.0.1"
action.sessionId = "83a1c2866a8a42f98c66ed7196a58d75"
```

```
UpdateHostAction.Result res = action.call()
```

5.2.3.8 ChangeHostState

API Request

URLs

```
PUT zstack/v1/hosts/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeHostState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeHostState":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/
hosts/70e37940fe263e858a151850a312143f/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
stateEvent	String	body (contained in the changeHost	The target state of the host.	- enable - disable - maintain	0.6

Name	Type	Location	Description	Optional Value	Starting Version
		State structure)			
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "zoneUuid": "faf35db46f044232a96b1c9ac228f7a1",
    "name": "example",
    "uuid": "cf2e376062fe4a06bd5ab4d76cd88f5d",
    "clusterUuid": "7f314660761a4899b5967b6f4aad88f3",
    "description": "example",
    "managementIp": "192.168.0.1",
    "hypervisorType": "KVM",
    "state": "Enabled",
    "status": "Connected",
    "totalCpuCapacity": 4.0,
    "availableCpuCapacity": 2.0,
    "totalMemoryCapacity": 4.0,
    "availableMemoryCapacity": 4.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	HostInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
description	String	The detailed description of the resource.	0.6
managementIp	String		0.6
hypervisorType	String		0.6
state	String		0.6
status	String		0.6
totalCpuCapacity	Long		0.6
availableCpuCapacity	Long		0.6
cpuSockets	Integer		0.6
totalMemoryCapacity	Long		0.6

Name	Type	Description	Starting Version
availableMemoryCapacity	Long		0.6
cpuNum	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
ChangeHostStateAction action = new ChangeHostStateAction();
action.uuid = "c5089a867d1c4d52a272b115da9fb51b";
action.stateEvent = "enable";
action.sessionId = "3523eb84bca24927b6c3a3177253ae55";
ChangeHostStateAction.Result res = action.call();
```

Python SDK

```
ChangeHostStateAction action = ChangeHostStateAction()
action.uuid = "16ae0707e32a4fc58153084e8649e8ab"
action.stateEvent = "enable"
action.sessionId = "dd5b5dd2df854908a044b74151f135e1"
ChangeHostStateAction.Result res = action.call()
```

5.2.3.9 ReconnectHost

API Request

URLs

```
PUT zstack/v1/hosts/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectHost": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectHost":{}}' \
http://localhost:8080/zstack/v1/
hosts/26caa95d6fb53d08ad6716ef03bf4b28/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ReconnectHostAction action = new ReconnectHostAction();
action.uuid = "1c44c6b269724a62b7fb69bd25e5a8a9";
action.sessionId = "ccc6f95bad044da59080a87e710587c0";
ReconnectHostAction.Result res = action.call();
```

Python SDK

```
ReconnectHostAction action = ReconnectHostAction()
action.uuid = "562400a5ff1e4532aacedf708d3ad75e"
action.sessionId = "eb137b7f6e45448691b652fe4245a52b"
```

```
ReconnectHostAction.Result res = action.call()
```

5.2.3.10 GetHostAllocatorStrategies

API Request

URLs

```
GET zstack/v1/hosts/allocators/strategies
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth f8e76d7a6ec0461cab685e6bd9d724d2" \  
-X GET http://localhost:8080/zstack/v1/hosts/allocators/strategies
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{  
  "hostAllocatorStrategies": [  
    "b39183b36b8e4cb386bd7bb45c7c1997",  
    "e01d613c77a44b65b6bef75b4ef2accb"  
  ]  
}
```

Name	Type	Description	Starting Version
strategies	List	The strategies.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetHostAllocatorStrategiesAction action = new GetHostAllocatorStrategiesAction();
action.sessionId = "c10fb9fbab4744ecae6686b4193423e8";
GetHostAllocatorStrategiesAction.Result res = action.call();
```

Python SDK

```
GetHostAllocatorStrategiesAction action = GetHostAllocatorStrategiesAction()
action.sessionId = "caa6b3db2d5b42f79b44566b10763973"
```

```
GetHostAllocatorStrategiesAction.Result res = action.call()
```

5.2.3.11 GetHypervisorTypes

API Request

URLs

```
GET zstack/v1/hosts/hypervisor-types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth fa53caa553b8446e9bb1c3ccae31cfd" \
-X GET http://localhost:8080/zstack/v1/hosts/hypervisor-types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
GetHypervisorTypesAction action = new GetHypervisorTypesAction();
action.sessionId = "6e32c684aeab461db30fb6631a1ac898";
```

```
GetHypervisorTypesAction.Result res = action.call();
```

Python SDK

```
GetHypervisorTypesAction action = GetHypervisorTypesAction()
action.sessionId = "48f0a488d41d4f84b77c343a24e206e4"
GetHypervisorTypesAction.Result res = action.call()
```

5.2.3.12 GetCandidateNetworkInterfaces

API Request

URLs

```
GET zstack/v1/cluster/hosts-network-interfaces
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cluster/hosts-network-
interfaces?
hostUuids=5712f3960ae23d24988f4e091bf5704f&slaveOnly=true&limit=1000&start=0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostUuids	List	query	The host UUIDs.		4.7.0
limit	Integer	query	Optional.		4.7.0
start	Integer	query	Optional.		4.7.0
systemTags	List	query	Optional. The system tags.		4.7.0
userTags	List	query	Optional. The user tags.		4.7.0
slaveOnly (Optional)	boolean	query	Whether to obtain the information of slave network		4.7.11

Name	Type	Location	Description	Optional Value	Starting Version
			interfaces only		

API Response

Sample Response

```
{
  "slaveNames": [
    "eth0",
    "eth1"
  ]
}
```

Name	Type	Description	Starting Version
slaveUuids	List	The slave interface UUIDs.	4.7.0
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#error

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.7.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0

SDK Sample

Java SDK

```
GetCandidateNetworkInterfacesAction action = new GetCandidateNetworkI
nterfacesAction();
action.hostUuids = asList("5712f3960ae23d24988f4e091bf5704f");
action.slaveOnly = true;
action.limit = 1000;
action.start = 0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateNetworkInterfacesAction.Result res = action.call();
```

Python SDK

```
GetCandidateNetworkInterfacesAction action = GetCandidateNetworkI
nterfacesAction()
action.hostUuids = [5712f3960ae23d24988f4e091bf5704f]
action.slaveOnly = true
action.limit = 1000
action.start = 0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetCandidateNetworkInterfacesAction.Result res = action.call()
```

5.2.3.13 GetHostMultipathTopology

API Request

URLs

```
GET zstack/v1/storage-devices/multipath/topology
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/storage-devices/multipath/topology?hostUuid=da8052bf25c43b73ad0c9a7546d166ae&diskUuids=360014058e50754920324473a4c85c767
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostUuid	String	query	The host UUIDs.		5.3.0
diskUuids	List	query	The disk UUIDs.		5.3.0
systemTags	List	query	Optional. The system tags.		5.3.0
userTags	List	query	Optional. The user tags.		5.3.0

API Response

Sample Response

```
{
  "results": [
    {
      "diskUuid": "360014058e50754920324473a4c85c767",
      "devices": [
        {
          "disk": "sda",
          "status": "active",
          "state": "running",
          "target": "iqn.2003-01.org.linux-iscsi.172-20-14-68.x8664:sn.23019b11e653",
          "targetType": "iSCSI"
        },
        {
          "disk": "sdb",
          "status": "enabled",
          "state": "running",
          "target": "iqn.2003-01.org.linux-iscsi.172-20-14-68.x8664:sn.23019b11e653",
          "targetType": "iSCSI"
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.0

Name	Type	Description	Starting Version
results	List	For more information, see results	5.3.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.0

#results

Name	Type	Description	Starting Version
diskUuid	String	The disk UUIDs.	5.3.0
devices	List	For more information, see devices	5.3.0

#devices

Name	Type	Description	Starting Version
disk	String	The disk name.	5.3.0
state	String	The disk health status.	5.3.0
status	String	The disk enabled status.	5.3.0
target	String	The disk location.	5.3.0
targetType	String	The disk target type.	5.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.0
description	String	The brief description of the error.	5.3.0

Name	Type	Description	Starting Version
details	String	The details about the error.	5.3.0
elaboration	String	The reserved field. Default value: null.	5.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.0

SDK Sample

Java SDK

```
GetHostMultipathTopologyAction action = new GetHostMultipathTopologyAction();
action.hostUuid = "da8052bf25c43b73ad0c9a7546d166ae";
action.diskUuids = asList("360014058e50754920324473a4c85c767", "36001405a5d87d462c2c47acb683c4c37");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetHostMultipathTopologyAction.Result res = action.call();
```

Python SDK

```
GetHostMultipathTopologyAction action = GetHostMultipathTopologyAction()
action.hostUuid = "da8052bf25c43b73ad0c9a7546d166ae"
action.diskUuids = [360014058e50754920324473a4c85c767, 36001405a5d87d462c2c47acb683c4c37]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetHostMultipathTopologyAction.Result res = action.call()
```

5.2.3.14 GetCandidateInterfaceVlanIds

API Request

URLs

```
GET zstack/v1/host/network-interface-vlan-ids
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl示例

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/host/network-interface-vlan-ids?interfaceUuids=d25e83af6ccf3d9ca8baa1702861a0c8&limit=1000&start=0
```

参数列表

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuids	List	query	The NIC port UUIDs		4.7.11
limit	Integer	query			4.7.11
start	Integer	query			4.7.11
systemTags	List	query	Optional. The system tags.		4.7.11
userTags	List	query	Optional. The user tags.		4.7.11

API Response

Sample Response

```
{
  "vlanIds": [
    1010,
    1011,
    10,
    11,
    2000,
    1101,
    1110,
    1108,
```

```

        1107,
        1109,
        1106,
        1103,
        1102,
        1105,
        1104,
        0
    ],
    "success": true
}

```

Name	Type	Description	Starting Version
vlanIds	List	The Vlan interface ID list.	4.7.11
success	boolean		4.7.11
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.7.11

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.11
description	String	The brief description of the error.	4.7.11
details	String	The details about the error.	4.7.11
elaboration	String	The reserved field. Default value: null.	4.7.11
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.11
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.7.11

Name	Type	Description	Starting Version
		exists, this parameter is null.	

SDK Sample

Java SDK

```
GetCandidateInterfaceVlanIdsAction action = new GetCandidateInterfaceVlanIdsAction();
action.interfaceUuids = asList("d25e83af6ccf3d9ca8baa1702861a0c8");
action.limit = 1000;
action.start = 0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateInterfaceVlanIdsAction.Result res = action.call();
```

Python SDK

```
GetCandidateInterfaceVlanIdsAction action = GetCandidateInterfaceVlanIdsAction()
action.interfaceUuids = [d25e83af6ccf3d9ca8baa1702861a0c8]
action.limit = 1000
action.start = 0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetCandidateInterfaceVlanIdsAction.Result res = action.call()
```

5.2.3.15 SetIpOnHostNetworkBonding

API Request

URLs

```
POST zstack/v1/hosts/bondings/{bondingUuid}/ip
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "ipAddress": "1.1.1.1",
    "netmask": "255.255.0.0"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"ipAddress":"1.1.1.1","netmask":"255.255.0.0"}}'
http://localhost:8080/zstack/v1/hosts/bondings/
d4671664bb2a38479eddedbe4633121b/ip
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
bondingUuid	String	url	The bond UUID.		4.7.0
ipAddress	String	body (contained in the params structure)	Optional. The IP address.		4.7.0
netmask	String	body (contained in the params structure)	Optional. The netmask.		4.7.0
isDefaultRoute	Boolean	body (contained in the params structure)	Optional. Whether to set a default route.		4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response

Sample Response

```
{
  "inventory": {
    "hostUuid": "00949fb236003bbf85cfd151becdc8cf",
    "ipAddresses": [
      "192.168.1.1"
    ]
  }
}
```



```
}
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
inventory	HostNetworkBondingInventory	See inventory .	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
hostUuid	String	The host UUID.	4.7.0
bondingName	String	The bond name.	4.7.0
bondingType	String	The bond application type. Options : noBridge and bridgeSlave.	4.7.0
speed	Long	The bond speed.	4.7.0
mode	String	The bond mode.	4.7.0
xmitHashPolicy	String	The hash policy.	4.7.0
miiStatus	String	The MII status.	4.7.0
mac	String	The MAC address.	4.7.0
ipAddresses	List	The IP address.	4.7.0
gateway	String	The gateway address.	4.7.0
callBackIp	String	The callback IP address.	4.7.0
miimon	Long	The MII monitoring interval.	4.7.0
type	String	The bond type.	4.7.0
allSlavesActive	Boolean		4.7.0

Name	Type	Description	Starting Version
description	String	The resource description.	4.7.0
createDate	Timestamp	The creation time.	4.7.0
lastOpDate	Timestamp	The last operation time.	4.7.0
slaves	List	See slaves .	4.7.0

#slaves

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
hostUuid	String	The host UUID.	4.7.0
bondingUuid	String	The bond UUID.	4.7.0
interfaceName	String	The NIC name.	4.7.0
interfaceType	String	The NIC type. Values: nomaster, bridgeSlave, and bondSlave.	4.7.0
speed	Long	The NIC speed.	4.7.0
slaveActive	Boolean	The bond link status.	4.7.0
carrierActive	Boolean	The physical link status.	4.7.0
ipAddresses	List	The IP address.	4.7.0
gateway	String	The gateway address.	4.7.0
mac	String	The MAC address.	4.7.0
callBackIp	String	The callback IP address.	4.7.0
pciDeviceAddress	String	The PCI address of the interface.	4.7.0
offloadStatus	String		4.7.0
description	String	The resource description.	4.7.0
createDate	Timestamp	The creation time.	4.7.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation time .	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```

SetIpOnHostNetworkBondingAction action = new SetIpOnHostNetworkBo
ndingAction();
action.bondingUuid = "d4671664bb2a38479eddedbe4633121b";
action.ipAddress = "1.1.1.1";
action.netmask = "255.255.0.0";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetIpOnHostNetworkBondingAction.Result res = action.call();

```

Python SDK

```

SetIpOnHostNetworkBondingAction action = SetIpOnHostNetworkBo
ndingAction()

```

```

action.bondingUuid = "d4671664bb2a38479eddedbe4633121b"
action.ipAddress = "1.1.1.1"
action.netmask = "255.255.0.0"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetIpOnHostNetworkBondingAction.Result res = action.call()

```

5.2.3.16 SetIpOnHostNetworkInterface

API Request

URLs

```
POST zstack/v1/hosts/nics/{interfaceUuid}/ip
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "ipAddress": "1.1.1.1",
    "netmask": "255.255.0.0"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params": {"ipAddress": "1.1.1.1", "netmask": "255.255.0.0"}}' http://localhost:8080/zstack/v1/hosts/nics/d50ade48aec73edc87b0f7c2d6a84bcc/ip

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuid	String	url	The physical NIC port UUID		4.7.0

Name	Type	Location	Description	Optional Value	Starting Version
Optional. The user tags.	String	body (contained in the params structure)	Optional. The IP address.		4.7.0
Optional. The user tags.	String	body (contained in the params structure)	Optional. The netmask.		4.7.0
Optional. The user tags.	Boolean	body (contained in the params structure)	Optional. Whether to set a default route.		4.7.0
Optional. The user tags.	List	body	Optional. The system tags.		4.7.0
Optional. The user tags.	List	body	Optional. The user tags.		4.7.0

API Response

Sample Response

```
{
  "inventory": {
    "hostUuid": "d7fd94874d4235439abe33e041dd0928",
    "ipAddresses": [
      "192.168.1.1"
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
inventory	HostNetworkInterface Inventory	See inventory .	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
hostUuid	String	The host UUID.	4.7.0
bondingUuid	String	The bond UUID.	4.7.0
interfaceName	String	The NIC name.	4.7.0
interfaceType	String	The NIC type. Options : nomaster, bridgeSlave, and bondSlave.	4.7.0
speed	Long	The NIC speed.	4.7.0
slaveActive	Boolean	The bond link status.	4.7.0
carrierActive	Boolean	The physical link status.	4.7.0
ipAddresses	List	The IP address.	4.7.0
gateway	String	The gateway address.	4.7.0
mac	String	The MAC address.	4.7.0
callBackIp	String	The callback IP address.	4.7.0
pciDeviceAddress	String	The PCI address of the interface.	4.7.0
offloadStatus	String		4.7.0
description	String	The resource description.	4.7.0
createDate	Timestamp	The creation time.	4.7.0
lastOpDate	Timestamp	The last operation time.	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	4.7.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
SetIpOnHostNetworkInterfaceAction action = new SetIpOnHostNetworkIn
terfaceAction();
action.interfaceUuid = "d50ade48aec73edc87b0f7c2d6a84bcc";
action.ipAddress = "1.1.1.1";
action.netmask = "255.255.0.0";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetIpOnHostNetworkInterfaceAction.Result res = action.call();
```

Python SDK

```
SetIpOnHostNetworkInterfaceAction action = SetIpOnHostNetworkIn
terfaceAction()
action.interfaceUuid = "d50ade48aec73edc87b0f7c2d6a84bcc"
action.ipAddress = "1.1.1.1"
action.netmask = "255.255.0.0"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetIpOnHostNetworkInterfaceAction.Result res = action.call()
```

5.2.3.17 UpdateBonding

API Request

URLs

```
PUT zstack/v1/hosts/bondings/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBonding": {
    "mode": "802.3ad",
    "xmitHashPolicy": "layer2+3"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBonding":
{"mode":"802.3ad","xmitHashPolicy":"layer2+3"}}'
http://localhost:8080/zstack/v1/hosts/
bondings/1facb0c5125037a5bc4167cd2ad30d1f/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0
slaveUuids	List	body (contained in the	Optional. The slave NIC UUIDs list.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		updateBonding structure)			
slaveNames	List	body (contained in the updateBonding structure)	Optional. The slave name list.		5.0.0
type	String	body (contained in the updateBonding structure)	Optional. The bond type.	- LinuxBonding - OvsBonding	4.7.0
mode	String	body (contained in the updateBonding structure)	Optional. The bond mode.	802.3ad - active-backup	4.7.0
xmitHashPolicy	String	body (contained in the updateBonding structure)	Optional. The hash policy.	- layer2 - layer2+3 - layer3+4	4.7.0
description	String	body (contained in the updateBonding structure)	Optional. The resource description.		4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
```

```

    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```

UpdateBondingAction action = new UpdateBondingAction();
action.uuid = "1facb0c5125037a5bc4167cd2ad30d1f";
action.mode = "802.3ad";
action.xmitHashPolicy = "layer2+3";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateBondingAction.Result res = action.call();

```

Python SDK

```

UpdateBondingAction action = UpdateBondingAction()
action.uuid = "1facb0c5125037a5bc4167cd2ad30d1f"
action.mode = "802.3ad"
action.xmitHashPolicy = "layer2+3"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateBondingAction.Result res = action.call()

```

5.2.3.18 AttachNicToBonding

API Request

URLs

```
PUT zstack/v1/hosts/bondings/{uuid}/attach
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "attachNicToBonding": {
    "slaveUuids": [
      "9cc96c09880135db95e1b7d677607d6e"
    ],
    "type": "LinuxBonding"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"attachNicToBonding":{"slaveUuids":
["9cc96c09880135db95e1b7d677607d6e"],"type":"LinuxBonding"}}' \
http://localhost:8080/zstack/v1/hosts/
bondings/1facb0c5125037a5bc4167cd2ad30d1f/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.0.0
slaveUuids	List	body (contained in the attachNicToBonding structure)	The slave NIC UUIDs.		5.0.0
type	String	body (contained in the attachNicToBonding structure)	Optional. The bond type.	- LinuxBonding - OvsBonding	5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
}
```

SDK Sample

Java SDK

```
AttachNicToBondingAction action = new AttachNicToBondingAction();
action.uuid = "e1fa374a84f231c681df08101f0ddd99";
action.slaveUuids = asList("9cc96c09880135db95e1b7d677607d6e");
action.type = "LinuxBonding";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachNicToBondingAction.Result res = action.call();
```

Python SDK

```
AttachNicToBondingAction action = AttachNicToBondingAction()
action.uuid = "e1fa374a84f231c681df08101f0ddd99"
action.slaveUuids = [9cc96c09880135db95e1b7d677607d6e]
action.type = "LinuxBonding"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachNicToBondingAction.Result res = action.call()
```

5.2.3.19 DetachNicFromBonding

API Request

URLs

```
PUT zstack/v1/hosts/bondings/{uuid}/detach
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "detachNicFromBonding": {
    "slaveUuids": [
      "23ac510ff6a830ac8a52553e86e00b07"
    ],
    "type": "LinuxBonding"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"detachNicFromBonding":{"slaveUuids":
["23ac510ff6a830ac8a52553e86e00b07"],"type":"LinuxBonding"}}' \
http://localhost:8080/zstack/v1/hosts/bondings/
bee329acc0573a16bc30fafada5a96f6/detach
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.0.0
slaveUuids	List	body (contained in the detachNicFromBonding structure)	The slave NIC UUIDs.		5.0.0
type	String	body (contained in the detachNicFromBonding structure)	Optional. The bond type.	- LinuxBonding - OvsBonding	5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DetachNicFromBondingAction action = new DetachNicFromBondingAction();
action.uuid = "bee329acc0573a16bc30fafada5a96f6";
action.slaveUuids = asList("23ac510ff6a830ac8a52553e86e00b07");
action.type = "LinuxBonding";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachNicFromBondingAction.Result res = action.call();
```

Python SDK

```
DetachNicFromBondingAction action = DetachNicFromBondingAction()
action.uuid = "bee329acc0573a16bc30fafada5a96f6"
action.slaveUuids = ["23ac510ff6a830ac8a52553e86e00b07"]
action.type = "LinuxBonding"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachNicFromBondingAction.Result res = action.call()
```

5.2.3.20 UpdateHostNetworkInterface

API Request

URLs

```
POST zstack/v1/hosts/nics/{interfaceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "description": "description"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":{"description":"description"}}' http://localhost:8080/zstack/v1/hosts/nics/b6731de9831a3db0921965c0fd0705a4/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuid	String	url	The physical NIC port UUID.		4.7.0
description	String	body (contained in the params structure)	The resource description.		4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response

Sample Response

```
{
  "inventory": {
    "description": "network"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
inventory	HostNetworkInterface Inventory	See inventory .	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
hostUuid	String	The host UUID.	4.7.0
bondingUuid	String	The bond UUID.	4.7.0
interfaceName	String	The NIC name.	4.7.0
interfaceType	String	The NIC type. Options : nomaster, bridgeSlave, and bondSlave.	4.7.0
speed	Long	The NIC speed.	4.7.0
slaveActive	Boolean	The bond link status.	4.7.0
carrierActive	Boolean	The physical link status.	4.7.0
ipAddresses	List	The IP address.	4.7.0
gateway	String	The gateway address.	4.7.0
mac	String	The MAC address.	4.7.0
callBackIp	String	The callback IP address.	4.7.0
pciDeviceAddress	String	The interface PCI address.	4.7.0
offloadStatus	String		4.7.0
description	String	The resource description.	4.7.0
createDate	Timestamp	The creation time.	4.7.0
lastOpDate	Timestamp	The last operation time.	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
UpdateHostNetworkInterfaceAction action = new UpdateHostNetworkInt  
erfaceAction();  
action.interfaceUuid = "b6731de9831a3db0921965c0fd0705a4";  
action.description = "description";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
UpdateHostNetworkInterfaceAction.Result res = action.call();
```

Python SDK

```
UpdateHostNetworkInterfaceAction action = UpdateHostNetworkInt  
erfaceAction()  
action.interfaceUuid = "b6731de9831a3db0921965c0fd0705a4"  
action.description = "description"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateHostNetworkInterfaceAction.Result res = action.call()
```

5.2.3.21 UpdateKVMHost

API Request

URLs

```
PUT zstack/v1/hosts/kvm/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateKVMHost": {
    "username": "userName",
    "password": "password",
    "sshPort": 22.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateKVMHost":
{"username":"userName","password":"password","sshPort":22.0}}' \
http://localhost:8080/zstack/v1/hosts/
kvm/477399a02a343bf2971d86c531053f9e/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
username	String	body (contained in the updateKVMHost structure)	Optional. The username.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
password	String	body (contained in the updateKVMHost structure)	Optional. The password.		0.6
sshPort	Integer	body (contained in the updateKVMHost structure)	Optional. The SSH port.		0.6
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateKVMHost structure)	Optional. The resource name.		0.6
description	String	body (contained in the updateKVMHost structure)	Optional. The detailed description of the resource.		0.6
managementIp	String	body (contained in the updateKVMHost structure)	Optional. The IP address of the management node.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "zoneUuid": "d31e6ae8ef1e4d63be02c3be94093e90",
```

```

"name": "example",
"uuid": "3bfef74997084a7fa53b7afaf709b6d1",
"clusterUuid": "cec3beee49bb4697905c556e462b3dbe",
"description": "example",
"managementIp": "192.168.0.1",
"hypervisorType": "KVM",
"state": "Enabled",
"status": "Connected",
"totalCpuCapacity": 4.0,
"availableCpuCapacity": 2.0,
"totalMemoryCapacity": 4.0,
"availableMemoryCapacity": 4.0
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	HostInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
description	String	The detailed description of the resource.	0.6
managementIp	String		0.6
hypervisorType	String		0.6
state	String		0.6
status	String		0.6
totalCpuCapacity	Long		0.6
availableCpuCapacity	Long		0.6
cpuSockets	Integer		0.6
totalMemoryCapacity	Long		0.6
availableMemoryCapacity	Long		0.6
cpuNum	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateKVMHostAction action = new UpdateKVMHostAction();
action.username = "userName";
action.password = "password";
action.sshPort = 22.0;
action.uuid = "ca5abd5b6d8c491e87c129dd8458e85a";
action.sessionId = "86935baec2b04df38590f99f5116f045";
```

```
UpdateKVMHostAction.Result res = action.call();
```

Python SDK

```
UpdateKVMHostAction action = UpdateKVMHostAction()
action.username = "userName"
action.password = "password"
action.sshPort = 22.0
action.uuid = "dfe24a4ad70947bbac06b06acbf47297"
action.sessionId = "043064e67c5c414c904df55e29efd658"
UpdateKVMHostAction.Result res = action.call()
```

5.2.3.22 AddKVMHost

API Request

URLs

```
POST zstack/v1/hosts/kvm
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "username": "userName",
    "password": "password",
    "sshPort": 22,
    "name": "newHost",
    "managementIp": "127.0.0.1",
    "clusterUuid": "449c63f16f9144528d99315f903be36e"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"username": "userName", "password": "password", "sshPort": "22", "name": "newHost", "man
```

```
http://localhost:8080/zstack/v1/hosts/kvm
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
username	String	body (contained in the params structure)	The SSH username.		0.6
password	String	body (contained in the params structure)	The SSH password.		0.6
sshPort	int	body (contained in the params structure)	Optional. The SSH port No.		0.6
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
management Ip	String	body (contained in the params structure)	The IP address of the host management node.		0.6
clusterUuid	String	body (contained in the params structure)	The cluster UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you create a KVM host in ZStack Cloud, you can disable EPT by adding the **disable EPT** option to **SystemTags**.
 - Format of the **disable EPT** option: `pageTableExtensionDisabled`
 - Example: `pageTableExtensionDisabled`

API Response

Sample Response

```
{
  "inventory": {
    "zoneUuid": "d4160c59319c4642832e666514364a79",
    "name": "example",
    "uuid": "479e88bab7a647e3b066a724c8bb3b82",
    "clusterUuid": "42ade59801804602b9986b42fd103d1c",
    "description": "example",
    "managementIp": "192.168.0.1",
    "hypervisorType": "KVM",
    "state": "Enabled",
    "status": "Connected",
    "totalCpuCapacity": 4.0,
    "availableCpuCapacity": 2.0,
    "totalMemoryCapacity": 4.0,
    "availableMemoryCapacity": 4.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	HostInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
description	String	The detailed description of the resource.	0.6
managementIp	String		0.6
hypervisorType	String		0.6
state	String		0.6
status	String		0.6
totalCpuCapacity	Long		0.6

Name	Type	Description	Starting Version
availableCpuCapacity	Long		0.6
cpuSockets	Integer		0.6
totalMemoryCapacity	Long		0.6
availableMemoryCapacity	Long		0.6
cpuNum	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
AddKVMHostAction action = new AddKVMHostAction();
action.username = "userName";
action.password = "password";
action.sshPort = 22;
action.name = "newHost";
action.managementIp = "127.0.0.1";
action.clusterUuid = "03de4c2f2b5445b7a3ab5ba44930c4e8";
action.sessionId = "5354944d50634bed8088567b5d551e6f";
AddKVMHostAction.Result res = action.call();
```

Python SDK

```
AddKVMHostAction action = AddKVMHostAction()
action.username = "userName"
action.password = "password"
action.sshPort = 22
action.name = "newHost"
action.managementIp = "127.0.0.1"
action.clusterUuid = "9fa355cc5434466cba6fb478b8559dad"
action.sessionId = "d3770b6e43874065a1ff3cf127857e32"
```

```
AddKVMHostAction.Result res = action.call()
```

5.2.3.23 KvmRunShell

API Request

URLs

```
PUT zstack/v1/hosts/kvm/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "kvmRunShell": {
    "hostUuids": [
      "d987c37b69e14c0fbc02e32f0689e81e",
      "6d47a55252504d49a5c8f344190a578c"
    ],
    "script": "ls"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"kvmRunShell":{"hostUuids":
["7b474bb39b14397b97bc7d8d0bdd8854", "580f2a7f2ca23af6aa1c93e88d4a788e"], "script":
\
http://localhost:8080/zstack/v1/hosts/kvm/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostUuids	Set	body (contained in the	The target host UUIDs.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		kvmRunShell structure)			
script	String	body (contained in the kvmRunShell structure)	The script.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "8903b4b7fa694c149d932bc53ee716df": {
      "returnCode": 100.0,
      "stdout": "hello",
      "errorCode": {}
    }
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	Map	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
returnCode	int		0.6
stdout	String		0.6
stderr	String		0.6
errorCode	ErrorCode	See errorCode .	0.6

#errorCode

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
KvmRunShellAction action = new KvmRunShellAction();
action.hostUuids = asList("f3349fddda414ee0b64c5f32635ff76e", "
624ca9859a044fbe909f2aeef4e95b3e");
action.script = "ls";
action.sessionId = "c5e92dd1ca554dd781a50961fd8121ac";
KvmRunShellAction.Result res = action.call();
```

Python SDK

```
KvmRunShellAction action = KvmRunShellAction()
action.hostUuids = [b0e1155a97644eb1a756dd8d3de8eb3b, 04a502bd37
7e4763850d7a94ba4ffb43]
action.script = "ls"
action.sessionId = "72425e0cb8d8425f96114b5760d9a495"
```

```
KvmRunShellAction.Result res = action.call()
```

5.2.3.24 AddKVMHostFromConfigFile

API Request

URLs

```
POST zstack/v1/hosts/kvm/from-file
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "hostInfo": "FILE CONTENT ENCODE BY BASE64"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"hostInfo":"FILE CONTENT ENCODE BY BASE64"}}'
http://localhost:8080/zstack/v1/hosts/kvm/from-file
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostInfo	String	body (contained in the params structure)	The host information encoded in Base64 format		3.1.0
resourceUuid	String	body (contained in	Optional. The resource UUID.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "results": [
    {
      "ip": "127.0.0.1",
      "success": true
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		3.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
results	List	See results .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0

Name	Type	Description	Starting Version
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#results

Name	Type	Description	Starting Version
ip	String	The host IP address.	3.1.0
success	boolean		3.1.0
error	ErrorCode	See error .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

SDK Sample

Java SDK

```
AddKVMHostFromConfigFileAction action = new AddKVMHostFromConfigFileAction();
action.hostInfo = "FILE CONTENT ENCODE BY BASE64";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddKVMHostFromConfigFileAction.Result res = action.call();
```

Python SDK

```
AddKVMHostFromConfigFileAction action = AddKVMHostFromConfigFileAction()
action.hostInfo = "FILE CONTENT ENCODE BY BASE64"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddKVMHostFromConfigFileAction.Result res = action.call()
```

5.2.3.25 CheckKVMHostConfigFile

API Request

URLs

```
POST /v1/hosts/kvm/from-file/check
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "hostInfo": "FILE CONTENT ENCODE BY BASE64"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"hostInfo":"FILE CONTENT ENCODE BY BASE64"}}'
http://localhost:8080/zstack/v1/hosts/kvm/from-file/check
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostInfo	String	body (contained in the params structure)	The host information encoded in Base64 format.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
CheckKVMHostConfigFileAction action = new CheckKVMHostConfigFileAction();
action.hostInfo = "FILE CONTENT ENCODE BY BASE64";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CheckKVMHostConfigFileAction.Result res = action.call();
```

Python SDK

```
CheckKVMHostConfigFileAction action = CheckKVMHostConfigFileAction()
action.hostInfo = "FILE CONTENT ENCODE BY BASE64"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CheckKVMHostConfigFileAction.Result res = action.call()
```

5.2.3.26 SetServiceTypeOnHostNetworkInterface

API Request

URLs

```
POST zstack/v1/hosts/nics/service-types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "interfaceUuids": [
      "2894f52c7d84366c85dd115b3bc193ca"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"interfaceUuids":
["2894f52c7d84366c85dd115b3bc193ca"]}}' \
http://localhost:8080/zstack/v1/hosts/nics/service-types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuids	List	body (contained in the params structure)	The physical NIC port UUID list.		4.7.11
vlanIds	List	body (contained in the params structure)	Optional. The VLAN interface ID list.		4.7.11
serviceTypes	List	body (contained in the params structure)	Optional. The network type.	• Management Network • TenantNetwork • StorageNetwork • BackupNetwork • MigrationNetwork	4.7.11
systemTags	List	body	Optional. The system tags.		4.7.11
userTags	List	body	Optional. The user tags.		4.7.11

API Response

Sample Response

```
{
  "inventory": [
    {
      "id": 0,
      "interfaceUuid": "8534263f624a3962b7603c99a3e44eb2",
      "vlanId": 10,
      "serviceType": "BackupNetwork"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.11

Name	Type	Description	Starting Version
inventory	List	See inventory .	4.7.11
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.11

#inventory

Name	Type	Description	Starting Version
interfaceUuid	String	The physical NIC port UUID.	4.7.11
vlanId	Integer	The VLAN interface id.	4.7.11
createDate	Timestamp	The creation date.	4.7.11
lastOpDate	Timestamp	The last operation date.	4.7.11
serviceType	HostNetworkInterface ServiceType	See serviceType .	4.7.11

#serviceType

Name	Type	Description	Starting Version
ManagementNetwork	HostNetworkInterface ServiceType	The management network.	4.7.11
TenantNetwork	HostNetworkInterface ServiceType	The business network.	4.7.11
StorageNetwork	HostNetworkInterface ServiceType	The storage network.	4.7.11
BackupNetwork	HostNetworkInterface ServiceType	The backup network.	4.7.11
MigrationNetwork	HostNetworkInterface ServiceType	The migration network.	4.7.11

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.11
description	String	The brief description of the error.	4.7.11
details	String	The details about the error.	4.7.11
elaboration	String	The reserved field. Default value: null.	4.7.11
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.11
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.11

SDK Sample

Java SDK

```
SetServiceTypeOnHostNetworkInterfaceAction action = new SetServiceTypeOnHostNetworkInterfaceAction();
action.interfaceUuids = asList("2894f52c7d84366c85dd115b3bc193ca");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetServiceTypeOnHostNetworkInterfaceAction.Result res = action.call();
```

Python SDK

```
SetServiceTypeOnHostNetworkInterfaceAction action = SetServiceTypeOnHostNetworkInterfaceAction()
action.interfaceUuids = [2894f52c7d84366c85dd115b3bc193ca]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetServiceTypeOnHostNetworkInterfaceAction.Result res = action.call()
```

5.2.3.27 SetServiceTypeOnHostNetworkBonding

API Request

URLs

```
POST zstack/v1/hosts/bondings/service-types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "bondingUuids": [
      "e96881d20cde3a9ab337cdf0ab4e8b08"
    ],
    "serviceTypes": [
      "TenantNetwork"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"bondingUuids":
["e96881d20cde3a9ab337cdf0ab4e8b08"],"serviceTypes":
["TenantNetwork"]}}' \
http://localhost:8080/zstack/v1/hosts/bondings/service-types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
bondingUuids	List	body (contained in	The bond UUID list.		4.7.11

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
vlanIds	List	body (contained in the params structure)	Optional. The VLAN interface id list .		4.7.11
serviceTypes	List	body (contained in the params structure)	Optional. The network type.	• Management Network • TenantNetwork • StorageNetwork • BackupNetwork • MigrationNetwork	4.7.11
systemTags	List	body	Optional. The system tags.		4.7.11
userTags	List	body	Optional. The user tags.		4.7.11

API Response

Sample Response

```
{
  "inventory": [
    {
      "id": 0,
      "bondingUuid": "d1fd53a607c936859414f6222175c820",
      "vlanId": 10,
      "serviceType": "BackupNetwork"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.11
inventory	List	See inventory .	4.7.11

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.11

#inventory

Name	Type	Description	Starting Version
bondingUuid	String	The bond UUID.	4.7.11
vlanId	Integer	The VLAN interface ID.	4.7.11
createDate	Timestamp	The creation date.	4.7.11
lastOpDate	Timestamp	The last operation date.	4.7.11
serviceType	HostNetworkInterface ServiceType	See serviceType .	4.7.11

#serviceType

Name	Type	Description	Starting Version
ManagementNetwork	HostNetworkInterface ServiceType	The management network.	4.7.11
TenantNetwork	HostNetworkInterface ServiceType	The business network.	4.7.11
StorageNetwork	HostNetworkInterface ServiceType	The storage network.	4.7.11
BackupNetwork	HostNetworkInterface ServiceType	The backup network.	4.7.11
MigrationNetwork	HostNetworkInterface ServiceType	The migration network.	4.7.11

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	4.7.11

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.7.11
details	String	The details about the error.	4.7.11
elaboration	String	The reserved field. Default value: null.	4.7.11
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.11
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.11

SDK Sample

Java SDK

```
SetServiceTypeOnHostNetworkBondingAction action = new SetServiceTypeOnHostNetworkBondingAction();
action.bondingUuids = asList("e96881d20cde3a9ab337cdf0ab4e8b08");
action.serviceTypes = asList("TenantNetwork");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetServiceTypeOnHostNetworkBondingAction.Result res = action.call();
```

Python SDK

```
SetServiceTypeOnHostNetworkBondingAction action = SetServiceTypeOnHostNetworkBondingAction()
action.bondingUuids = [e96881d20cde3a9ab337cdf0ab4e8b08]
action.serviceTypes = [TenantNetwork]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetServiceTypeOnHostNetworkBondingAction.Result res = action.call()
```

5.2.3.28 GetInterfaceServiceTypeStatistic

API Request

URLs

```
GET zstack/v1/hosts/hosts-network-interfaces/service-type-statistic
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hosts/hosts-network-interfaces/
service-type-statistic? \
interfaceUuid=d8797841479d3951bcb698164b56bd9e&interfaceType=All&sortBy=CreateDate
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuid	String	query	Optional. The NIC port UUID.		4.7.11
vlanId	Integer	query	Optional. The VLAN interface ID.		4.7.11
interfaceType	String	query	Optional. The NIC port type.	- All - Interface - Bonding	4.7.11
serviceType	List	query	Optional. The network type.	- All - Management Network - TenantNetwork - StorageNetwork - MigrationNetwork	4.7.11

Name	Type	Location	Description	Optional Value	Starting Version
				BackupNetwork	
zoneUuid	String	query	Optional. The zone UUID.		4.7.11
clusterUuid	String	query	Optional. The cluster UUID.		4.7.11
hostUuid	String	query	Optional. The host UUID.		4.7.11
sortBy	String	query	Optional. The sort method.	- InterfaceName - VlanId - HostIp - HostName - ClusterName - CreateDate	4.7.11
sortDirection	String	query	Optional. The sort direction.	- asc - desc	4.7.11
start	Integer	query	Optional. The location where the statistics starts.		4.7.11
limit	Integer	query	Optional. The count of the statistics.		4.7.11
replyWithCount	boolean	query	Optional. Whether to return both the statistics result and count.		4.7.11
systemTags	List	query	Optional. The system tags.		4.7.11
userTags	List	query	Optional. The user tags.		4.7.11

API Response

Sample Response

```
{
  "serviceTypeStatistics": [
    {
      "interfaceUuid": "474f9d7d7a1d3b46b8f17363dca7ebef",
      "serviceTypes": [
        "ManagementNetwork"
      ]
    }
  ],
  "total": 1
}
```

Name	Type	Description	Starting Version
total	Long	The total count of the statistics.	4.7.11
success	boolean	Whether the API succeeds.	4.7.11
serviceTypeStatistics	List	See serviceTypeStatistics .	4.7.11
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.7.11

#serviceTypeStatistics

名字	类型	描述	起始版本
interfaceUuid	String	The network interface UUID.	4.7.11
interfaceName	String	The network interface name.	4.7.11
vlanId	Integer	The vlan interface ID.	4.7.11
serviceTypes	List	The network type list.	4.7.11
hostUuid	String	The host UUID.	4.7.11
hostName	String	The host name.	4.7.11
hostIp	String	The host IP.	4.7.11
clusterUuid	String	The cluster UUID.	4.7.11

名字	类型	描述	起始版本
clusterName	String	The cluster name.	4.7.11
zoneUuid	String	The zone UUID.	4.7.11
createDate	Timestamp	The date of creation.	4.7.11

#error

名字	类型	描述	起始版本
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```

GetInterfaceServiceTypeStatisticAction action = new GetInterfaceServiceTypeStatisticAction();
action.interfaceUuid = "d8797841479d3951bcb698164b56bd9e";
action.interfaceType = "All";
action.sortBy = "CreateDate";
action.sortDirection = "asc";
action.start = 0;
action.limit = 20;
action.replyWithCount = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
GetInterfaceServiceTypeStatisticAction.Result res = action.call();
```

Python SDK

```
GetInterfaceServiceTypeStatisticAction action = GetInterfaceServiceT  
ypeStatisticAction()  
action.interfaceUuid = "d8797841479d3951bcb698164b56bd9e"  
action.interfaceType = "All"  
action.sortBy = "CreateDate"  
action.sortDirection = "asc"  
action.start = 0  
action.limit = 20  
action.replyWithCount = false  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
GetInterfaceServiceTypeStatisticAction.Result res = action.call()
```

5.2.3.29 GetHostNetworkFacts

API Request

URLs

```
GET zstack/v1/hosts/network-facts/{hostUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/hosts/network-  
facts/9397de8c860231c08b87031e226c691b
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostUuid	String	url	The host UUID.		3.5.0
systemTags	List	query	Optional. The system tags.		3.5.0
userTags	List	query	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "bondings": [
    {
      "uuid": "c1ff34db684e3b8785572902ef99efea",
      "hostUuid": "e336fa8ef9283fe4a4d746957284379a",
      "bondingName": "bond0",
      "mode": "active-backup 1",
      "xmitHashPolicy": "layer2 0",
      "miiStatus": "up",
      "mac": "ac:1f:6b:93:6c:8c",
      "ipAddresses": [
        "172.20.0.116/16"
      ],
      "miimon": 100.0,
      "allSlavesActive": true,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "slaves": [
        {
          "uuid": "08643629c29d34a0a4a2d858b49a41a4",
          "hostUuid": "e336fa8ef9283fe4a4d746957284379a",
          "bondingUuid": "c1ff34db684e3b8785572902ef99efea",
          "interfaceName": "eno1",
          "interfaceType": "bondingSlave",
          "speed": 1000.0,
          "slaveActive": true,
          "carrierActive": true,
          "mac": "ac:1f:6b:93:6c:8c",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        },
        {
          "uuid": "14ca7ad13e573cfdb6f929b12b750553",
          "hostUuid": "e336fa8ef9283fe4a4d746957284379a",
          "bondingUuid": "c1ff34db684e3b8785572902ef99efea",
          "interfaceName": "eno2",
          "interfaceType": "bondingSlave",
          "speed": 1000.0,
          "slaveActive": false,
          "carrierActive": false,
          "mac": "ac:1f:6b:93:6c:8c",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ]
    }
  ],
  "nics": [
    {
      "uuid": "08643629c29d34a0a4a2d858b49a41a4",
      "hostUuid": "e336fa8ef9283fe4a4d746957284379a",
      "bondingUuid": "c1ff34db684e3b8785572902ef99efea",
      "interfaceName": "eno1",
      "interfaceType": "bondingSlave",
      "speed": 1000.0,
      "slaveActive": true,
      "carrierActive": true,

```

```

    "mac": "ac:1f:6b:93:6c:8c",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  {
    "uuid": "14ca7ad13e573cfdb6f929b12b750553",
    "hostUuid": "e336fa8ef9283fe4a4d746957284379a",
    "bondingUuid": "c1ff34db684e3b8785572902ef99efea",
    "interfaceName": "eno2",
    "interfaceType": "bondingSlave",
    "speed": 1000.0,
    "slaveActive": false,
    "carrierActive": false,
    "mac": "ac:1f:6b:93:6c:8c",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  {
    "uuid": "8d871eb89020363ebc764ed41be4c213",
    "hostUuid": "e336fa8ef9283fe4a4d746957284379a",
    "interfaceName": "ens2f0",
    "interfaceType": "noMaster",
    "speed": 1000.0,
    "slaveActive": true,
    "carrierActive": true,
    "ipAddresses": [
      "169.254.0.115/24"
    ],
    "mac": "98:03:9b:00:ea:f2",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  {
    "uuid": "d39d0eead2d53e47a8f7b3aca375c1d3",
    "hostUuid": "e336fa8ef9283fe4a4d746957284379a",
    "interfaceName": "ens2f1",
    "interfaceType": "bridgeSlave",
    "speed": 1000.0,
    "slaveActive": false,
    "carrierActive": false,
    "mac": "98:03:9b:00:ea:f3",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
success	boolean		3.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
bondings	List	See bondings .	3.5.0

Name	Type	Description	Starting Version
nics	List	See nics .	3.5.0
error	ErrorCode	See error .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#bondings

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
hostUuid	String	The host UUID.	3.5.0
bondingName	String	The bond name.	3.5.0
mode	String	The bond mode.	3.5.0
xmitHashPolicy	String	The hash policy.	3.5.0
miiStatus	String	The MII status.	3.5.0

Name	Type	Description	Starting Version
mac	String	The MAC address.	3.5.0
ipAddresses	List	The IP address.	3.5.0
miimon	Long	The MII monitoring interval.	3.5.0
allSlavesActive	Boolean		3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
slaves	List	See slaves .	3.5.0

#slaves

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
hostUuid	String	The host UUID.	3.5.0
bondingUuid	String	The bond UUID.	3.5.0
interfaceName	String	The interface name.	3.5.0
interfaceType	String	The interface type. Options: nomaster , bridgeSlave, and bondSlave.	3.5.0
speed	Long	The interface speed.	3.5.0
slaveActive	Boolean	The bond link status.	3.5.0
carrierActive	Boolean	The physical link status.	3.5.0
ipAddresses	List	The IP address.	3.5.0
mac	String	The MAC address.	3.5.0
pciDeviceAddress	String	The PCI address of the interface.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

#nics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
hostUuid	String	The host UUID.	3.5.0
bondingUuid	String	The bond UUID.	3.5.0
interfaceName	String	The interface name.	3.5.0
interfaceType	String	The interface type. Options: nomaster , bridgeSlave, and bondSlave.	3.5.0
speed	Long	The interface speed.	3.5.0
slaveActive	Boolean	The bond link status.	3.5.0
carrierActive	Boolean	The physical link status.	3.5.0
ipAddresses	List	The IP address.	3.5.0
mac	String	The MAC address.	3.5.0
pciDeviceAddress	String	The PCI address of the interface.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

SDK Sample

Java SDK

```
GetHostNetworkFactsAction action = new GetHostNetworkFactsAction();
action.hostUuid = "9397de8c860231c08b87031e226c691b";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetHostNetworkFactsAction.Result res = action.call();
```

Python SDK

```
GetHostNetworkFactsAction action = GetHostNetworkFactsAction()
action.hostUuid = "9397de8c860231c08b87031e226c691b"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetHostNetworkFactsAction.Result res = action.call()
```

5.2.3.30 QueryHostNetworkBonding

API Request

URLs

```
GET zstack/v1/hosts/bondings
```

```
GET zstack/v1/hosts/bondings/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hosts/bondings
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/hosts/
bondings/4557b1f12ef7393c926b8b7223ddebac
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryHostNetworkBonding**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "2e2226e18e853f20a5791684a1b644c8",
      "hostUuid": "903696c585a639bb8049713b98d93437",
      "bondingName": "bond0",
      "mode": "active-backup 1",
      "xmitHashPolicy": "layer2 0",
      "miiStatus": "up",
      "mac": "ac:1f:6b:93:6c:8c",
      "ipAddresses": [
        "172.20.0.116/16"
      ],
      "miimon": 100.0,
      "allSlavesActive": true,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "slaves": [
        {
          "uuid": "17a40aa475cf322494ea82e09066892e",
          "hostUuid": "903696c585a639bb8049713b98d93437",
          "bondingUuid": "2e2226e18e853f20a5791684a1b644c8",
          "interfaceName": "eno1",
          "interfaceType": "bondingSlave",
          "speed": 1000.0,
          "slaveActive": true,
          "carrierActive": true,
          "mac": "ac:1f:6b:93:6c:8c",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        },
        {
          "uuid": "c3716c87b9173cbb8315e7d7f3645bc4",
          "hostUuid": "903696c585a639bb8049713b98d93437",
          "bondingUuid": "2e2226e18e853f20a5791684a1b644c8",
          "interfaceName": "eno2",
          "interfaceType": "bondingSlave",
          "speed": 1000.0,
          "slaveActive": false,
          "carrierActive": false,
          "mac": "ac:1f:6b:93:6c:8c",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ]
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventories	List	See inventories .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
hostUuid	String	The host UUID.	3.9.0

Name	Type	Description	Starting Version
bondingName	String	The bond name.	3.9.0
mode	String	The bond mode.	3.9.0
xmitHashPolicy	String	The hash policy.	3.9.0
miiStatus	String	The MII status.	3.9.0
mac	String	The MAC address.	3.9.0
ipAddresses	List	The IP address.	3.9.0
miimon	Long	The MII monitoring interval.	3.9.0
allSlavesActive	Boolean		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
slaves	List	See slaves .	3.9.0

#slaves

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
hostUuid	String	The host UUID.	3.9.0
bondingUuid	String	The bond UUID.	3.9.0
interfaceName	String	The interface name.	3.9.0
interfaceType	String	The interface type. Options: nomaster , bridgeSlave, and bondSlave.	3.9.0
speed	Long	The interface speed.	3.9.0
slaveActive	Boolean	The bond link status.	3.9.0
carrierActive	Boolean	The physical link status.	3.9.0
ipAddresses	List	The IP address.	3.9.0
mac	String	The MAC address.	3.9.0
pciDeviceAddress	String	The PCI address of the interface.	3.9.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
QueryHostNetworkBondingAction action = new QueryHostNetworkBondingAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryHostNetworkBondingAction.Result res = action.call();
```

Python SDK

```
QueryHostNetworkBondingAction action = QueryHostNetworkBondingAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryHostNetworkBondingAction.Result res = action.call()
```

5.2.3.31 QueryHostNetworkInterface

API Request

URLs

```
GET zstack/v1/hosts/nics
```

```
GET zstack/v1/hosts/nics/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hosts/nics
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hosts/nics/
df5b59fdb3c9388297fd89c5fa6dea65
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryHostNetworkInterface**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "310ca8ce7010363ca7ac83d37373238f",
      "hostUuid": "7f8d05522f01397e97f60d84f5ffa2b9",
      "bondingUuid": "6fbe88605eed35ba95399687585be3d1",
      "interfaceName": "eno1",
      "interfaceType": "bondingSlave",
      "speed": 1000.0,
      "slaveActive": true,
      "carrierActive": true,
      "mac": "98:03:9b:00:ea:f1",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    {
      "uuid": "3213802883d13c72b54c084233c4de2a",
      "hostUuid": "7f8d05522f01397e97f60d84f5ffa2b9",
      "bondingUuid": "6fbe88605eed35ba95399687585be3d1",
      "interfaceName": "eno2",
      "interfaceType": "bondingSlave",
      "speed": 1000.0,
      "slaveActive": false,
      "carrierActive": false,
      "mac": "98:03:9b:00:ea:f1",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    {
      "uuid": "3015b6b0c74d316699e09dc60e1001",
      "hostUuid": "7f8d05522f01397e97f60d84f5ffa2b9",
      "interfaceName": "ens2f0",
      "interfaceType": "noMaster",
      "speed": 1000.0,
      "slaveActive": true,
      "carrierActive": true,
      "ipAddresses": [
        "169.254.0.115/24"
      ],
      "mac": "98:03:9b:00:ea:f2",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    {
      "uuid": "e3b513e177a1313a93b32b290643f849",
      "hostUuid": "7f8d05522f01397e97f60d84f5ffa2b9",
      "interfaceName": "ens2f1",
      "interfaceType": "bridgeSlave",
      "speed": 1000.0,
      "slaveActive": false,
      "carrierActive": false,
      "mac": "98:03:9b:00:ea:f3",
      "createDate": "Nov 14, 2017 10:20:57 PM",

```

```

    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventories	List	See inventories .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0

Name	Type	Description	Starting Version
hostUuid	String	The host UUID.	3.9.0
bondingUuid	String	The bond UUID.	3.9.0
interfaceName	String	The interface name.	3.9.0
interfaceType	String	The interface type. Options: nomaster , bridgeSlave, and bondSlave.	3.9.0
speed	Long	The interface speed.	3.9.0
slaveActive	Boolean	The bond link status.	3.9.0
carrierActive	Boolean	The physical link status.	3.9.0
ipAddresses	List	The IP address.	3.9.0
mac	String	The MAC address.	3.9.0
pciDeviceAddress	String	The PCI address of the interface.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
QueryHostNetworkInterfaceAction action = new QueryHostNetworkInterfaceAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryHostNetworkInterfaceAction.Result res = action.call();
```

Python SDK

```
QueryHostNetworkInterfaceAction action = QueryHostNetworkInterfaceAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryHostNetworkInterfaceAction.Result res = action.call()
```

5.2.3.32 QueryHBADevice

API Request

URLs

```
GET zstack/v1/storage-devices/hba
```

```
GET zstack/v1/storage-devices/hba/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/hba?
q=uuid=db041d8a238732be82740eaf5a43d252
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/
hba/1698716626f33b6fb1637a76590e1fe6
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using zstack-cli, entering **QueryFcHbaDevice**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "portName": "10000090fab38778",
      "portState": "Online",
      "speed": "8 Gbit",
      "supportedSpeeds": "16 Gbit",
      "symbolicName": "QLE2692 FW:v9.07.00 DVR:v10.02.00.106-k",
      "supportedClasses": "Class 3",
      "uuid": "511a5ac34b423ac99a33d5c863531d2e",
      "name": "host",
      "hostUuid": "38e3ebc0b54e3cf8a99db5f7c80ee59e",
      "hbaType": "FC"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.3.0
inventories	List	See inventories	5.3.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.0

#inventories

Name	Type	Description	Starting version
uuid	String	The resource UUID.	5.3.0
name	String	The resource name.	5.3.0
hostUuid	String	The host UUID.	5.3.0
portName	String	The port name.	5.3.0
portState	String	The port status.	5.3.0
hbaType	String	The HBA type.	5.3.0
speed	String	The device speed.	5.3.0
supportedSpeeds	String	The supported speed.	5.3.0
symbolicName	String	The symbolic name.	5.3.0
supportedClasses	String	The supported class.	5.3.0
createDate	String	The creation date.	5.3.0
lastOpDate	String	The last operation date.	5.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	5.3.0
details	String	The details about the error.	5.3.0
elaboration	String	The reserved field. Default value: null.	5.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.0

SDK Sample

Java SDK

```
QueryFcHbaDeviceAction action = new QueryFcHbaDeviceAction();  
action.conditions = asList("uuid=744cbe74c6f8365dafdbcf9568cfafa0");  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
QueryFcHbaDeviceAction.Result res = action.call();
```

Python SDK

```
QueryFcHbaDeviceAction action = QueryFcHbaDeviceAction()  
action.conditions = ["uuid=e8b3f35dce0c38da8cec8a56347899e9"]  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
QueryFcHbaDeviceAction.Result res = action.call()
```

5.2.3.33 GetHostNUMATopology

API Request

URLs

```
POST zstack/v1/hosts/{uuid}/numa
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/
hosts/21529457e42c30f0a9b2a137915a0b28/numa
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The host UUID.		4.3.12

API Response

Sample Response

```
{
  "topology": {
    "0": {
      "distance": ["10", "10", "21", "21"],
      "cpus": ["0", "1", "2", "3", "4", "5", "6", "7"],
      "VMsUuid": ["f7bae73b9874344b8766dfcdda48ad6e", "f7bae73b9874344b8766dfcdda48ad6e"],
      "free": 5688.0,
      "size": 8191.0
    },
    "1": {
      "distance": ["10", "10", "21", "21"],
      "cpus": ["16", "17", "18", "19", "20", "21", "22", "23"],
      "VMsUuid": ["f7bae73b9874344b8766dfcdda48ad6e", "f7bae73b9874344b8766dfcdda48ad6e"],
      "free": 5688.0,
      "size": 8191.0
    },
    "2": {
      "distance": ["21", "21", "10", "10"],
```

```

        "cpus": ["8", "9", "10", "11", "12", "13", "14", "15"],
        "VMsUuid": ["f7bae73b9874344b8766dfcdda48ad6e", "f7bae73b9874344b8766dfcdda48ad6e"],
        "free": 5688.0,
        "size": 8191.0
    },
    "3": {
        "distance": ["21", "21", "10", "10"],
        "cpus": ["24", "25", "26", "27", "28", "29", "30", "31"],
        "VMsUuid": ["f7bae73b9874344b8766dfcdda48ad6e", "f7bae73b9874344b8766dfcdda48ad6e"],
        "free": 5688.0,
        "size": 8191.0
    }
},
"name": "172.20.14.243",
"uuid": "7fd86bbe6ca94a8d810aa1d33e29932c"
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.3.12
name	String	The resource name.	4.3.12
uuid	String	The resource UUID.	4.3.12
topology	String	The pNUMA topology, For more information, see topology .	4.3.12

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.3.12
description	String	The brief description of the error.	4.3.12
details	String	The details about the error.	4.3.12

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	4.3.12
opaque	LinkedHashMap	The reserved field. Default value: null.	4.3.12
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.3.12

#topology

Name	Type	Description	Starting Version
cpus	array[string]	The CPU IDs of the pNUMA node.	4.3.12
size	long	The total memory size of the NUMA node, in the unit of B.	4.3.12
distance	array[string]	The distance of the pNUMA node with another node.	4.3.12
VMsUuid	array[string]	The UUIDs of the VM instances associated with the pNUMA node.	4.3.12
free	long	The free memory size of the pNUMA node, in the unit of B.	4.3.12

SDK Sample

Java SDK

```
GetHostNUMATopologyAction action = new GetHostNUMATopologyAction();
action.uuid = "2b8e587e99093c46b27e774dfe93024f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetHostNUMATopologyAction.Result res = action.call();
```

Python SDK

```
GetHostNUMATopologyAction action = new GetHostNUMATopologyAction();
```

```
action.uuid = "2b8e587e99093c46b27e774dfe93024f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetHostNUMATopologyAction.Result res = action.call();
```

5.2.3.34 AllocateHostResource

API Request

URLs

```
POST zstack/v1/hosts/{uuid}/allocate-resource
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "strategy": "continuous",
    "scene": "normal",
    "vcpu": 2,
    "memSize": 1234567
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"strategy":"continuous","scene":"normal","vcpu":2,"memSize":1234567}}'
http://localhost:8080/zstack/v1/
hosts/0ce1fccc44b53601a54c3090233c07dd/allocate-resource
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.11

Name	Type	Location	Description	Optional Value	Starting Version
strategy	String	body (contained in the params structure)	The resource allocation policy.	continuous	4.7.11
scene	String	body (contained in the params structure)	The scene type.	- normal - performance	4.7.11
vcpu	int	body (contained in the params structure)	The number of vCPUs that need to be allocated to a VM instance.		4.7.11
memSize	Long	body (contained in the params structure)	Optional. The memory size of the vNUMA node.		4.7.11
systemTags	List	body	Optional. The system tags.		4.7.11
userTags	List	body	Optional. The user tags.		4.7.11

API Response

Sample Response

```
{
  "name": "example",
  "uuid": "f7bae73b9874344b8766dfcdda48ad6e",
  "vCPUPin": [
    {
      "vCPU": "0",
      "pCPU": "13"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.11
name	String	The resource name.	4.7.11

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.11
vCPUPin	List	The CPU pinning.	4.7.11
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.7.11

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.11
description	String	The short description of the error.	4.7.11
details	String	The details about the error.	4.7.11
elaboration	String	The reserved field. Default value: null.	4.7.11
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.11
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.11

SDK Sample

Java SDK

```
AllocateHostResourceAction action = new AllocateHostResourceAction();
action.uuid = "0ce1fccc44b53601a54c3090233c07dd";
action.strategy = "continuous";
action.scene = "normal";
```

```
action.vcpu = 2;
action.memSize = 1234567;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AllocateHostResourceAction.Result res = action.call();
```

Python SDK

```
AllocateHostResourceAction action = AllocateHostResourceAction()
action.uuid = "0ce1fccc44b53601a54c3090233c07dd"
action.strategy = "continuous"
action.scene = "normal"
action.vcpu = 2
action.memSize = 1234567
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AllocateHostResourceAction.Result res = action.call()
```

5.2.3.35 GetHostResourceAllocation

API Request

URLs

```
POST zstack/v1/hosts/{uuid}/resource-allocation
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "strategy": "continuous",
    "scene": "normal",
    "vcpu": 60
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST //localhost:8080/zstack/v1/
hosts/21529457e42c30f0a9b2a137915a0b28/resource-allocation -d
```

```
'{"params": {"strategy": "continuous", "scene": "normal", "vcpu": 60}}'
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The host UUID.		4.3.12
strategy	String	body(contained in the params structure)	The resource allocation policy.	continuous	4.3.12
scene	String	body(contained in the params structure)	The scene type.	- normal - performance	4.3.12
vcpu	String	body(contained in the params structure)	The number of vCPUs that need to be allocated to a VM instance.	[1,512]	4.3.12

API Response

Sample Response

```
{
  "name": "example",
  "uuid": "f7bae73b9874344b8766dfcdda48ad6e",
  "vCPUPin": [
    {
      "vCPU": "0",
      "pCPU": "13"
    },
    {
      "vCPU": "1",
      "pCPU": "12"
    },
    {
      "vCPU": "2",
      "pCPU": "11"
    },
    {
      "vCPU": "3",
      "pCPU": "10"
    },
    {
      "vCPU": "4",
      "pCPU": "9"
    }
  ]
}
```



```

    "vCPU": "5",
    "pCPU": "8"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.3.12
name	String	The resource name.	4.3.12
uuid	String	The resource UUID.	4.3.12
vCPUPin	array[json]	The CPU pinning. For more information, see CPU Pin .	4.3.12

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.3.12
description	String	The brief description of the error.	4.3.12
details	String	The details about the error.	4.3.12
elaboration	String	The reserved field. Default value: null.	4.3.12
opaque	LinkedHashMap	The reserved field. Default value: null.	4.3.12
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.3.12

#CPU Pin

Name	Type	Description	Starting Version
vCPU	string	The VM vCPU ID.	4.3.12
pCPU	string	The host pCPU ID.	4.3.12

SDK Sample

Java SDK

```
GetHostResourceAllocationAction action = new GetHostResourceAllocationAction()
action.uuid = "ff6d905e75d63e18ab0a9fc2ac14951c"
action.scene = "normal"
action.strategy = "continuous"
action.vcpu = 60
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetHostResourceAllocationAction.Result res = action.call()
```

Python SDK

```
GetHostResourceAllocationAction action = new GetHostResourceAllocationAction()
action.uuid = "ff6d905e75d63e18ab0a9fc2ac14951c"
action.scene = "normal"
action.strategy = "continuous"
action.vcpu = 60
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetHostResourceAllocationAction.Result res = action.call()
```

5.2.3.36 GetHostPowerStatus

API Request

URLs

```
PUT zstack/v1/hosts/power/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "getHostPowerStatus": {
    "method": "AUTO"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"getHostPowerStatus":{"method":"AUTO"}}' //
localhost:8080/zstack/v1/hosts/power/12d6c065d8cb3e128b5c33f7c619f65f/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0
method	String	body (contained in the getHostPowerStatus structure)	Optional. The method to get the host power status.	- AUTO - AGENT - IPMI	4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags (可选)	List	body	Optional. The user tags.		4.7.0

API Response**Sample Response**

```
{
  "inventory": {
    "ipmiAddress": "192.168.0.1",
    "ipmiUsername": "admin",
    "ipmiPort": 623,
    "ipmiPassword": "password",
    "ipmiPowerStatus": "POWER_ON"
  }
}
```

}

Name	Type	Description	Starting Version
success			4.7.0
inventory		See inventory .	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
ipmiAddress	String	The IPMI address.	4.7.0
ipmiUsername	String	The IPMI user name.	4.7.0
ipmiPort	int	The IPMI port.	4.7.0
ipmiPowerStatus	String	The IPMI power status.	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
GetHostPowerStatusAction action = new GetHostPowerStatusAction();
action.uuid = "12d6c065d8cb3e128b5c33f7c619f65f";
action.method = "AUTO";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetHostPowerStatusAction.Result res = action.call();
```

Python SDK

```
GetHostPowerStatusAction action = GetHostPowerStatusAction()
action.uuid = "12d6c065d8cb3e128b5c33f7c619f65f"
action.method = "AUTO"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetHostPowerStatusAction.Result res = action.call()
```

5.2.3.37 GetHostWebSshUrl

API Request

URLs

```
POST zstack/v1/hosts/webssh
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "uuid": "1e6eb11de9d5347e9a5bc72269f45247",
    "https": false
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"uuid":"1e6eb11de9d5347e9a5bc72269f45247","https":false}}' //
localhost:8080/zstack/v1/hosts/webssh
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	body (contained in the params structure)	The resource UUID.		4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0
https (可选)	Boolean	body (contained in the params structure)			4.7.11

API Response**Sample Response**

```
{
  "url": "ws://{ip}:8888/ws?id\u003d140147795208568"
}
```

Name	Type	Description	Starting Version
url	String	The host URL.	4.7.0
success			4.7.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```

GetHostWebSshUrlAction action = new GetHostWebSshUrlAction();
action.uuid = "1e6eb11de9d5347e9a5bc72269f45247";
action.https = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
GetHostWebSshUrlAction.Result res = action.call();
```

Python SDK

```
GetHostWebSshUrlAction action = GetHostWebSshUrlAction()
action.uuid = "1e6eb11de9d5347e9a5bc72269f45247"
action.https = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetHostWebSshUrlAction.Result res = action.call()
```

5.2.3.38 PowerOnHost

API Request

URLs

```
PUT zstack/v1/hosts/power/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "powerOnHost": {
    "returnEarly": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"powerOnHost":{"returnEarly":false}}' //
localhost:8080/zstack/v1/hosts/power/494e84c334963183bfeef342e38bf4b4/
actions
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		4.7.0
returnEarly	boolean	body (contained in the powerOnHost structure)	Optional. Whether to make the result returned earlier.		4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
PowerOnHostAction action = new PowerOnHostAction();
action.uuid = "494e84c334963183bfeef342e38bf4b4";
action.returnEarly = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PowerOnHostAction.Result res = action.call();
```

Python SDK

```
PowerOnHostAction action = PowerOnHostAction()
action.uuid = "494e84c334963183bfeef342e38bf4b4"
action.returnEarly = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
PowerOnHostAction.Result res = action.call()
```

5.2.3.39 PowerResetHost

API Request

URLs

```
PUT zstack/v1/hosts/power/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "powerResetHost": {
    "returnEarly": false,
    "method": "AUTO"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"powerResetHost":
{"returnEarly":false,"method":"AUTO"}}' //localhost:8080/zstack/v1/
hosts/power/cbe0a6dc2b2b3dc9a84928f27461816b/actions
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		4.7.0
method	String	body (contained in the powerReset	Optional. The method to reboot the host.	- AUTO - AGENT - IPMI	4.7.0

Name	Type	Location	Description	Valid Values	Starting Version
		Host structure)			
systemTags	List	body	Optional. The system tags.		4.7.0
userTags (可选)	List	body	Optional. The user tags.		4.7.0
returnEarly	boolean	body (contained in the powerReset Host structure)	Optional. Whether to make the result returned earlier.		4.7.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
PowerResetHostAction action = new PowerResetHostAction();
action.uuid = "cbe0a6dc2b2b3dc9a84928f27461816b";
action.returnEarly = false;
action.method = "AUTO";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PowerResetHostAction.Result res = action.call();
```

Python SDK

```
PowerResetHostAction action = PowerResetHostAction()
action.uuid = "cbe0a6dc2b2b3dc9a84928f27461816b"
action.returnEarly = false
action.method = "AUTO"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
PowerResetHostAction.Result res = action.call()
```

5.2.3.40 ShutdownHost

API Request

URLs

```
PUT zstack/v1/hosts/power/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "shutdownHost": {
    "returnEarly": false,
    "force": false,
    "method": "AUTO"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"shutdownHost":
{"returnEarly":false,"force":false,"method":"AUTO"}}' //
localhost:8080/zstack/v1/hosts/power/700457ff11133edf93541013f6caf8e7/
actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0
returnEarly	boolean	body (contained in the	Optional. Whether to make the		4.7.0

Name	Type	Location	Description	Valid Value	Starting Version
		shutdownHost structure)	result returned earlier.		
force	boolean	body (contained in the shutdownHost structure)	Optional. Whether to forcefully power off the host.		0.6
method	String	body (contained in the shutdownHost structure)	Optional. The method to power off the host.	- AUTO - AGENT - IPMI	4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ShutdownHostAction action = new ShutdownHostAction();
action.uuid = "700457ff11133edf93541013f6caf8e7";
action.returnEarly = false;
action.force = false;
action.method = "AUTO";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ShutdownHostAction.Result res = action.call();
```

Python SDK

```
ShutdownHostAction action = ShutdownHostAction()
action.uuid = "700457ff11133edf93541013f6caf8e7"
action.returnEarly = false
action.force = false
action.method = "AUTO"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ShutdownHostAction.Result res = action.call()
```

5.2.3.41 UpdateHostIpmi

API Request

URLs

```
PUT zstack/v1/hosts/ipmi/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateHostIpmi": {
    "ipmiAddress": "127.0.0.10",
    "ipmiUsername": "admin",
    "ipmiPassword": "password",
    "ipmiPort": 623
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \-X PUT -d
'{"updateHostIpmi":
{"ipmiAddress":"127.0.0.10","ipmiUsername":"admin","ipmiPassword":"password","ipmiPort":623},
"systemTags": [],
"userTags": []}'
http://localhost:8080/zstack/v1/hosts/
ipmi/6cbd75f1a7cb3805b47a8dca8871c1c6/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0
ipmiAddress	String	body (contained in the updateHostIpmi structure)	Optional. The IPMI address.		4.7.0
ipmiUsername	String	body (contained in the updateHostIpmi structure)	Optional. The IPMI user name.		4.7.0
ipmiPassword	String	body (contained in the updateHostIpmi structure)	Optional. The IPMI password.		4.7.0
ipmiPort	int	body (contained in the updateHostIpmi structure)	Optional. The IPMI port.		4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response

Sample Response

```
{
  "hostIpmiInventory": {
    "ipmiAddress": "192.168.0.1",
    "ipmiUsername": "admin",
    "ipmiPort": 623,
    "ipmiPassword": "password"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.7.0
hostIpmlInventory	HostIpmlInventory	See	4.7.0
error	ErrorCode	The error code. If not null, the operation fails , or vice versa. For more information, see	4.7.0

#hostIpmlInventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
ipmiAddress	String	The IPMI address.	4.7.0
ipmiUsername	String	The IPMI user name.	4.7.0
ipmiPort	int	The IPMI port.	4.7.0
ipmiPowerStatus	String	The IPMI power status .	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
UpdateHostIpmiAction action = new UpdateHostIpmiAction();
action.uuid = "6cbd75f1a7cb3805b47a8dca8871c1c6";
action.ipmiAddress = "127.0.0.10";
action.ipmiUsername = "admin";
action.ipmiPassword = "password";
action.ipmiPort = 623;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateHostIpmiAction.Result res = action.call();
```

Python SDK

```
UpdateHostIpmiAction action = UpdateHostIpmiAction()
action.uuid = "6cbd75f1a7cb3805b47a8dca8871c1c6"
action.ipmiAddress = "127.0.0.10"
action.ipmiUsername = "admin"
action.ipmiPassword = "password"
action.ipmiPort = 623
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateHostIpmiAction.Result res = action.call()
```

5.2.3.42 PCI Device Operations

5.2.3.42.1 QueryPciDevice

API Request

URL

```
GET zstack/v1/pci-device/pci-devices
GET zstack/v1/pci-device/pci-devices/{uuid}
```

Header

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 043ef942ef97460bba5c9381bb7a7455" \
```

```
-X GET http://localhost:8080/zstack/v1/pci-device/pci-devices
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 4af958832a32465aa544c3d7722af1da" \
-X GET http://localhost:8080/zstack/v1/pci-device/pci-devices/5b39eaae24e84e4ca7eb0bc56d6827c1
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryPciDevice`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {}
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventories	List	See inventories .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	2.1
hostUuid	String	The host UUID.	2.1
parentUuid	String	The UUID of the physical PCI device.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	2.1
pciSpecUuid	String	The UUID of the PCI device specification.	3.5.0
vendorId	String	The vendor ID.	2.1
deviceId	String	The device ID.	2.1
subvendorId	String	The sub-vendor ID.	2.1
subdeviceId	String	The sub-device ID.	2.1
pciDeviceAddress	String	The PCI device address.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
type	PciDeviceType	See type .	2.1
state	PciDeviceState	See state .	2.1

Name	Type	Description	Starting Version
status	PciDeviceStatus	See status .	2.1
virtStatus	PciDeviceVirtStatus	See virtStatus .	3.5.0
metaData	PciDeviceMetaData	See metadata .	2.1
matchedPciDeviceOfferingRef	List	See matchedPciDeviceOfferingRef .	2.1
mdevSpecRefs	List	See mdevSpecRefs .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	2.1
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	2.1
GPU_3D_Controller	PciDeviceType	The GPU 3D controller.	2.1
Moxa_Device	PciDeviceType	The MOXA card.	2.1
Generic	PciDeviceType	The general device.	2.1

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceState	The PCI device is enabled.	2.1
Disabled	PciDeviceState	The PCI device is disabled.	2.1

#status

Name	Type	Description	Starting Version
Active	PciDeviceStatus	The PCI device is active.	2.1
Attached	PciDeviceStatus	The PCI device is attached.	2.1

Name	Type	Description	Starting Version
System	PciDeviceStatus	The PCI device is managed by the system.	2.1

#virtStatus

Name	Type	Description	Starting Version
UNVIRTUALIZABLE	PciDeviceVirtStatus	Cannot be virtualized.	3.5.0
SRIOV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports SR-IOV.	3.5.0
VFIO_MDEV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports VFIO MDEV.	3.5.0
SRIOV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by SR-IOV.	3.5.0
VFIO_MDEV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by VFIO MDEV.	3.5.0
SRIOV_VIRTUAL	PciDeviceVirtStatus	The SR-IOV device.	3.5.0
UNKNOWN	PciDeviceVirtStatus	The status is unknown.	3.5.0

#metaData

Name	Type	Description	Starting Version
metaData	String		2.1
metaDataEntries	List	See metaDataEntries .	2.1

#metaDataEntries

Name	Type	Description	Starting Version
key	String	The key.	2.1
value	String	The value.	2.1
op	PciDeviceMetaDataOperator	See op .	2.1

#op

Name	Type	Description	Starting Version
Equal	PciDeviceMetaDataOperator	The equal operator.	2.1
Unequal	PciDeviceMetaDataOperator	The not equal operator.	2.1

#matchedPciDeviceOfferingRef

Name	Type	Description	Starting Version
pciDeviceUuid	String		2.1
pciDeviceOfferingUuid	String		2.1

#mdevSpecRefs

Name	Type	Description	Starting Version
pciDeviceUuid	String	The PCI device UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
effective	Boolean	Whether the current MDEV device specification is used to segment the PCI device.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

SDK Sample

Java SDK

```
QueryPciDeviceAction action = new QueryPciDeviceAction();
action.conditions = asList();
action.sessionId = "9895783acb8541c6938417b602429219";
QueryPciDeviceAction.Result res = action.call();
```

Python SDK

```
QueryPciDeviceAction action = QueryPciDeviceAction()
action.conditions = []
action.sessionId = "515d02b3a2094575beadbf3db7127880"
```

```
QueryPciDeviceAction.Result res = action.call()
```

5.2.3.42.2 UpdatePciDevice

API Request

URL

```
PUT zstack/v1/pci-device/pci-devices/{uuid}/actions
```

Header

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updatePciDevice": {
    "state": "Disabled",
    "description": "test pci",
    "metaData": "key1:value1;key2:value2"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updatePciDevice":{"state":"Disabled","description":"test pci","metaData":"key1:value1;key2:value2"}}' \
http://localhost:8080/zstack/v1/pci-device/pci-devices/4bec7e7c2c1e337599e0455165906fd5/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1
state	String	body (contained in the	Optional. The state.	- Enabled - Disabled	2.1

Name	Type	Location	Description	Optional Value	Starting Version
		updatePciDevice structure)			
description	String	body (contained in the updatePciDevice structure)	Optional. The detailed description of the resource.		2.1
metaData	String	body (contained in the updatePciDevice structure)	Optional. The metadata.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "inventory": {
    "description": "test pci",
    "hostUuid": "47c749c4520c3c5ba2ddcb6bf725cc40",
    "vmInstanceUuid": "8452e9231dd339158054902001b453d0",
    "status": "Active",
    "state": "Disabled",
    "type": "GPU_Video_Controller",
    "vendorId": "10de",
    "deviceId": "0e0f",
    "subvendorId": "10de",
    "subdeviceId": "118b",
    "metaData": {
      "metaData": "render:Equal:true;anime:Equal:true",
      "metaDataEntries": [
        {
          "key": "render",
          "op": "Equal",
          "value": "true"
        },
        {
          "key": "anime",
```



```

        "op": "Equal",
        "value": "true"
      }
    ],
  },
  "pciDeviceAddress": "0000:06:00.1"
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventory	PciDeviceInventory	See inventory .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	2.1
hostUuid	String	The host UUID.	2.1
parentUuid	String	The UUID of the physical PCI device.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	2.1
pciSpecUuid	String	The UUID of the PCI device specification.	3.5.0
vendorId	String	The vendor ID.	2.1
deviceId	String	The device ID.	2.1
subvendorId	String	The sub-vendor ID.	2.1
subdeviceId	String	The sub-device ID.	2.1
pciDeviceAddress	String	The PCI device address.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
type	PciDeviceType	See type .	2.1
state	PciDeviceState	See state .	2.1
status	PciDeviceStatus	See status .	2.1
virtStatus	PciDeviceVirtStatus	See virtStatus .	3.5.0
metaData	PciDeviceMetaData	See metadata .	2.1
matchedPciDeviceOfferingRef	List	See matchedPciDeviceOfferingRef .	2.1
mdevSpecRefs	List	See mdevSpecRefs .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	2.1
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	2.1
GPU_3D_Controller	PciDeviceType	The GPU 3D controller.	2.1
Moxa_Device	PciDeviceType	The MOXA card.	2.1
Generic	PciDeviceType	The general device.	2.1

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceState	The PCI device is enabled.	2.1
Disabled	PciDeviceState	The PCI device is disabled.	2.1

#status

Name	Type	Description	Starting Version
Active	PciDeviceStatus	The PCI device is active.	2.1
Attached	PciDeviceStatus	The PCI device is attached.	2.1
System	PciDeviceStatus	The PCI device is managed by the system.	2.1

#virtStatus

Name	Type	Description	Starting Version
UNVIRTUALIZABLE	PciDeviceVirtStatus	Cannot be virtualized.	3.5.0
SRIOV_VIRT UALIZABLE	PciDeviceVirtStatus	Supports SR-IOV.	3.5.0
VFIO_MDEV_ VIRTUALIZABLE	PciDeviceVirtStatus	Supports VFIO MDEV.	3.5.0

Name	Type	Description	Starting Version
SRIOV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by SR-IOV.	3.5.0
VFIO_MDEV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by VFIO MDEV.	3.5.0
SRIOV_VIRTUAL	PciDeviceVirtStatus	The SR-IOV device.	3.5.0
UNKNOWN	PciDeviceVirtStatus	The status is unknown.	3.5.0

#metaData

Name	Type	Description	Starting Version
metaData	String		2.1
metaDataEntries	List	See metaDataEntries .	2.1

#metaDataEntries

Name	Type	Description	Starting Version
key	String	The key.	2.1
value	String	The value.	2.1
op	PciDeviceMetadataOperator	See op .	2.1

#op

Name	Type	Description	Starting Version
Equal	PciDeviceMetadataOperator	The equal operator.	2.1
Unequal	PciDeviceMetadataOperator	The not equal operator.	2.1

#matchedPciDeviceOfferingRef

Name	Type	Description	Starting Version
pciDeviceUuid	String		2.1
pciDeviceOfferingUuid	String		2.1

#mdevSpecRefs

Name	Type	Description	Starting Version
pciDeviceUuid	String	The PCI device UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
effective	Boolean	Whether the current MDEV device specification is used to segment the PCI device.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

SDK Sample

Java SDK

```
UpdatePciDeviceAction action = new UpdatePciDeviceAction();
action.uuid = "4bec7e7c2c1e337599e0455165906fd5";
action.state = "Disabled";
action.description = "test pci";
action.metadata = "key1:value1;key2:value2";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdatePciDeviceAction.Result res = action.call();
```

Python SDK

```
UpdatePciDeviceAction action = UpdatePciDeviceAction()
action.uuid = "4bec7e7c2c1e337599e0455165906fd5"
action.state = "Disabled"
action.description = "test pci"
action.metadata = "key1:value1;key2:value2"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdatePciDeviceAction.Result res = action.call()
```

5.2.3.42.3 DeletePciDevice

API Request

URLs

```
DELETE zstack/v1/pci-device/pci-devices/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e48a9a18b86946af89ad991945942f6c" \
-X DELETE http://localhost:8080/zstack/v1/pci-device/pci-devices/
eae6d78d9ae344bab2c32028bea20f0?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1
deleteMode	String	url	Optional. The delete mode.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeletePciDeviceAction action = new DeletePciDeviceAction();
action.uuid = "435ae2ba1b3948a68835af0134ab8a97";
action.deleteMode = "Permissive";
action.sessionId = "c9e0d2c1a0614733854d12cb9670b475";
DeletePciDeviceAction.Result res = action.call();
```

Python SDK

```
DeletePciDeviceAction action = DeletePciDeviceAction()
action.uuid = "5ab09caf016345adad9ee77462da8acf"
action.deleteMode = "Permissive"
action.sessionId = "f048bfdfbdad403b9e2223a0d8b96bc6"
DeletePciDeviceAction.Result res = action.call()
```

5.2.3.42.4 GetPciDeviceCandidatesForAttachingVm

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceUuid}/candidate-pci-devices
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 3ac79a27693a48bda0c56e1a1ee3c4f6" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/30f116d6602248249266776f279ef674/candidate-pci-devices
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		2.1
systemTags	List	query	Optional. The system tags.		2.1

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		2.1
types	List	query	Optional. The types.		2.1

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "99bc47cf68e340a1b0a85c874637ec7b",
      "hostUuid": "f853669ede9c4699bdf97e30d91235b",
      "status": "Attached",
      "type": "GPU_Video_Controller",
      "vendorId": "10de",
      "deviceId": "0e0f",
      "subvendorId": "10de",
      "subdeviceId": "118b",
      "pciDeviceAddress": "0000:06:00.1"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6
error	ErrorCode	See error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	2.1
hostUuid	String	The host UUID.	2.1
parentUuid	String	The UUID of the physical PCI device.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	2.1
pciSpecUuid	String	The UUID of the PCI device specification.	3.5.0
vendorId	String	The vendor ID.	2.1
deviceId	String	The device ID.	2.1
subvendorId	String	The sub-vendor ID.	2.1
subdeviceId	String	The sub-device ID.	2.1

Name	Type	Description	Starting Version
pciDeviceAddress	String	The PCI device address.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
type	PciDeviceType	See type .	2.1
state	PciDeviceState	See state .	2.1
status	PciDeviceStatus	See status .	2.1
virtStatus	PciDeviceVirtStatus	See virtStatus .	3.5.0
metaData	PciDeviceMetaData	See metadata .	2.1
matchedPciDeviceOfferingRef	List	See matchedPciDeviceOfferingRef .	2.1
mdevSpecRefs	List	See mdevSpecRefs .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	2.1
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	2.1
GPU_3D_Controller	PciDeviceType	The GPU 3D controller.	2.1
Moxa_Device	PciDeviceType	The MOXA card.	2.1
Generic	PciDeviceType	The general device.	2.1

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceState	The PCI device is enabled.	2.1
Disabled	PciDeviceState	The PCI device disabled.	2.1

#status

Name	Type	Description	Starting Version
Active	PciDeviceStatus	The PCI device is active.	2.1
Attached	PciDeviceStatus	The PCI device is attached.	2.1
System	PciDeviceStatus	The PCI device is managed by the system.	2.1

#virtStatus

Name	Type	Description	Starting Version
UNVIRTUALIZABLE	PciDeviceVirtStatus	Cannot be virtualized.	3.5.0
SRIOV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports SR-IOV.	3.5.0
VFIO_MDEV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports VFIO MDEV.	3.5.0
SRIOV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by SR-IOV.	3.5.0
VFIO_MDEV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by VFIO MDEV.	3.5.0
SRIOV_VIRTUAL	PciDeviceVirtStatus	The SR-IOV device.	3.5.0
UNKNOWN	PciDeviceVirtStatus	The status is unknown.	3.5.0

#metaData

Name	Type	Description	Starting Version
metaData	String		2.1
metaDataEntries	List	See metaDataEntries .	2.1

#metaDataEntries

Name	Type	Description	Starting Version
key	String	The key.	2.1
value	String	The value.	2.1

Name	Type	Description	Starting Version
op	PciDeviceMetadataOperator	See op .	2.1

#op

Name	Type	Description	Starting Version
Equal	PciDeviceMetadataOperator	The equal operator.	2.1
Unequal	PciDeviceMetadataOperator	The not equal operator.	2.1

#matchedPciDeviceOfferingRef

Name	Type	Description	Starting Version
pciDeviceUuid	String		2.1
pciDeviceOfferingUuid	String		2.1

#mdevSpecRefs

Name	Type	Description	Starting Version
pciDeviceUuid	String	The PCI device UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
effective	Boolean	Whether the current MDEV device specification is used to segment the PCI device.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	0.6

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetPciDeviceCandidatesForAttachingVmAction action = new GetPciDeviceCandidatesForAttachingVmAction();
action.vmInstanceUuid = "178ad6dd410d4f75a5b956c6f9525603";
action.sessionId = "865b02dddee54fdea331471b5c266728";
GetPciDeviceCandidatesForAttachingVmAction.Result res = action.call();
```

Python SDK

```
GetPciDeviceCandidatesForAttachingVmAction action = GetPciDeviceCandidatesForAttachingVmAction()
action.vmInstanceUuid = "0b89549b899d4e0ca421c443df97132f"
action.sessionId = "675223f565f747229d25c72354f866bb"
```

```
GetPciDeviceCandidatesForAttachingVmAction.Result res = action.call()
```

5.2.3.42.5 GetPciDeviceCandidatesForNewCreateVm

API Request

URLs

```
GET zstack/v1/pci-device/candidate-pci-devices-for-new-create-vm
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/pci-device/candidate-pci-devices-for-new-create-vm?hostUuid=3376aee6af913e278a1a6aafc28c2e94
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostUuid	String	query	Optional. The host UUID.		2.4
clusterUuids	List	query	Optional. The cluster UUIDs.		2.4
types	List	query	Optional. The types.		2.4
systemTags	List	query	Optional. The system tags.		2.4
userTags	List	query	Optional. The user tags.		2.4

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "1d2d54391e4d303cbf12543508b208ba",

```

```

    "hostUuid": "d98a93185af134fda630723444fd49d4",
    "status": "Attached",
    "type": "GPU_Video_Controller",
    "vendorId": "10de",
    "deviceId": "0e0f",
    "subvendorId": "10de",
    "subdeviceId": "118b",
    "pciDeviceAddress": "0000:06:00.1"
  }
]
}

```

Name	Type	Description	Starting Version
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6
error	ErrorCode	See error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	2.1
hostUuid	String	The host UUID.	2.1
parentUuid	String	The UUID of the physical PCI device.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	2.1
pciSpecUuid	String	The UUID of the PCI device specification.	3.5.0
vendorId	String	The vendor ID.	2.1
deviceId	String	The device ID.	2.1
subvendorId	String	The sub-vendor ID.	2.1
subdeviceId	String	The sub-device ID.	2.1
pciDeviceAddress	String	The PCI device address.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
type	PciDeviceType	See type .	2.1
state	PciDeviceState	See state .	2.1
status	PciDeviceStatus	See status .	2.1
virtStatus	PciDeviceVirtStatus	See virtStatus .	3.5.0
metaData	PciDeviceMetaData	See metaData .	2.1
matchedPciDeviceOfferingRef	List	See matchedPciDeviceOfferingRef .	2.1

Name	Type	Description	Starting Version
mdevSpecRefs	List	See mdevSpecRefs .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	2.1
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	2.1
GPU_3D_Controller	PciDeviceType	The GPU 3D controller.	2.1
Moxa_Device	PciDeviceType	The MOXA card.	2.1
Generic	PciDeviceType	The general device.	2.1

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceState	The PCI device is enabled.	2.1
Disabled	PciDeviceState	The PCI device is disabled.	2.1

#status

Name	Type	Description	Starting Version
Active	PciDeviceStatus	The PCI device is active.	2.1
Attached	PciDeviceStatus	The PCI device is attached.	2.1
System	PciDeviceStatus	The PCI device is managed by the system.	2.1

#virtStatus

Name	Type	Description	Starting Version
UNVIRTUALIZABLE	PciDeviceVirtStatus	Cannot be virtualized.	3.5.0

Name	Type	Description	Starting Version
SRIOV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports SR-IOV.	3.5.0
VFIO_MDEV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports VFIO MDEV.	3.5.0
SRIOV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by SR-IOV.	3.5.0
VFIO_MDEV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by VFIO MDEV.	3.5.0
SRIOV_VIRTUAL	PciDeviceVirtStatus	The SR-IOV device.	3.5.0
UNKNOWN	PciDeviceVirtStatus	The status is unknown.	3.5.0

#metaData

Name	Type	Description	Starting Version
metaData	String		2.1
metaDataEntries	List	See metaDataEntries .	2.1

#metaDataEntries

Name	Type	Description	Starting Version
key	String	The key.	2.1
value	String	The value.	2.1
op	PciDeviceMetaDataOperator	See op .	2.1

#op

Name	Type	Description	Starting Version
Equal	PciDeviceMetaDataOperator	The equal operator.	2.1
Unequal	PciDeviceMetaDataOperator	The not equal operator.	2.1

#matchedPciDeviceOfferingRef

Name	Type	Description	Starting Version
pciDeviceUuid	String		2.1
pciDeviceOfferingUuid	String		2.1

#mdevSpecRefs

Name	Type	Description	Starting Version
pciDeviceUuid	String	The PCI device UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
effective	Boolean	Whether the current MDEV device specification is used to segment the PCI device.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetPciDeviceCandidatesForNewCreateVmAction action = new GetPciDeviceCandidatesForNewCreateVmAction();
action.hostUuid = "3376aee6af913e278a1a6aafc28c2e94";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetPciDeviceCandidatesForNewCreateVmAction.Result res = action.call();
```

Python SDK

```
GetPciDeviceCandidatesForNewCreateVmAction action = GetPciDeviceCandidatesForNewCreateVmAction()
action.hostUuid = "3376aee6af913e278a1a6aafc28c2e94"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetPciDeviceCandidatesForNewCreateVmAction.Result res = action.call()
```

5.2.3.42.6 AttachPciDeviceToVm

API Request

URLs

```
POST zstack/v1/pci-device/pci-devices/{pciDeviceUuid}/attach
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmInstanceUuid": "ea787ebae18f4e668e5962fd7db982a3"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vmInstanceUuid":"d3f41f8b996b390992cc4607e7bb10dc"}}' \
http://localhost:8080/zstack/v1/pci-device/pci-
devices/201b541edbed3dccbebf57b3beb9bb/attach
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pciDeviceUuid	String	url	The PCI device UUID.		2.1
vmInstance Uuid	String	body (contained in the params structure)	The VM instance UUID.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "4d0454694e264b2cafaa2adfd3e48602",
    "hostUuid": "b17bee8ff0814edc9661a65b281d2d78",
    "vmInstanceUuid": "ca4f71e2328f4f06b78d5b7255342dde",
    "status": "Attached",
    "type": "GPU_Video_Controller",
    "vendorId": "10de",
    "deviceId": "0e0f",
    "subvendorId": "10de",
    "subdeviceId": "118b",
    "pciDeviceAddress": "0000:06:00.1"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventory	PciDeviceInventory	See inventory .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1

Name	Type	Description	Starting Version
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	2.1
hostUuid	String	The host UUID.	2.1
parentUuid	String	The UUID of the physical PCI device.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	2.1
vendorId	String	The vendor ID.	2.1
pciSpecUuid	String	The UUID of the PCI device specification.	3.5.0
deviceId	String	The device ID.	2.1
subvendorId	String	The sub-vendor ID.	2.1
subdeviceId	String	The sub-device ID.	2.1
pciDeviceAddress	String	The PCI device address.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
status	PciDeviceStatus	See status .	2.1
state	PciDeviceState	See state .	2.1
type	PciDeviceType	See type .	2.1
virtStatus	PciDeviceVirtStatus	See virtStatus .	3.5.0
metaData	PciDeviceMetaData	See metaData .	2.1
matchedPciDeviceOfferingRef	List	See matchedPciDeviceOfferingRef .	2.1
mdevSpecRefs	List	See mdevSpecRefs .	3.5.0

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceState	The PCI device is enabled.	2.1

Name	Type	Description	Starting Version
Disabled	PciDeviceState	The PCI device is disabled.	2.1

#status

Name	Type	Description	Starting Version
Active	PciDeviceStatus	The PCI device is active.	2.1
Attached	PciDeviceStatus	The PCI device is active.	2.1
System	PciDeviceStatus	The PCI device is managed by the system.	2.1

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	2.1
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	2.1
GPU_3D_Controller	PciDeviceType	The GPU 3D controller.	2.1
Moxa_Device	PciDeviceType	The MOXA card.	2.1
Generic	PciDeviceType	The general device.	2.1

#virtStatus

Name	Type	Description	Starting Version
UNVIRTUALIZABLE	PciDeviceVirtStatus	Cannot be virtualized.	3.5.0
SRIOV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports SR-IOV.	3.5.0
VFIO_MDEV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports VFIO MDEV.	3.5.0
SRIOV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by SR-IOV.	3.5.0

Name	Type	Description	Starting Version
VFIO_MDEV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by VFIO MDEV.	3.5.0
SRIOV_VIRTUAL	PciDeviceVirtStatus	The SR-IOV device.	3.5.0
UNKNOWN	PciDeviceVirtStatus	The status is unknown.	3.5.0

#metaData

Name	Type	Description	Starting Version
metaData	String		2.1
metaDataEntries	List	See metaDataEntries .	2.1

#metaDataEntries

Name	Type	Description	Starting Version
key	String		2.1
value	String		2.1
op	PciDeviceMetaDataOperator	See op .	2.1

#op

Name	Type	Description	Starting Version
Equal	PciDeviceMetaDataOperator	The equal operator.	2.1
Unequal	PciDeviceMetaDataOperator	The not equal operator.	2.1

#matchedPciDeviceOfferingRef

Name	Type	Description	Starting Version
pciDeviceUuid	String		2.1
pciDeviceOfferingUuid	String		2.1

#mdevSpecRefs

Name	Type	Description	Starting Version
pciDeviceUuid	String	The PCI device UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
effective	Boolean	Whether the current MDEV device specification is used to segment the PCI device.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

SDK Sample

Java SDK

```
AttachPciDeviceToVmAction action = new AttachPciDeviceToVmAction();
action.pciDeviceUuid = "201b541edbed3dccbebf57b3beb9bb";
action.vmInstanceUuid = "d3f41f8b996b390992cc4607e7bb10dc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachPciDeviceToVmAction.Result res = action.call();
```

Python SDK

```
AttachPciDeviceToVmAction action = AttachPciDeviceToVmAction()
action.pciDeviceUuid = "201b541edbed3dccbebf57b3beb9bb"
action.vmInstanceUuid = "d3f41f8b996b390992cc4607e7bb10dc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachPciDeviceToVmAction.Result res = action.call()
```

5.2.3.42.7 DetachPciDeviceFromVm

API Request

URLs

```
POST zstack/v1/pci-device/pci-devices/{pciDeviceUuid}/detach
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
```

```

"params": {
  "vmInstanceUuid": "3603d1324fdd4393b62f5bc21e558eef"
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params": {
  "vmInstanceUuid": "42d2fcfc217f38faa02035132e7b4b16"}}' \
http://localhost:8080/zstack/v1/pci-device/pci-devices/
f44964a4252a3de3a435d2ab04bb9fb8/detach

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pciDeviceUuid	String	url			2.1
vmInstance Uuid	String	body (contained in the params structure)	The VM instance UUID .		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response**Sample Response**

```

{
  "inventory": {
    "uuid": "3b1256e08a6544f4abe7de5b9ea81970",
    "hostUuid": "056dbc6f8170409a953c120a16a87d18",
    "status": "Active",
    "type": "GPU_Video_Controller",
    "vendorId": "10de",
    "deviceId": "0e0f",
    "subvendorId": "10de",
    "subdeviceId": "118b",

```

```

    "pciDeviceAddress": "0000:06:00.1"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventory	PciDeviceInventory	See inventory .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1

Name	Type	Description	Starting Version
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	2.1
hostUuid	String	The host UUID.	2.1
parentUuid	String	The UUID of the physical PCI device.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	2.1
pciSpecUuid	String	The UUID of the PCI device specification.	3.5.0
vendorId	String	The vendor ID.	2.1
deviceId	String	The device ID.	2.1
subvendorId	String	The sub-vendor ID.	2.1
subdeviceId	String	The sub-device ID.	2.1
pciDeviceAddress	String	The PCI device address.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
type	PciDeviceType	See type .	2.1
state	PciDeviceState	See state .	2.1
status	PciDeviceStatus	See status .	2.1
virtStatus	PciDeviceVirtStatus	See virtStatus .	3.5.0
metaData	PciDeviceMetaData	See metaData .	2.1
matchedPciDeviceOfferingRef	List	See matchedPciDeviceOfferingRef .	2.1
mdevSpecRefs	List	See mdevSpecRefs .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	2.1

Name	Type	Description	Starting Version
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	2.1
GPU_3D_Controller	PciDeviceType	The GPU 3D controller.	2.1
Moxa_Device	PciDeviceType	The MOXA card.	2.1
Generic	PciDeviceType	The general device.	2.1

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceState	The PCI device is enabled.	2.1
Disabled	PciDeviceState	The PCI device is disabled.	2.1

#status

Name	Type	Description	Starting Version
Active	PciDeviceStatus	The PCI device is active.	2.1
Attached	PciDeviceStatus	The PCI device is attached.	2.1
System	PciDeviceStatus	The PCI device is managed by the system.	2.1

#virtStatus

Name	Type	Description	Starting Version
UNVIRTUALIZABLE	PciDeviceVirtStatus	Cannot be virtualized.	3.5.0
SRIOV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports SR-IOV.	3.5.0
VFIO_MDEV_VIRTUALIZABLE	PciDeviceVirtStatus	Supports VFIO MDEV.	3.5.0
SRIOV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by SR-IOV.	3.5.0

Name	Type	Description	Starting Version
VFIO_MDEV_VIRTUALIZED	PciDeviceVirtStatus	Has been virtualized by VFIO MDEV.	3.5.0
SRIOV_VIRTUAL	PciDeviceVirtStatus	The SR-IOV device.	3.5.0
UNKNOWN	PciDeviceVirtStatus	The status is unknown.	3.5.0

#metaData

Name	Type	Description	Starting Version
metaData	String		2.1
metaDataEntries	List	See metaDataEntries .	2.1

#metaDataEntries

Name	Type	Description	Starting Version
key	String	The key.	2.1
value	String	The value.	2.1
op	PciDeviceMetaDataOperator	See op .	2.1

#op

Name	Type	Description	Starting Version
Equal	PciDeviceMetaDataOperator	The equal operator.	2.1
Unequal	PciDeviceMetaDataOperator	The not equal operator.	2.1

#matchedPciDeviceOfferingRef

Name	Type	Description	Starting Version
pciDeviceUuid	String		2.1
pciDeviceOfferingUuid	String		2.1

#mdevSpecRefs

Name	Type	Description	Starting Version
pciDeviceUuid	String	The PCI device UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
effective	Boolean	Whether the current MDEV device specification is used to segment the PCI device.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

SDK Sample

Java SDK

```
DetachPciDeviceFromVmAction action = new DetachPciDeviceFromVmAction
();
action.pciDeviceUuid = "f44964a4252a3de3a435d2ab04bb9fb8";
action.vmInstanceUuid = "42d2fcfc217f38faa02035132e7b4b16";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachPciDeviceFromVmAction.Result res = action.call();
```

Python SDK

```
DetachPciDeviceFromVmAction action = DetachPciDeviceFromVmAction()
action.pciDeviceUuid = "60f04d2b75944c27a6922abb8e307a28"
action.vmInstanceUuid = "72ff58a5d24e40299ed9eda91a683be2"
action.sessionId = "4404fdf219e94d7ab37b48c4950fd26d"
```



```
DetachPciDeviceFromVmAction.Result res = action.call()
```

5.2.3.42.8 CreatePciDeviceOffering

API Request

URLs

```
POST zstack/v1/pci-device/pci-device-offerings
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "test",
    "vendorId": "10de",
    "deviceId": "0e0f"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"test","vendorId":"10de","deviceId":"0e0f"}}' \
http://localhost:8080/zstack/v1/pci-device/pci-device-offerings
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	Optional. The resource name.		2.1
description	String	body (contained in	Optional. The detailed		2.1

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	description of the resource.		
type	String	body (contained in the params structure)	Optional. The type.		2.1
vendorId	String	body (contained in the params structure)	The vendor ID.		2.1
deviceId	String	body (contained in the params structure)	The device ID.		2.1
subvendorId	String	body (contained in the params structure)	Optional. The sub-vendor ID.		2.1
subdeviceId	String	body (contained in the params structure)	Optional. The sub-device ID.		2.1
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "inventory": {
    "type": "GPU_Video",
    "vendorId": "10de",
```

```

    "deviceId": "0e0f",
    "subvendorId": "10de",
    "subdeviceId": "118b"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventory	PciDeviceOfferingInventory	See inventory .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
name	String	The resource name.	2.1
description	String	The detailed description of the resource.	2.1
vendorId	String		2.1
deviceId	String		2.1
subvendorId	String		2.1
subdeviceId	String		2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
type	PciDeviceOfferingType	See type .	2.1
attachedInstanceOfferings	List	See attachedInstanceOfferings .	2.1
matchedPciDevices	List	See matchedPciDevices .	2.1

#type

Name	Type	Description	Starting Version
type	String	The type, which is a reserved field.	2.1

#attachedInstanceOfferings

Name	Type	Description	Starting Version
id	long		2.1
instanceOfferingUuid	String	The instance offering UUID.	2.1
pciDeviceOfferingUuid	String		2.1
pciDeviceCount	Integer		2.1
metadata	PciDeviceMetaData	See metadata .	2.1

#metadata

Name	Type	Description	Starting Version
metaData	String		2.1
metaDataEntries	List	See metaDataEntries .	2.1

#metaDataEntries

Name	Type	Description	Starting Version
key	String		2.1
value	String		2.1
op	PciDeviceMetadataOperator	See op .	2.1

#op

Name	Type	Description	Starting Version
Equal	PciDeviceMetadataOperator	The equal operator.	2.1
Unequal	PciDeviceMetadataOperator	The not equal operator.	2.1

#matchedPciDevices

Name	Type	Description	Starting Version
pciDeviceUuid	String		2.1
pciDeviceOfferingUuid	String		2.1

SDK Sample

Java SDK

```
CreatePciDeviceOfferingAction action = new CreatePciDeviceOfferingAction();
action.name = "test";
action.vendorId = "10de";
action.deviceId = "0e0f";
action.sessionId = "0cb0086840314456812971957614aa63";
CreatePciDeviceOfferingAction.Result res = action.call();
```

Python SDK

```
CreatePciDeviceOfferingAction action = CreatePciDeviceOfferingAction()
```

```

action.name = "test"
action.vendorId = "10de"
action.deviceId = "0e0f"
action.sessionId = "b2dcf8abb771429f8f2484d0f4df428d"
CreatePciDeviceOfferingAction.Result res = action.call()

```

5.2.3.42.9 DeletePciDeviceOffering

API Request

URLs

```

DELETE zstack/v1/pci-device/pci-device-offerings/{uuid}?
deleteMode={deleteMode}

```

Headers

```

Authorization: OAuth the-session-uuid

```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/pci-device/pci-device-
offerings/900f2eefdec630c68313eb025123375d?deleteMode=Permissive

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1
deleteMode	String	url	Optional. The delete mode.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",

```

```

    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```

DeletePciDeviceOfferingAction action = new DeletePciDeviceOfferingAction();
action.uuid = "f47d555477e645af9a8817ce00b98b9d";
action.deleteMode = "Permissive";
action.sessionId = "c6809b8d823a4be484b82d03083a9ed0";
DeletePciDeviceOfferingAction.Result res = action.call();

```

Python SDK

```

DeletePciDeviceOfferingAction action = DeletePciDeviceOfferingAction()
action.uuid = "d5458c1007774c16aa0ae771056172ca"
action.deleteMode = "Permissive"
action.sessionId = "99e57c0e1caf44929feb35de6cd90605"
DeletePciDeviceOfferingAction.Result res = action.call()

```

5.2.3.42.10 QueryPciDeviceOffering

API Request

URLs

```

GET zstack/v1/pci-device/pci-device-offerings
GET zstack/v1/pci-device/pci-device-offerings/{uuid}

```

Headers

```

Authorization: OAuth the-session-uuid

```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 0356dc4f75ac4798817b29d957ccb4bc" \
-X GET http://localhost:8080/zstack/v1/pci-device/pci-device-offerings

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 159ccf53b07a4b97ba3ea07dcf385f34" \
-X GET http://localhost:8080/zstack/v1/pci-device/pci-device-offerings/a43387ea19d84cecb328c34af59f6292

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryPciDeviceOffering`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {}
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventories	List	See inventories .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
name	String	The resource name.	2.1
description	String	The detailed description of the resource.	2.1
vendorId	String		2.1
deviceId	String		2.1
subvendorId	String		2.1
subdeviceId	String		2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
type	PciDeviceOfferingType	See type .	2.1
attachedInstanceOfferings	List	See attachedInstanceOfferings .	2.1
matchedPciDevices	List	See matchedPciDevices .	2.1

#type

Name	Type	Description	Starting Version
type	String	The type, which is a reserved field.	2.1

#attachedInstanceOfferings

Name	Type	Description	Starting Version
id	long		2.1
instanceOfferingUuid	String	The instance offering UUID.	2.1
pciDeviceOfferingUuid	String		2.1
pciDeviceCount	Integer		2.1
metadata	PciDeviceMetaData	See metadata .	2.1

#metadata

Name	Type	Description	Starting Version
metaData	String		2.1
metaDataEntries	List	See metaDataEntries .	2.1

#metaDataEntries

Name	Type	Description	Starting Version
key	String		2.1
value	String		2.1
op	PciDeviceMetadataOperator	See op .	2.1

#op

Name	Type	Description	Starting Version
Equal	PciDeviceMetadataOperator	The equal operator.	2.1
Unequal	PciDeviceMetadataOperator	The not equal operator.	2.1

#matchedPciDevices

Name	Type	Description	Starting Version
pciDeviceUuid	String		2.1
pciDeviceOfferingUuid	String		2.1

SDK Sample

Java SDK

```
QueryPciDeviceOfferingAction action = new QueryPciDeviceOfferingAction();
action.conditions = asList();
action.sessionId = "fa91fe0f572c4ac1bcc975572985eed9";
QueryPciDeviceOfferingAction.Result res = action.call();
```

Python SDK

```
QueryPciDeviceOfferingAction action = QueryPciDeviceOfferingAction()
action.conditions = []
action.sessionId = "c194660b515f48c98b469f591cdfe5a2"
```

```
QueryPciDeviceOfferingAction.Result res = action.call()
```

5.2.3.42.11 QueryPciDevicePciDeviceOffering

API Request

URLs

```
GET zstack/v1/pci-devices/pci-devices/pci-device-offerings
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b4f4b13d193c4db9890eb1e5e055341a" \
-X GET http://localhost:8080/zstack/v1/pci-devices/pci-devices/pci-device-offerings
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryPciDevicePciDeviceOffering`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {}
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventories	List	See inventories .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#inventories

Name	Type	Description	Starting Version
pciDeviceUuid	String		2.1
pciDeviceOfferingUuid	String		2.1

SDK Sample

Java SDK

```
QueryPciDevicePciDeviceOfferingAction action = new QueryPciDevicePciDeviceOfferingAction();
action.conditions = asList();
action.sessionId = "31a0eed2b439493997c448262d1ebc38";
QueryPciDevicePciDeviceOfferingAction.Result res = action.call();
```

Python SDK

```
QueryPciDevicePciDeviceOfferingAction action = QueryPciDevicePciDeviceOfferingAction()
action.conditions = []
```

```
action.sessionId = "0dce1b66e4584dce83137f266aae1200"  
QueryPciDevicePciDeviceOfferingActionResult res = action.call()
```

5.2.3.42.12 GetHostlomuStatus

API Request

URLs

```
GET zstack/v1/pci-device/hosts/status/uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth 5dd20f6d5e414a15a8923f349758b5ff" \  
-X GET http://localhost:8080/zstack/v1/pci-device/hosts/status/uuid}?  
uuid=fcc8d4defb1e4064907636e7cf0ed885
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	query	The resource UUID.		2.1
systemTags	List	query	Optional. The system tags.		2.1
userTags	List	query	Optional. The user tags.		2.1

API Response

Sample Response

```
{  
  "status": "Active"  
}
```

Name	Type	Description	Starting Version
success	boolean		2.1
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	2.1

Name	Type	Description	Starting Version
		more information, see error .	
status	HostIommuStatusType	See status .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#status

Name	Type	Description	Starting Version
name	String	The resource name.	2.1
ordinal	int		2.1

SDK Sample

Java SDK

```
GetHostIommuStatusAction action = new GetHostIommuStatusAction();
```

```
action.uuid = "78e175a479124efeb8182c00a854a05d";
action.sessionId = "8b8cba1389204acb8d56fbed1dad8458";
GetHostIommuStatusAction.Result res = action.call();
```

Python SDK

```
GetHostIommuStatusAction action = GetHostIommuStatusAction()
action.uuid = "7a446ba1cfe644f09fc454d7b32c6f4d"
action.sessionId = "c44236d523584717974407c5e972e7fc"
GetHostIommuStatusAction.Result res = action.call()
```

5.2.3.42.13 UpdateHostIommuState

API Request

URLs

```
PUT zstack/v1/pci-device/hosts/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateHostIommuState": {
    "state": "Enabled"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateHostIommuState":{"state":"Enabled"}}' \
http://localhost:8080/zstack/v1/pci-device/
hosts/7619742c9ff43b898487db33e1f096a4/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1
state	String	body (contained in the updateHostlommelmuState structure)		• Enabled • Disabled	2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "state": "Enabled"
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
state	HostlommelmuStateType	See state .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#state

Name	Type	Description	Starting Version
HostIommuState	String	The host IOMMU state, including: • Enabled • Disabled	2.1

SDK Sample

Java SDK

```
UpdateHostIommuStateAction action = new UpdateHostIommuStateAction();
action.uuid = "30bc8157b4894ceb9be0387248febb72";
action.state = "Enabled";
action.sessionId = "c06ce6f86c10486f891ec7aab3896865";
UpdateHostIommuStateAction.Result res = action.call();
```

Python SDK

```
UpdateHostIommuStateAction action = UpdateHostIommuStateAction()
action.uuid = "53ad6ee9424148e8894c305370a1a9ba"
action.state = "Enabled"
action.sessionId = "f04fcfb3bfe3438aa56dd43e87202f04"
```

```
UpdateHostIommuStateAction.Result res = action.call()
```

5.2.3.42.14 GetHostIommuState

API Request

URLs

```
GET zstack/v1/pci-device/hosts/state/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 637890e6fd754515a256c9c105d5c1c7" \
-X GET http://localhost:8080/zstack/v1/pci-device/hosts/
state/904c207877bd4c20a4fc6811ec8cd808
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1
systemTags	List	query	Optional. The system tags.		2.1
userTags	List	query	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "state": "Enabled"
}
```

Name	Type	Description	Starting Version
success	boolean		2.1
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	2.1

Name	Type	Description	Starting Version
		more information, see error .	
state	HostIommuStateType	See state .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.1
ordinal	int		2.1

SDK Sample

Java SDK

```
GetHostIommuStateAction action = new GetHostIommuStateAction();
```

```
action.uuid = "5e615f4d46784d72a8e0d7895123298e";
action.sessionId = "e7fd08c2494d401dadfa7d08649d0d09";
GetHostIommuStateAction.Result res = action.call();
```

Python SDK

```
GetHostIommuStateAction action = GetHostIommuStateAction()
action.uuid = "c05c88f401074402bed2531c23424ae0"
action.sessionId = "4e3f9322969f4cb394d22a3d6dc4f89b"
GetHostIommuStateAction.Result res = action.call()
```

5.2.3.42.15 AddPciDeviceSpecToVmInstance

API Request

URLs

```
POST zstack/v1/pci-device-specs/{pciSpecUuid}/vm-instances/
{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "pciDeviceNumber": 1.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"pciDeviceNumber":1.0}}'
http://localhost:8080/zstack/v1/pci-device-
specs/ace129cb77d93012bf47f839b9429881/vm-
instances/16ecb900082437e8aaf554ce19620030
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pciSpecUuid	String	url	The UUID of the PCI device specification.		3.5.0
vmInstanceUuid	String	url	The VM instance UUID.		3.5.0
pciDeviceNumber	Integer	body (contained in the params structure)	Optional. The number of PCI devices.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventory": {
    "vmInstanceUuid": "ed0836204dbd496bb9cfa25f091d9d4a",
    "pciSpecUuid": "f9e3605232d343d99bca77ba13c1ca34",
    "pciDeviceNumber": 1.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventory	VmInstance PciDeviceSpecRefInventry	See inventory .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventory

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	3.5.0
pciSpecUuid	String	The UUID of the PCI device specification.	3.5.0
pciDeviceNumber	Integer	The number of PCI devices to be attached to the VM instance . Note that these devices must conform to the PCI device specification. Default value: 1.	3.5.0
createDate	Timestamp	The creation date.	3.5.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.5.0

SDK Sample

Java SDK

```
AddPciDeviceSpecToVmInstanceAction action = new AddPciDeviceSpecToVmInstanceAction();
action.pciSpecUuid = "ace129cb77d93012bf47f839b9429881";
action.vmInstanceUuid = "16ecb900082437e8aaf554ce19620030";
action.pciDeviceNumber = 1.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddPciDeviceSpecToVmInstanceAction.Result res = action.call();
```

Python SDK

```
AddPciDeviceSpecToVmInstanceAction action = AddPciDeviceSpecToVmInstanceAction()
action.pciSpecUuid = "ace129cb77d93012bf47f839b9429881"
action.vmInstanceUuid = "16ecb900082437e8aaf554ce19620030"
action.pciDeviceNumber = 1.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddPciDeviceSpecToVmInstanceAction.Result res = action.call()
```

5.2.3.42.16 RemovePciDeviceSpecFromVmInstance

API Request

URLs

```
DELETE zstack/v1/pci-device-specs/{pciSpecUuid}/vm-instances/{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/pci-device-specs/1c8f91c1699c35bfbb1847d2c20f7371/vm-instances/422fe51c278930f085e1323b0e858e3f?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pciSpecUuid	String	url	The UUID of the PCI device specification.		3.5.0
vmInstanceUuid	String	url	The VM instance UUID.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemovePciDeviceSpecFromVmInstanceAction action = new RemovePciDeviceSpecFromVmInstanceAction();
action.pciSpecUuid = "1c8f91c1699c35bfbb1847d2c20f7371";
action.vmInstanceUuid = "422fe51c278930f085e1323b0e858e3f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemovePciDeviceSpecFromVmInstanceAction.Result res = action.call();
```

Python SDK

```
RemovePciDeviceSpecFromVmInstanceAction action = RemovePciDeviceSpecFromVmInstanceAction()
action.pciSpecUuid = "1c8f91c1699c35bfbb1847d2c20f7371"
action.vmInstanceUuid = "422fe51c278930f085e1323b0e858e3f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
RemovePciDeviceSpecFromVmInstanceAction.Result res = action.call()
```

5.2.3.42.17 UpdatePciDeviceSpec

API Request

URLs

```
PUT zstack/v1/pci-device-specs/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updatePciDeviceSpec": {
    "name": "MSI_GTX1060",
    "description": "NVIDIA Corporation, GP106 [GeForce GTX 1060 6GB],
a1, VGA compatible controller",
    "romContent": "*BASE64 ENCODED ROM CONTENT*",
    "romVersion": "86.06.0E.00.29",
    "abandonSpecRom": false,
    "state": "Enabled"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updatePciDeviceSpec":
{"name":"MSI_GTX1060","description":"NVIDIA Corporation,
GP106 [GeForce GTX 1060 6GB], a1, VGA compatible
controller","romContent":"*BASE64 ENCODED ROM
CONTENT*","romVersion":"86.06.0E.00.29","abandonSpecRom":false,"state":"Enabled"}'
http://localhost:8080/zstack/v1/pci-device-
specs/78ba2350be1e451597c2d42f778d0241/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.0
name	String	body (contained in the updatePciDeviceSpec structure)	Optional. The resource name.		3.5.0
description	String	body (contained in the updatePciDeviceSpec structure)	Optional. The detailed description of the resource.		3.5.0
romContent	String	body (contained in the updatePciDeviceSpec structure)	Optional. The ROM content encoded in Base64 format.		3.5.0
romVersion	String	body (contained in the updatePciDeviceSpec structure)	Optional. The ROM version.		3.5.0
abandonSpecRom	boolean	body (contained in the updatePciDeviceSpec structure)	Optional. Whether to delete the existing ROM.		3.5.0
state	String	body (contained in the updatePciDeviceSpec structure)	Optional. The state of the PCI device specification.	• Enabled • Disabled	3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ff483f5d5bf14587ac2d46a565b0f28f",
    "name": "MSI_GTX1060",
    "description": "NVIDIA Corporation, GP106 [GeForce GTX 1060 6GB],
a1, VGA compatible controller",
    "vendorId": "10de",
    "deviceId": "1c03",
    "subvendorId": "1462",
    "subdeviceId": "3283",
    "type": "GPU_Video_Controller",
    "state": "Enabled",
    "romVersion": "86.06.0E.00.28",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventory	PciDeviceSpecInventory	See inventory .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	3.5.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	3.5.0
vendorId	String	The vendor ID.	3.5.0
deviceId	String	The device ID.	3.5.0
subvendorId	String	The sub-vendor ID.	3.5.0
subdeviceId	String	The sub-device ID.	3.5.0
ramSize	String	The RAM size.	3.5.0
maxPartNum	Integer	The maximum number of virtual functions.	3.5.0
isVirtual	Boolean	Whether the device is a virtual device.	3.5.0
romVersion	String	The ROM version.	3.5.0

Name	Type	Description	Starting Version
romMd5sum	String	The ROM MD5 checksum.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	PciDeviceType	See type .	3.5.0
state	PciDeviceSpecState	See state .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	2.1
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	2.1
GPU_3D_Controller	PciDeviceType	The GPU 3D controller.	2.1
Moxa_Device	PciDeviceType	The MOXA card.	2.1
Generic	PciDeviceType	The general device.	2.1

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceSpecState	The PCI device is enabled.	3.5.0
Disabled	PciDeviceSpecState	The PCI device is disabled.	3.5.0

SDK Sample

Java SDK

```
UpdatePciDeviceSpecAction action = new UpdatePciDeviceSpecAction();
action.uuid = "4fd1d8c83d674e7abaa931a3972a37da";
action.name = "MSI_GTX1060";
action.description = "NVIDIA Corporation, GP106 [GeForce GTX 1060 6GB
], a1, VGA compatible controller";
action.romContent = "*BASE64 ENCODED ROM CONTENT*";
action.romVersion = "86.06.0E.00.29";
action.abandonSpecRom = false;
```

```
action.state = "Enabled";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdatePciDeviceSpecAction.Result res = action.call();
```

Python SDK

```
UpdatePciDeviceSpecAction action = UpdatePciDeviceSpecAction()
action.uuid = "12de0d18f2e24fb8b178644cfcad105a"
action.name = "MSI_GTX1060"
action.description = "NVIDIA Corporation, GP106 [GeForce GTX 1060 6GB
], a1, VGA compatible controller"
action.romContent = "*BASE64 ENCODED ROM CONTENT*"
action.romVersion = "86.06.0E.00.29"
action.abandonSpecRom = false
action.state = "Enabled"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdatePciDeviceSpecAction.Result res = action.call()
```

5.2.3.42.18 GetPciDeviceSpecCandidates

API Request

URLs

```
GET zstack/v1/pci-device-specs/candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Samuel

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/pci-device-specs/candidates?
clusterUuids=d3305a8348d937ba97d260fb0af0e87d&clusterUuids=4943e8ab691435f98f7d22
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
clusterUuids	List	query	Optional. The cluster UUID.		3.5.0
hostUuid	String	query	Optional. The host UUID.		3.5.0
vmInstance Uuid	String	query	Optional. The VM instance UUID.		3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
vmInstance Uuids	List	query	Optional. The VM instance UUID list.		3.6.1
types	List	query	Optional. The PCI device types.		3.5.0
systemTags	List	query	Optional. The system tags.		3.5.0
userTags	List	query	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "87aceed20b6a46fbb4e45b74a514afd9",
      "name": "MSI_GTX1060",
      "description": "NVIDIA Corporation, GP106 [GeForce GTX 1060 6GB
    ], a1, VGA compatible controller",
      "vendorId": "10de",
      "deviceId": "1c03",
      "subvendorId": "1462",
      "subdeviceId": "3283",
      "type": "GPU_Video_Controller",
      "state": "Enabled",
      "romVersion": "86.06.0E.00.28",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventories	List	See inventories .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	3.5.0
vendorId	String	The vendor ID.	3.5.0
deviceId	String	The device ID.	3.5.0
subvendorId	String	The sub-vendor ID.	3.5.0
subdeviceId	String	The sub-device ID.	3.5.0
ramSize	String	The RAM size.	3.5.0
maxPartNum	Integer	The maximum number of virtual functions.	3.5.0

Name	Type	Description	Starting Version
isVirtual	Boolean	Whether the device is a virtual device.	3.5.0
romVersion	String	The ROM version.	3.5.0
romMd5sum	String	The ROM MD5 checksum.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	PciDeviceType	See type .	3.5.0
state	PciDeviceSpecState	See state .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	2.1
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	2.1
GPU_3D_Controller	PciDeviceType	The GPU 3D controller.	2.1
Moxa_Device	PciDeviceType	The MOXA card.	2.1
Generic	PciDeviceType	The general device.	2.1

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceSpecState	The PCI device is enabled.	3.5.0
Disabled	PciDeviceSpecState	The PCI device is disabled.	3.5.0

SDK Sample

Java SDK

```
GetPciDeviceSpecCandidatesAction action = new GetPciDeviceSpecCandidatesAction();
```

```

action.clusterUuids = asList("d3305a8348d937ba97d260fb0af0e87d", "
4943e8ab691435f98f7d22e3196f36a0");
action.hostUuid = "8bcb6475294a3283b5105f36c52c4aa9";
action.vmInstanceUuid = "c4bd1f978e843300b8de214567841c3a";
action.types = asList("GPU_Video_Controller", "GPU_Audio_Controller");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetPciDeviceSpecCandidatesAction.Result res = action.call();

```

Python SDK

```

GetPciDeviceSpecCandidatesAction action = GetPciDeviceSpecCand
idatesAction()
action.clusterUuids = [d3305a8348d937ba97d260fb0af0e87d, 4943e8ab69
1435f98f7d22e3196f36a0]
action.hostUuid = "8bcb6475294a3283b5105f36c52c4aa9"
action.vmInstanceUuid = "c4bd1f978e843300b8de214567841c3a"
action.types = [GPU_Video_Controller, GPU_Audio_Controller]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetPciDeviceSpecCandidatesAction.Result res = action.call()

```

5.2.3.42.19 QueryPciDeviceSpec

API Request

URLs

```
GET zstack/v1/pci-device-specs
```

```
GET zstack/v1/pci-device-specs/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/pci-device-specs?
q=uuid=148eb0059a193de59e5278395c36baa7

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/pci-device-specs/
f5caf15dfb98366cbf87d41aa01385b9

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPciDeviceSpec**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "4e583459b0bb4a8085f2acf4040ab802",
      "name": "MSI_GTX1060",
      "description": "NVIDIA Corporation, GP106 [GeForce GTX 1060 6GB",
      "a1": "VGA compatible controller",
      "vendorId": "10de",
      "deviceId": "1c03",
      "subvendorId": "1462",
      "subdeviceId": "3283",
      "type": "GPU_Video_Controller",
      "state": "Enabled",
      "romVersion": "86.06.0E.00.28",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventories	List	See inventories .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	3.5.0
vendorId	String	The vendor ID.	3.5.0
deviceId	String	The device ID.	3.5.0
subvendorId	String	The sub-vendor ID.	3.5.0
subdeviceId	String	The sub-device ID.	3.5.0
ramSize	String	The RAM size.	3.5.0
maxPartNum	Integer	The maximum number of virtual functions.	3.5.0
isVirtual	Boolean	Whether the device is a virtual device.	3.5.0
romVersion	String	The ROM version.	3.5.0
romMd5sum	String	The ROM MD5 checksum.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	PciDeviceType	See type .	3.5.0
state	PciDeviceSpecState	See state .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	2.1
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	2.1
GPU_3D_Controller	PciDeviceType	The GPU 3D controller .	2.1
Moxa_Device	PciDeviceType	The MOXA card.	2.1
Generic	PciDeviceType	The general device.	2.1

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceSpecState	The PCI device is enabled.	3.5.0
Disabled	PciDeviceSpecState	The PCI device is disabled.	3.5.0

SDK Sample

Java SDK

```
QueryPciDeviceSpecAction action = new QueryPciDeviceSpecAction();
action.conditions = asList("uuid=96a05dc8dbee32ddb15c63680df63792");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryPciDeviceSpecAction.Result res = action.call();
```

Python SDK

```
QueryPciDeviceSpecAction action = QueryPciDeviceSpecAction()
action.conditions = ["uuid=362f676642ba3288bf02c98fcee26d74"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryPciDeviceSpecAction.Result res = action.call()
```

5.2.3.42.20 QueryVmInstancePciDeviceSpecRef

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceId}/pci-device-specs
```

```
GET zstack/v1/vm-instances/{vmInstanceId}/pci-device-specs/{pciSpecUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/{vmInstanceId}/
pci-device-specs?q=vmInstanceId=e58abf7fd2d0332bb18ba348195be863
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
{vmInstanceId}/pci-device-specs/{pciSpecUuid}?
q=vmInstanceId=34ff56e0fd1e3cd789a30d66fd4bf3aa
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using zstack-cli, entering **QueryVmInstancePciDeviceSpecRef**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "vmInstanceId": "c40d04f99f7647f2bf145aa6e3d463ff",
      "pciSpecUuid": "9afda707d3b14838adaa48d4295f3d5f",
      "pciDeviceNumber": 1.0,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventories	List	See inventories .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventories

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	3.5.0

Name	Type	Description	Starting Version
pciSpecUuid	String	The UUID of the PCI device specification.	3.5.0
pciDeviceNumber	Integer	The number of PCI devices to be attached to the VM instance . Note that these devices must conform to the PCI device specification. Default value: 1.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

SDK Sample

Java SDK

```
QueryVmInstancePciDeviceSpecRefAction action = new QueryVmInstancePciDeviceSpecRefAction();
action.conditions = asList("vmInstanceUuid=67c3ebbb1c683373a52310b218164181");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVmInstancePciDeviceSpecRefAction.Result res = action.call();
```

Python SDK

```
QueryVmInstancePciDeviceSpecRefAction action = QueryVmInstancePciDeviceSpecRefAction()
action.conditions = ["vmInstanceUuid=aef75bdacefd33349d9f15eb0f96fe89"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
QueryVmInstancePciDeviceSpecRefAction.Result res = action.call()
```

5.2.3.42.21 GenerateSriovPciDevices

API Request

URLs

```
PUT zstack/v1/pci-devices/{pciDeviceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "generateSriovPciDevices": {
    "virtPartNum": 4.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"generateSriovPciDevices":{"virtPartNum":4.0}}' http://
localhost:8080/zstack/v1/pci-devices/ce07829a08273d129f3b9d11cdf830b9/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pciDeviceUuid	String	url	The PCI device UUID.		3.5.0
virtPartNum	Integer	body (contained in the generateSr	The number of virtual functions.		3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		iovPciDevices structure)			
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
GenerateSriovPciDevicesAction action = new GenerateSriovPciDevicesAction();
action.pciDeviceUuid = "ce07829a08273d129f3b9d11cdf830b9";
action.virtPartNum = 4.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GenerateSriovPciDevicesAction.Result res = action.call();
```

Python SDK

```
GenerateSriovPciDevicesAction action = GenerateSriovPciDevicesAction()
action.pciDeviceUuid = "ce07829a08273d129f3b9d11cdf830b9"
action.virtPartNum = 4.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GenerateSriovPciDevicesAction.Result res = action.call()
```

5.2.3.42.22 UngenerateSriovPciDevices

API Request

URLs

```
PUT zstack/v1/pci-devices/{pciDeviceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "ungenerateSriovPciDevices": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"ungenerateSriovPciDevices":{}}' http://
localhost:8080/zstack/v1/pci-devices/31f8b8c366c63901ac928106568eca85/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pciDeviceUuid	String	url	The PCI device UUID.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UngenerateSriovPciDevicesAction action = new UngenerateSriovPciDe
vicesAction();
action.pciDeviceUuid = "31f8b8c366c63901ac928106568eca85";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UngenerateSriovPciDevicesAction.Result res = action.call();
```

Python SDK

```
UngenerateSriovPciDevicesAction action = UngenerateSriovPciDe
vicesAction()
action.pciDeviceUuid = "31f8b8c366c63901ac928106568eca85"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UngenerateSriovPciDevicesAction.Result res = action.call()
```

5.2.3.42.23 GenerateMdevDevices

API Request

URLs

```
PUT zstack/v1/pci-devices/{pciDeviceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "generateMdevDevices": {
    "mdevSpecUuid": "013f5f259daa3e119ec79496ed2f5697"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"generateMdevDevices":
{"mdevSpecUuid": "013f5f259daa3e119ec79496ed2f5697"}}' http://
localhost:8080/zstack/v1/pci-devices/b5b60d1bc9353c948c635a500a044c97/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pciDeviceUuid	String	url	The PCI device UUID.		3.5.0
mdevSpecUuid	String	body (contained in the generateMdevDevices structure)	The UUID of the MDEV device specification.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
GenerateMdevDevicesAction action = new GenerateMdevDevicesAction();
action.pciDeviceUuid = "b5b60d1bc9353c948c635a500a044c97";
action.mdevSpecUuid = "013f5f259daa3e119ec79496ed2f5697";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GenerateMdevDevicesAction.Result res = action.call();
```

Python SDK

```
GenerateMdevDevicesAction action = GenerateMdevDevicesAction()
action.pciDeviceUuid = "b5b60d1bc9353c948c635a500a044c97"
action.mdevSpecUuid = "013f5f259daa3e119ec79496ed2f5697"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GenerateMdevDevicesAction.Result res = action.call()
```

5.2.3.42.24 UngenerateMdevDevices

API Request

URLs

```
PUT zstack/v1/pci-devices/{pciDeviceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "ungenerateMdevDevices": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"ungenerateMdevDevices":{}}' http://localhost:8080/zstack/v1/pci-devices/772a0f2d8aaa3626964e080122a48c25/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pciDeviceUuid	String	url	The UUID of the PCI device from which the MDEV device is generated.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UngenerateMdevDevicesAction action = new UngenerateMdevDevicesAction();
action.pciDeviceUuid = "772a0f2d8aaa3626964e080122a48c25";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UngenerateMdevDevicesAction.Result res = action.call();
```

Python SDK

```
UngenerateMdevDevicesAction action = UngenerateMdevDevicesAction()
action.pciDeviceUuid = "772a0f2d8aaa3626964e080122a48c25"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UngenerateMdevDevicesAction.Result res = action.call()
```

5.2.3.42.25 QueryMdevDeviceSpec

API Request

URLs

```
GET zstack/v1/mdev-device-specs
```

```
GET zstack/v1/mdev-device-specs/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/mdev-device-specs?
q=uuid=80e1584c51673827abf32ad7c57fa5ed
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/mdev-device-
specs/21accb3c691435f4a453de1566f19a37
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryMdevDeviceSpec**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "18ebda01fb874e7db54ccd3a6712e92d",
      "name": "GRID_M60-2A",
      "specification": "{Max Resolution\u003d1920*1080, GRID License
\u003dGRID-Virtual-Apps,3.0, Instance Number\u003d4, Display Heads
\u003d4, Vendor\u003dNVIDIA, Frame Rate Limit\u003d60FPS, Name\u003dGRID_M60-2A, RAM\u003d2048MB}",
      "type": "GPU_Video_Controller",
      "state": "Enabled",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```


}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventories	List	See inventories .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	3.5.0
specification	String	The specification details.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	MdevDeviceType	See type .	3.5.0
state	MdevDeviceSpecState	See state .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	MdevDeviceType	The GPU video controller.	3.5.0

#state

Name	Type	Description	Starting Version
Enabled	MdevDeviceSpecState	The MDEV device specification is enabled.	3.5.0
Disabled	MdevDeviceSpecState	The MDEV device specification is disabled.	3.5.0

SDK Sample

Java SDK

```
QueryMdevDeviceSpecAction action = new QueryMdevDeviceSpecAction();
action.conditions = asList("uuid=96eb790c250833cd8889736e712639d9");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryMdevDeviceSpecAction.Result res = action.call();
```

Python SDK

```
QueryMdevDeviceSpecAction action = QueryMdevDeviceSpecAction()
action.conditions = ["uuid=804f01b24a4f3ad6b78b09345e0ada3a"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryMdevDeviceSpecAction.Result res = action.call()
```

5.2.3.42.26 AttachMdevDeviceToVm

API Request

URLs

```
POST zstack/v1/mdev-devices/{mdevDeviceUuid}/vm-instances/
{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/
mdev-devices/2a23f189ed803f869deab2b22ef83b4d/vm-instances/
e4108c6e45303e3bbd9743093127b894
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
mdevDeviceUuid	String	url	The MDEV device UUID.		3.5.0
vmInstanceUuid	String	url	The VM instance UUID.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2b29e6effba34e848164039e02511b89",
    "name": "GRID M60-2A",
    "parentUuid": "e9e3fe7b21644a19ac33e84dd27e3175",
    "hostUuid": "af505b47d522413d99d361b93cf92d2a",
    "mdevSpecUuid": "072b847576c34b419a29b16f62198e09",
    "type": "GPU_Video_Controller",
    "state": "Enabled",
    "status": "Active",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventory	MdevDeviceInventory	See inventory	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	3.5.0
parentUuid	String	The UUID of the physical PCI device.	3.5.0
hostUuid	String	The host UUID.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	MdevDeviceType	See type .	3.5.0
state	MdevDeviceState	See state .	3.5.0
status	MdevDeviceStatus	See status .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	MdevDeviceType	The GPU video controller.	3.5.0

#state

Name	Type	Description	Starting Version
Enabled	MdevDeviceState	The MDEV device is enabled.	3.5.0
Disabled	MdevDeviceState	The MDEV device is disabled.	3.5.0

#status

Name	Type	Description	Starting Version
Active	MdevDeviceStatus	The active status.	3.5.0
Attached	MdevDeviceStatus	The attached status.	3.5.0

SDK Sample

Java SDK

```
AttachMdevDeviceToVmAction action = new AttachMdevDeviceToVmAction();
action.mdevDeviceUuid = "2a23f189ed803f869deab2b22ef83b4d";
action.vmInstanceUuid = "e4108c6e45303e3bbd9743093127b894";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachMdevDeviceToVmAction.Result res = action.call();
```

Python SDK

```
AttachMdevDeviceToVmAction action = AttachMdevDeviceToVmAction()
action.mdevDeviceUuid = "2a23f189ed803f869deab2b22ef83b4d"
action.vmInstanceUuid = "e4108c6e45303e3bbd9743093127b894"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachMdevDeviceToVmAction.Result res = action.call()
```

5.2.3.42.27 DetachMdevDeviceFromVm

API Request

URLs

```
DELETE zstack/v1/mdev-devices/{mdevDeviceUuid}/vm-instances/
{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/mdev-
devices/4c2897ae50b8370489aa2e0caa96d370/vm-
instances/16aefa196d5535f6836ec25d301ee3aa?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
mdevDeviceUuid	String	url	The MDEV device UUID.		3.5.0
vmInstanceUuid	String	url	The VM instance UUID.		3.5.0
deleteMode	String	body	Optional. The delete mode. Options: Permissive Enforcing. Default mode: Permissive.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "db19d22ce51b4900bb404e673bdf6584",
    "name": "GRID M60-2A",
    "parentUuid": "7cb5801ead03491db07fa7db3cb3b1f1",
    "hostUuid": "eedf47e3f5f64953a507b11f999970ff",
    "mdevSpecUuid": "807b8e35a04d4d9d9a0ff431be6068a0",
    "type": "GPU_Video_Controller",
    "state": "Enabled",
    "status": "Active",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventory	MdevDeviceInventory	See inventory .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	3.5.0
parentUuid	String	The UUID of the physical PCI device.	3.5.0
hostUuid	String	The host UUID.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	MdevDeviceType	See type .	3.5.0
state	MdevDeviceState	See state .	3.5.0
status	MdevDeviceStatus	See status .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	MdevDeviceType	The GPU video controller.	3.5.0

#state

Name	Type	Description	Starting Version
Enabled	MdevDeviceState	The MDEV device is enabled.	3.5.0
Disabled	MdevDeviceState	The MDEV device is disabled.	3.5.0

#status

Name	Type	Description	Starting Version
Active	MdevDeviceStatus	The MDEV device is active.	3.5.0
Attached	MdevDeviceStatus	The MDEV device is attached.	3.5.0

SDK Sample

Java SDK

```
DetachMdevDeviceFromVmAction action = new DetachMdevDeviceFromVmAction();
action.mdevDeviceUuid = "4c2897ae50b8370489aa2e0caa96d370";
action.vmInstanceUuid = "16aefa196d5535f6836ec25d301ee3aa";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachMdevDeviceFromVmAction.Result res = action.call();
```

Python SDK

```
DetachMdevDeviceFromVmAction action = DetachMdevDeviceFromVmAction()
action.mdevDeviceUuid = "4c2897ae50b8370489aa2e0caa96d370"
action.vmInstanceUuid = "16aefa196d5535f6836ec25d301ee3aa"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DetachMdevDeviceFromVmAction.Result res = action.call()
```

5.2.3.42.28 UpdateMdevDevice

API Request

URLs

```
PUT zstack/v1/mdev-devices/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateMdevDevice": {
    "name": "NVIDIA_M60-2A",
    "description": "NVIDIA_M60-2A_2048MB_1920*1080_4Ins_60FPS",
    "state": "Enabled"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateMdevDevice":
{"name": "NVIDIA_M60-2A", "description": "NVIDIA_M60-2A_2048MB_1920*1080_4Ins_60FPS"}'
http://localhost:8080/zstack/v1/mdev-devices/
d89cea7c8a03306790d91e68fb0d0e65/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.0
name	String	body (contained in the	Optional. The resource name.		3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		updateMdev Device structure)			
description	String	body (contained in the updateMdev Device structure)	Optional. The detailed description of the resource.		3.5.0
state	String	body (contained in the updateMdev Device structure)	Optional. The MDEV device state.	• Enabled • Disabled	3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d026caddef774497aaf494d032fc8d61",
    "name": "GRID M60-2A",
    "parentUuid": "822875fb541440fb87ed31e3688c286e",
    "hostUuid": "80ab6fb85aa34745944d3772ab6a3e27",
    "mdevSpecUuid": "83a58b54e1fb449494876298b1a94148",
    "type": "GPU_Video_Controller",
    "state": "Enabled",
    "status": "Active",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.5.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	MdevDeviceInventory	See inventory .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	3.5.0
parentUuid	String	The UUID of the physical PCI device.	3.5.0

Name	Type	Description	Starting Version
hostUuid	String	The host UUID.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	MdevDeviceType	See type .	3.5.0
state	MdevDeviceState	See state .	3.5.0
status	MdevDeviceStatus	See status .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	MdevDeviceType	The GPU video controller.	3.5.0

#state

Name	Type	Description	Starting Version
Enabled	MdevDeviceState	The MDEV device is enabled.	3.5.0
Disabled	MdevDeviceState	The MDEV device is disabled.	3.5.0

#status

Name	Type	Description	Starting Version
Active	MdevDeviceStatus	The MDEV device is active.	3.5.0
Attached	MdevDeviceStatus	The MDEV device is attached.	3.5.0

SDK Sample

Java SDK

```
UpdateMdevDeviceAction action = new UpdateMdevDeviceAction();
action.uuid = "d89cea7c8a03306790d91e68fb0d0e65";
action.name = "NVIDIA_M60-2A";
action.description = "NVIDIA_M60-2A_2048MB_1920*1080_4Ins_60FPS";
action.state = "Enabled";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateMdevDeviceAction.Result res = action.call();
```

Python SDK

```
UpdateMdevDeviceAction action = UpdateMdevDeviceAction()
action.uuid = "d89cea7c8a03306790d91e68fb0d0e65"
action.name = "NVIDIA_M60-2A"
action.description = "NVIDIA_M60-2A_2048MB_1920*1080_4Ins_60FPS"
action.state = "Enabled"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateMdevDeviceAction.Result res = action.call()
```

5.2.3.42.29 GetMdevDeviceCandidates

API Request

URLs

```
GET zstack/v1/mdev-devices/candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/mdev-devices/candidates?
vmInstanceUuid=3be91dd3332a3ef0b57831dcfc28a0c2&types=GPU_Video_Controller
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
clusterUuids	List	query	Optional. The cluster UUID list.		3.5.0
hostUuid	String	query	Optional. The host UUID.		3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	query	Optional. The VM instance UUID.		3.5.0
types	List	query	Optional. The MDEV device types.		3.5.0
systemTags	List	query	Optional. The system tags.		3.5.0
userTags	List	query	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "4dd1f251873b4173939179c29b864df0",
      "name": "GRID M60-2A",
      "parentUuid": "36ff3d337d644bb9803f6599ec77189c",
      "hostUuid": "f1c21432e12245e78ee05324bb0886b4",
      "mdevSpecUuid": "8c9ddca8f93d4457acf78194986f8034",
      "type": "GPU_Video_Controller",
      "state": "Enabled",
      "status": "Active",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventories	List	See inventories .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	3.5.0
parentUuid	String	The UUID of the physical PCI device.	3.5.0
hostUuid	String	The host UUID.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	MdevDeviceType	See type .	3.5.0
state	MdevDeviceState	See state .	3.5.0
status	MdevDeviceStatus	See status .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	MdevDeviceType	The GPU video controller.	3.5.0

#state

Name	Type	Description	Starting Version
Enabled	MdevDeviceState	The MDEV device is enabled.	3.5.0
Disabled	MdevDeviceState	The MDEV device is disabled.	3.5.0

#status

Name	Type	Description	Starting Version
Active	MdevDeviceStatus	The MDEV device is active.	3.5.0
Attached	MdevDeviceStatus	The MDEV device is attached.	3.5.0

SDK Sample

Java SDK

```
GetMdevDeviceCandidatesAction action = new GetMdevDeviceCandidatesAction();
action.vmInstanceUuid = "3be91dd3332a3ef0b57831dcfc28a0c2";
action.types = asList("GPU_Video_Controller");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
GetMdevDeviceCandidatesAction.Result res = action.call();
```

Python SDK

```
GetMdevDeviceCandidatesAction action = GetMdevDeviceCandidatesAction()
action.vmInstanceUuid = "3be91dd3332a3ef0b57831dcfc28a0c2"
action.types = [GPU_Video_Controller]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetMdevDeviceCandidatesAction.Result res = action.call()
```

5.2.3.42.30 QueryMdevDevice

API Request

URLs

```
GET zstack/v1/mdev-devices
```

```
GET zstack/v1/mdev-devices/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/mdev-devices
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/mdev-devices/9fa9e261caad306f89ccde6f0dca7a1d
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryMdevDevice**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "597624b580d1458f82671b0ef77cf6a4",
      "name": "GRID M60-2A",
      "parentUuid": "90c171f07b21452b87b6d5ee58f4d687",
      "hostUuid": "b440c9393fc644cc8394d789ea1e18e1",
      "mdevSpecUuid": "91b07312092741f18a382942a92f1373",
      "type": "GPU_Video_Controller",
```

```

    "state": "Enabled",
    "status": "Active",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventories	List	See inventories .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	3.5.0
parentUuid	String	The UUID of the physical PCI device.	3.5.0
hostUuid	String	The host UUID.	3.5.0
vmInstanceUuid	String	The VM instance UUID.	3.5.0
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	MdevDeviceType	See type .	3.5.0
state	MdevDeviceState	See state .	3.5.0
status	MdevDeviceStatus	See status .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	MdevDeviceType	The GPU video controller.	3.5.0

#state

Name	Type	Description	Starting Version
Enabled	MdevDeviceState	The MDEV device is enabled.	3.5.0
Disabled	MdevDeviceState	The MDEV device is disabled.	3.5.0

#status

Name	Type	Description	Starting Version
Active	MdevDeviceStatus	The MDEV device is active.	3.5.0
Attached	MdevDeviceStatus	The MDEV device is attached.	3.5.0

SDK Sample

Java SDK

```
QueryMdevDeviceAction action = new QueryMdevDeviceAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryMdevDeviceAction.Result res = action.call();
```

Python SDK

```
QueryMdevDeviceAction action = QueryMdevDeviceAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryMdevDeviceAction.Result res = action.call()
```

5.2.3.42.31 AddMdevDeviceSpecToVmInstance

API Request

URLs

```
POST zstack/v1/mdev-device-specs/{mdevSpecUuid}/vm-instances/
{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "mdevDeviceNumber": 1.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"mdevDeviceNumber":1.0}}'
http://localhost:8080/zstack/v1/mdev-device-
specs/dbcfe5ae889933a2a740584935e63e72/vm-
instances/3d0b1d8b82ba3dd0b95a7903f735bdd1
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
mdevSpecUuid	String	url	The UUID of the MDEV device specification.		3.5.0
vmInstanceUuid	String	url	The VM instance UUID.		3.5.0
mdevDeviceNumber	Integer	body (contained in the params structure)	Optional. The number of MDEV devices.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventory": {
    "vmInstanceUuid": "e2af8f869eff49d2a3d6f86cadc27090",
    "mdevSpecUuid": "aa2e5e2cd0e749fab48ed045117ed70b",
    "mdevDeviceNumber": 1.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	3.5.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventory	VmInstance MdevDevice SpecRefInventory	See inventory .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventory

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	3.5.0

Name	Type	Description	Starting Version
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
mdevDeviceNumber	Integer	The number of MDEV devices to be attached to the VM instance . Note that these devices must conform to the MDEV device specification. Default value: 1	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

SDK Sample

Java SDK

```
AddMdevDeviceSpecToVmInstanceAction action = new AddMdevDeviceSpecToVmInstanceAction();
action.mdevSpecUuid = "dbcfe5ae889933a2a740584935e63e72";
action.vmInstanceUuid = "3d0b1d8b82ba3dd0b95a7903f735bdd1";
action.mdevDeviceNumber = 1.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddMdevDeviceSpecToVmInstanceAction.Result res = action.call();
```

Python SDK

```
AddMdevDeviceSpecToVmInstanceAction action = AddMdevDeviceSpecToVmInstanceAction()
action.mdevSpecUuid = "dbcfe5ae889933a2a740584935e63e72"
action.vmInstanceUuid = "3d0b1d8b82ba3dd0b95a7903f735bdd1"
action.mdevDeviceNumber = 1.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddMdevDeviceSpecToVmInstanceAction.Result res = action.call()
```

5.2.3.42.32 RemoveMdevDeviceSpecFromVmInstance

API Request

URLs

```
DELETE zstack/v1/mdev-device-specs/{mdevSpecUuid}/vm-instances/
{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/mdev-
device-specs/195f9b240d4a3f8b9946950694745fff/vm-
instances/76ce5da88e383ee983955f3a24aea5cf?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
mdevSpecUuid	String	url	The UUID of the MDEV device specification.		3.5.0
vmInstanceUuid	String	url	The VM instance UUID.		3.5.0
deleteMode	String	body	Optional. The delete mode. Options: Permissive Enforcing. Default mode: Permissive.		3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0
userTags	List	body	Optional. The user tags.		3.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveMdevDeviceSpecFromVmInstanceAction action = new RemoveMdev
DeviceSpecFromVmInstanceAction();
action.mdevSpecUuid = "195f9b240d4a3f8b9946950694745fff";
action.vmInstanceUuid = "76ce5da88e383ee983955f3a24aea5cf";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveMdevDeviceSpecFromVmInstanceAction.Result res = action.call();
```

Python SDK

```
RemoveMdevDeviceSpecFromVmInstanceAction action = RemoveMdevDeviceSpec
FromVmInstanceAction()
action.mdevSpecUuid = "195f9b240d4a3f8b9946950694745fff"
action.vmInstanceUuid = "76ce5da88e383ee983955f3a24aea5cf"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveMdevDeviceSpecFromVmInstanceAction.Result res = action.call()
```

5.2.3.42.33 UpdateMdevDeviceSpec

API Request

URLs

```
PUT zstack/v1/mdev-device-specs/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateMdevDeviceSpec": {
    "name": "GRID_M60-2A",
    "description": "NVIDIA Corporation, GM204GL [Tesla M60], a1, VGA
compatible controller",
    "state": "Enabled"
  },
}
```

```
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateMdevDeviceSpec":
{"name": "GRID_M60-2A", "description": "NVIDIA Corporation, GM204GL
[Tesla M60], a1, VGA compatible controller", "state": "Enabled"}}'
http://localhost:8080/zstack/v1/mdev-device-specs/
abd8da93989a45b3b31023bf293b7a56/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.0
name	String	body (contained in the updateMdev DeviceSpec structure)	Optional. The resource name.		3.5.0
description	String	body (contained in the updateMdev DeviceSpec structure)	Optional. The detailed description of the resource.		3.5.0
state	String	body (contained in the updateMdev DeviceSpec structure)	Optional. The MDEV specification state.	- Enabled - Disabled	3.5.0
systemTags	List	body	Optional. The system tags.		3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7cb7791f5c334fa699670765199e47ae",
    "name": "GRID_M60-2A",
    "specification": "{Max Resolution\u003d1920*1080, GRID License \u003dGRID-Virtual-Appls,3.0, Instance Number\u003d4, Display Heads \u003d4, Vendor\u003dNVIDIA, Frame Rate Limit\u003d60FPS, Name\u003dGRID_M60-2A, RAM\u003d2048MB}",
    "type": "GPU_Video_Controller",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventory	MdevDevice SpecInventory	See inventory .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0

Name	Type	Description	Starting Version
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0
description	String	The detailed description of the resource.	3.5.0
specification	String	The specification details.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	MdevDeviceType	See type .	3.5.0
state	MdevDeviceSpecState	See state .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	MdevDeviceType	The GPU video controller.	3.5.0

#state

Name	Type	Description	Starting Version
Enabled	MdevDeviceSpecState	The MDEV device specification is enabled.	3.5.0
Disabled	MdevDeviceSpecState	The MDEV device specification is disabled.	3.5.0

SDK Sample

Java SDK

```
UpdateMdevDeviceSpecAction action = new UpdateMdevDeviceSpecAction();
action.uuid = "53f36ffde0b54220a0894794e2420e37";
action.name = "GRID_M60-2A";
action.description = "NVIDIA Corporation, GM204GL [Tesla M60], a1, VGA compatible controller";
action.state = "Enabled";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateMdevDeviceSpecAction.Result res = action.call();
```

Python SDK

```
UpdateMdevDeviceSpecAction action = UpdateMdevDeviceSpecAction()
action.uuid = "bfd502190f794603b26f699f8f8949f4"
action.name = "GRID_M60-2A"
action.description = "NVIDIA Corporation, GM204GL [Tesla M60], a1, VGA compatible controller"
action.state = "Enabled"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateMdevDeviceSpecAction.Result res = action.call()
```

5.2.3.42.34 GetMdevDeviceSpecCandidates

API Request

URLs

```
GET zstack/v1/mdev-device-specs/candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/mdev-device-specs/candidates?
vmInstanceUuid=319897b485313c7a96b0af986b91baea&types=GPU_Video_Controller
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
clusterUuids	List	query	Optional. The cluster UUID list.		3.5.0
hostUuid	String	query	Optional. The host UUID.		3.5.0
vmInstanceUuid	String	query	Optional. The VM instance UUID.		3.5.0
vmInstanceUuids	List	query	Optional. The VM instance UUID list.		3.6.1
types	List	query	Optional. The MDEV device types.		3.5.0
systemTags	List	query	Optional. The system tags.		3.5.0
userTags	List	query	Optional. The user tags.		3.5.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "886c86dcca0a4f6696cf390c08d3e551",
      "name": "GRID_M60-2A",
      "specification": "{Max Resolution\u003d1920*1080, GRID License \u003dGRID-Virtual-Apps,3.0, Instance Number\u003d4, Display Heads \u003d4, Vendor\u003dNVIDIA, Frame Rate Limit\u003d60FPS, Name\u003dGRID_M60-2A, RAM\u003d2048MB}",
      "type": "GPU_Video_Controller",
      "state": "Enabled",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```


}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventories	List	See inventories .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.0
name	String	The resource name.	3.5.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	3.5.0
specification	String	The specification details.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0
type	MdevDeviceType	See type .	3.5.0
state	MdevDeviceSpecState	See state .	3.5.0

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	MdevDeviceType	The GPU video controller.	3.5.0

#state

Name	Type	Description	Starting Version
Enabled	MdevDeviceSpecState	The MDEV device specification is enabled.	3.5.0
Disabled	MdevDeviceSpecState	The MDEV device specification is disabled.	3.5.0

SDK Sample

Java SDK

```
GetMdevDeviceSpecCandidatesAction action = new GetMdevDeviceSpecCandidatesAction();
action.vmInstanceUuid = "319897b485313c7a96b0af986b91baea";
action.types = asList("GPU_Video_Controller");
action.sessionId = "b86c9016b4f24953a9edfb53ca0678c";
GetMdevDeviceSpecCandidatesAction.Result res = action.call();
```

Python SDK

```
GetMdevDeviceSpecCandidatesAction action = GetMdevDeviceSpecCandidatesAction()
action.vmInstanceUuid = "319897b485313c7a96b0af986b91baea"
```

```

action.types = [GPU_Video_Controller]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetMdevDeviceSpecCandidatesAction.Result res = action.call()

```

5.2.3.42.35 QueryVmInstanceMdevDeviceSpecRef

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceId}/mdev-device-specs
```

```
GET zstack/v1/vm-instances/{vmInstanceId}/mdev-device-specs/
{mdevSpecUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/{vmInstanceId}/
mdev-device-specs?q=vmInstanceId=15ea1f7027833d9ea566ea590184d5d2

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
{vmInstanceId}/mdev-device-specs/{mdevSpecUuid}?
q=vmInstanceId=5e3c68fed5ef39089614830ff30dfd50

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVmInstanceMdevDeviceSpecRef**, and pressing the **Tab** key.

API Response

Sample Response

```

{
  "inventories": [
    {
      "vmInstanceId": "56bfe280b3c84fe2abf1281a7050aabe",
      "mdevSpecUuid": "461d734e25824e4e9516c4798fa27068",
      "mdevDeviceNumber": 1.0,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}

```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.0
inventories	List	See inventories .	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventories

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	3.5.0

Name	Type	Description	Starting Version
mdevSpecUuid	String	The UUID of the MDEV device specification.	3.5.0
mdevDeviceNumber	Integer	The number of MDEV devices to be attached to the VM instance . Note that these devices must conform to the MDEV device specification. Default value: 1.	3.5.0
createDate	Timestamp	The creation date.	3.5.0
lastOpDate	Timestamp	The last operation date.	3.5.0

SDK Sample

Java SDK

```
QueryVmInstanceMdevDeviceSpecRefAction action = new QueryVmInstanceMdevDeviceSpecRefAction();
action.conditions = asList("vmInstanceUuid=308f8eccec9b320bbe082f233e7f822c");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVmInstanceMdevDeviceSpecRefAction.Result res = action.call();
```

Python SDK

```
QueryVmInstanceMdevDeviceSpecRefAction action = QueryVmInstanceMdevDeviceSpecRefAction()
action.conditions = ["vmInstanceUuid=254f7f2f30bb3b7bb26595fc5120a63b"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryVmInstanceMdevDeviceSpecRefAction.Result res = action.call()
```

5.2.3.43 USB Redirection Operations

5.2.3.43.1 GetVmUsbRedirect

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/usbredirect
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth bb5fd18e914f4bfd88032edd0ee7b975" \
-X GET http://localhost:8080/zstack/v1/vm-
instances/4b9d28c1d35f4f14b8ba1bb982500c50/usbredirect
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1
systemTags	List	query	Optional. The system tags.		2.1
userTags	List	query	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "enable": true
}
```

Name	Type	Description	Starting Version
enable	boolean	If true, the USB redirection switch is enabled, or vice versa.	2.1

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

SDK Sample

Java SDK

```
GetVmUsbRedirectAction action = new GetVmUsbRedirectAction();
action.uuid = "c58671c58dd147e29d4bc263feafa04d";
action.sessionId = "e173648fdca94fd3ae720473a305ce4c";
```

```
GetVmUsbRedirectAction.Result res = action.call();
```

Python SDK

```
GetVmUsbRedirectAction action = GetVmUsbRedirectAction()
action.uuid = "08efac4de45a4f6789d1009afa9e295e"
action.sessionId = "3f5a7473758d4c8ab3cc4664461500a4"
GetVmUsbRedirectAction.Result res = action.call()
```

5.2.3.43.2 SetVmUsbRedirect

API Request

URLs

```
PUT zstack/v1/vm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmUsbRedirect": {
    "enable": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVmUsbRedirect":{"enable":true}}' \
http://localhost:8080/zstack/v1/vm-instances/
ceeca8ab8c6b33fab9bdc143dec13211/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1

Name	Type	Location	Description	Optional Value	Starting Version
enable	boolean	body (contained in the setVmUsbRedirect structure)	If true, the USB redirection switch is enabled, or vice versa.	• true • false	2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetVmUsbRedirectAction action = new SetVmUsbRedirectAction();
action.uuid = "8c14cf1dd17642c19622c924d065bb00";
action.enable = true;
action.sessionId = "6a5e2cc211794d28b9e1641c1a53d018";
SetVmUsbRedirectAction.Result res = action.call();
```

Python SDK

```
SetVmUsbRedirectAction action = SetVmUsbRedirectAction()
action.uuid = "977cd1ae8b5f4dcab4c5f2062089ebf9"
action.enable = true
action.sessionId = "e6b4af2b358b44ea9fc3ff185d9af869"
```

```
SetVmUsbRedirectAction.Result res = action.call()
```

5.2.3.44 USB Pass-through Operations

5.2.3.44.1 AttachUsbDeviceToVm

API Request

URLs

```
POST zstack/v1/usb-device/usb-devices/{usbDeviceUuid}/attach
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmInstanceUuid": "2a3697245a4a3e829a246e222c243688",
    "attachType": "PassThrough"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vmInstanceUuid":"2a3697245a4a3e829a246e222c243688", "attachType":"PassThrough"}}'
http://localhost:8080/zstack/v1/usb-device/usb-devices/84838a1925bb3eb3b2440a8afd420e40/attach
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
usbDeviceUuid	String	url	The USB device UUID.		2.2

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	body (contained in the params structure)	The VM instance UUID.		2.2
attachType	String	body (contained in the params structure)	Optional. The attach type.	- PassThrough - Redirect	3.5.0
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "dc782167a4853525848fd04bf606d072",
    "name": "usb",
    "hostUuid": "dea6020aae7b3244be45eee6ae1d4d0f",
    "vmInstanceUuid": "33471e0ae8a33b3b8b0f295eff6e4db4",
    "state": "Enabled",
    "busNum": "001",
    "devNum": "001",
    "idVendor": "0781",
    "idProduct": "5591",
    "iManufacturer": "SanDisk",
    "iProduct": "Ultra USB 3.0",
    "iSerial": "0000000000001",
    "usbVersion": "3.0",
    "attachType": "PassThrough"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventory	UsbDeviceInventory	See inventory .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
hostUuid	String	The host UUID.	2.2
vmInstanceUuid	String	The VM instance UUID.	2.2
busNum	String	The bus No.	2.2
devNum	String	The device No.	2.2
idVendor	String	The vendor ID.	2.2

Name	Type	Description	Starting Version
idProduct	String	The device ID.	2.2
iManufacturer	String	The manufacturer.	2.2
iProduct	String	The device type.	2.2
iSerial	String	The serial No.	2.2
usbVersion	String	The USB version.	2.2
attachType	String	The attach type.	3.5.0
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
state	UsbDeviceState	See state .	2.2

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.2
ordinal	int		2.2

SDK Sample

Java SDK

```
AttachUsbDeviceToVmAction action = new AttachUsbDeviceToVmAction();
action.usbDeviceUuid = "84838a1925bb3eb3b2440a8afd420e40";
action.vmInstanceUuid = "2a3697245a4a3e829a246e222c243688";
action.attachType = "PassThrough";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachUsbDeviceToVmAction.Result res = action.call();
```

Python SDK

```
AttachUsbDeviceToVmAction action = AttachUsbDeviceToVmAction()
action.usbDeviceUuid = "84838a1925bb3eb3b2440a8afd420e40"
action.vmInstanceUuid = "2a3697245a4a3e829a246e222c243688"
action.attachType = "PassThrough"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachUsbDeviceToVmAction.Result res = action.call()
```

5.2.3.44.2 DetachUsbDeviceFromVm

API Request

URLs

```
POST zstack/v1/usb-device/usb-devices/{usbDeviceUuid}/detach
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' \
http://localhost:8080/zstack/v1/usb-device/usb-devices/17a5e98e5f943e8fafa01602d50cf3ad/detach
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
usbDeviceUuid	String	url	The USB device UUID.		2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DetachUsbDeviceFromVmAction action = new DetachUsbDeviceFromVmAction
();
action.usbDeviceUuid = "5256c889e9f0489e8fd12b66d176fb7d";
action.sessionId = "8082962f2d304a3fbee969e6b4749338";
DetachUsbDeviceFromVmAction.Result res = action.call();
```

Python SDK

```
DetachUsbDeviceFromVmAction action = DetachUsbDeviceFromVmAction()
action.usbDeviceUuid = "ced1bbb139c54d1d973ddc38ae565244"
action.sessionId = "f6550a168b9847fca4c98df088d86c09"
DetachUsbDeviceFromVmAction.Result res = action.call()
```

5.2.3.44.3 GetUsbDeviceCandidatesForAttachingVm

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceUuid}/candidate-usb-devices
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
ab759c79169739cb9e13ff091c4fa386/candidate-usb-devices?
attachType=PassThrough
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		2.2
attachType	String	query	Optional. The attach type.	- PassThrough - Redirect	3.6.0
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "b58b4b48b3b8398f93b8b529f6f5b53a",
      "name": "usb",
      "hostUuid": "9f7438cf6fd233cf8fc27d4f311326ca",
      "vmInstanceUuid": "ccdfb1d443433e1a8beac3a1d54374d5",
      "state": "Enabled",
      "busNum": "001",
      "devNum": "001",
      "idVendor": "0781",
      "idProduct": "5591",
      "iManufacturer": "SanDisk",
      "iProduct": "Ultra USB 3.0",
      "iSerial": "0000000000001",
      "usbVersion": "3.0",
      "attachType": "PassThrough"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean	The API succeeded.	2.2
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2

Name	Type	Description	Starting Version
inventories	List	See inventories .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
hostUuid	String	The host UUID.	2.2
vmInstanceUuid	String	The VM instance UUID.	2.2
busNum	String	The bus No.	2.2

Name	Type	Description	Starting Version
devNum	String	The device No.	2.2
idVendor	String	The vendor ID.	2.2
idProduct	String	The device ID.	2.2
iManufacturer	String	The manufacturer.	2.2
iProduct	String	The device type.	2.2
iSerial	String	The serial No.	2.2
usbVersion	String	The USB version.	2.2
attachType	String	The attach type.	3.5.0
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
state	UsbDeviceState	See state .	2.2

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.2
ordinal	int		2.2

SDK Sample

Java SDK

```
GetUsbDeviceCandidatesForAttachingVmAction action = new GetUsbDeviceCandidatesForAttachingVmAction();
action.vmInstanceUuid = "ab759c79169739cb9e13ff091c4fa386";
action.attachType = "PassThrough";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetUsbDeviceCandidatesForAttachingVmAction.Result res = action.call();
```

Python SDK

```
GetUsbDeviceCandidatesForAttachingVmAction action = GetUsbDeviceCandidatesForAttachingVmAction()
action.vmInstanceUuid = "ab759c79169739cb9e13ff091c4fa386"
action.attachType = "PassThrough"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetUsbDeviceCandidatesForAttachingVmAction.Result res = action.call()
```

5.2.3.44.4 QueryUsbDevice

API Request

URLs

```
GET zstack/v1/usb-device/usb-devices
GET zstack/v1/usb-device/usb-devices/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 54e99d3cba30426599008210fe537a5a" \
-X GET http://localhost:8080/zstack/v1/usb-device/usb-devices
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth bd2e6629c65f4be6b0ae893664d80fac" \
-X GET http://localhost:8080/zstack/v1/usb-device/usb-devices/
d2da293d46ac46279168ae02b361c69f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryUsbDevice`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "0beadc00381c4ca09216dc2ebfb0fba3",
      "name": "usb",
      "hostUuid": "648749ea79fb412aab27712c5813600a",
      "vmInstanceUuid": "f862f3c01f3340d6ab68e7a79757342f",
      "state": "Enabled",
      "busNum": "001",
      "devNum": "001",
      "idVendor": "0781",
      "idProduct": "5591",
      "iManufacturer": "SanDisk",
      "iProduct": "Ultra USB 3.0",
      "iSerial": "0000000000001",
      "usbVersion": "3.0",
      "attachType": "PassThrough"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventories	List	See inventories .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.2
hostUuid	String	The host UUID.	2.2
vmInstanceUuid	String	The VM instance UUID.	2.2
busNum	String	The bus No.	2.2
devNum	String	The device No.	2.2
idVendor	String	The vendor ID.	2.2
idProduct	String	The device ID.	2.2
iManufacturer	String	The manufacturer.	2.2
iProduct	String	The device type.	2.2
iSerial	String	The serial No.	2.2
usbVersion	String	The USB version.	2.2
attachType	String	The attach type.	3.6.0
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
state	UsbDeviceState	See state .	2.2

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.2
ordinal	int		2.2

SDK Sample

Java SDK

```
QueryUsbDeviceAction action = new QueryUsbDeviceAction();
action.conditions = asList();
action.sessionId = "b51bb939a8844869abb32e9cedbc9a1f";
QueryUsbDeviceAction.Result res = action.call();
```

Python SDK

```
QueryUsbDeviceAction action = QueryUsbDeviceAction()
```

```

action.conditions = []
action.sessionId = "9f884d4333ba46369cd1039c9ea44965"
QueryUsbDeviceAction.Result res = action.call()

```

5.2.3.44.5 UpdateUsbDevice

API Request

URLs

```
PUT zstack/v1/usb-device/usb-devices/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "updateUsbDevice": {
    "name": "usb",
    "description": "this is a usb device",
    "state": "Enabled"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateUsbDevice":{"name":"usb","description":"this is a usb device","state":"Enabled"}}' \
http://localhost:8080/zstack/v1/usb-device/usb-devices/9d1ab4950ce933edabbaf8e73ca7e879/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.2

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the updateUsbDevice structure)	Optional. The resource name.		2.2
description	String	body (contained in the updateUsbDevice structure)	Optional. The detailed description of the resource.		2.2
state	String	body (contained in the updateUsbDevice structure)	Optional. The USB state.	• Enabled • Disabled	2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2695f7ce0bda4587bbabbbfaad080554",
    "description": "test usb",
    "hostUuid": "4261ceb358ce473fa62c137c1ba8d3ef",
    "vmInstanceUuid": "4c059c5e0a834d86984d3141d8ec42cb",
    "state": "Disabled",
    "idVendor": "10de",
    "idProduct": "0e0f",
    "iManufacturer": "SanDisk",
    "iProduct": "USB Storage",
    "iSerial": "0000000000001",
    "usbVersion": "3.0",
    "attachType": "PassThrough"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventory	UsbDeviceInventory	See inventory .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.2
hostUuid	String	The host UUID.	2.2
vmInstanceUuid	String	The VM instance UUID.	2.2
busNum	String	The bus No.	2.2
devNum	String	The device No.	2.2
idVendor	String	The vendor ID.	2.2
idProduct	String	The device ID.	2.2
iManufacturer	String	The manufacturer.	2.2
iProduct	String	The device type.	2.2
iSerial	String	The serial No.	2.2
usbVersion	String	The USB version.	2.2
attachType	String	The attach type.	3.6.0
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
state	UsbDeviceState	See state .	2.2

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.2
ordinal	int		2.2

SDK Sample

Java SDK

```
UpdateUsbDeviceAction action = new UpdateUsbDeviceAction();
action.uuid = "86d05b807cfa47a7969745f0ffe8ee4b";
action.name = "usb";
action.description = "this is a usb device";
action.state = "Enabled";
action.sessionId = "86600ceaed5642ad810828129fe0e4a0";
```

```
UpdateUsbDeviceAction.Result res = action.call();
```

Python SDK

```
UpdateUsbDeviceAction action = UpdateUsbDeviceAction()
action.uuid = "f16940abc205404bb17b00367f5b6a8d"
action.name = "usb"
action.description = "this is a usb device"
action.state = "Enabled"
action.sessionId = "a65b10bd9a164d33a42d8bacfab5acd6"
UpdateUsbDeviceAction.Result res = action.call()
```

5.2.3.45 SR-IOV Operations

5.2.3.45.1 IsVfNicAvailableInL3Network

API Request

URLs

```
GET zstack/v1/l3-networks/{l3NetworkUuid}/hosts/{hostUuid}/
vfnicavailable
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-
networks/443e156ec6883356974f97f803187310/
hosts/037404d26b033e9d9fe0d3e7e4bbaa8b/vfnicavailable
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		3.9.0
hostUuid	String	url	The host UUID.		3.9.0
systemTags	List	query	Optional. The system tags.		3.9.0
userTags	List	query	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "vfnicAvailable": true
}
```

Name	Type	Description	Starting Version
vfnicAvailable	boolean	Whether a virtual function (VF) NIC is available.	3.9.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

SDK Sample

Java SDK

```
IsVfNicAvailableInL3NetworkAction action = new IsVfNicAvailableInL3NetworkAction();
action.l3NetworkUuid = "443e156ec6883356974f97f803187310";
action.hostUuid = "037404d26b033e9d9fe0d3e7e4bbaa8b";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
IsVfNicAvailableInL3NetworkAction.Result res = action.call();
```

Python SDK

```
IsVfNicAvailableInL3NetworkAction action = IsVfNicAvailableInL3NetworkAction()
action.l3NetworkUuid = "443e156ec6883356974f97f803187310"
action.hostUuid = "037404d26b033e9d9fe0d3e7e4bbaa8b"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
IsVfNicAvailableInL3NetworkAction.Result res = action.call()
```

5.2.3.45.2 ChangeVmNicType

API Request

URLs

```
PUT zstack/v1/vm-instances/nics/{vmNicUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVmNicType": {
    "vmNicType": "VNIC"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"changeVmNicType":{"vmNicType":"VNIC"}}'
http://localhost:8080/zstack/v1/vm-instances/nics/
ba83aa15bafd33e792267c428465b1e5/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID.		3.9.0
vmNicType	String	body (contained in the changeVmNicType structure)	The VM NIC type.	VNIC	3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "bd44ea50e2573d5d9249c938dba0dad6",
    "vmInstanceUuid": "1311eba1f7e53c3aa816a140fd783068",
    "usedIpUuid": "464575b453d53e60941c7eeee08f3149",
    "l3NetworkUuid": "b62214c53fde3f6eb825bf2ce59e3d2e",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "type": "VF"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0

Name	Type	Description	Starting Version
inventory	VmNicInventory	See inventory .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
vmInstanceUuid	String	The VM instance UUID.	3.9.0
l3NetworkUuid	String	The L3 network UUID.	3.9.0
ip	String	The IP address.	3.9.0
mac	String	The MAC address.	3.9.0
hypervisorType	String	The hypervisor type.	3.9.0

Name	Type	Description	Starting Version
netmask	String	The netmask.	3.9.0
gateway	String	The gateway.	3.9.0
metaData	String		3.9.0
ipVersion	Integer	The IP version.	3.9.0
deviceId	Integer	The device ID.	3.9.0
type	String	The NIC type.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
usedIps	List	See usedIps .	3.9.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
ipRangeUuid	String	The IP range UUID.	3.9.0
l3NetworkUuid	String	The L3 network UUID.	3.9.0
ipVersion	Integer	The IP version.	3.9.0
ip	String	The IP address.	3.9.0
netmask	String	The netmask.	3.9.0
gateway	String	The gateway.	3.9.0
usedFor	String		3.9.0
ipInLong	long		3.9.0
vmNicUuid	String	The VM NIC UUID.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
ChangeVmNicTypeAction action = new ChangeVmNicTypeAction();
action.vmNicUuid = "ba83aa15bafd33e792267c428465b1e5";
```

```
action.vmNicType = "VNIC";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeVmNicTypeAction.Result res = action.call();
```

Python SDK

```
ChangeVmNicTypeAction action = ChangeVmNicTypeAction()
action.vmNicUuid = "ba83aa15bafd33e792267c428465b1e5"
action.vmNicType = "VNIC"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeVmNicTypeAction.Result res = action.call()
```

5.2.3.45.3 ChangeVfNicHaState

API Request

URLs

```
PUT zstack/v1/vm-instances/nics/{vfNicUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVfNicHaState": {
    "haState": "Enabled"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"changeVfNicHaState":{"haState":"Enabled"}}'
http://localhost:8080/zstack/v1/vm-instances/
nics/8536b111015d3fd289907c5f53c80153/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vfNicUuid	String	url	VfNic UUID		5.1.0
haState	String	body (contained in the changeVfNicHaState structure)	Ha state.		5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "inventory": {
    "pciDeviceUuid": "4935759d5e543ff7bb9901262d67e805",
    "haState": "Enabled",
    "uuid": "5a39466d15e9303d8cd091be8f8b98a0",
    "vmInstanceUuid": "0c9912e742793004bd585150a4e243d0",
    "usedIpUuid": "6c1404d271ce3da4a5a845563b65ab55",
    "l3NetworkUuid": "0d42b1c567da3721b04d1bc316b2e0cb",
    "ip": "192.168.1.2",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0,
    "type": "VF",
    "state": "enable"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventory	VmVfNicInventory	See inventory	5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.1.0

#inventory

名字	类型	描述	起始版本
pciDeviceUuid	String	The pci device UUID.	5.1.0
haState	String	The hastate.	5.1.0
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
ip	String		5.1.0
mac	String		5.1.0
hypervisorType	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
metaData	String		5.1.0
ipVersion	Integer		5.1.0
driverType	String		5.1.0
internalName	String		5.1.0
deviceId	Integer		5.1.0
type	String		5.1.0
state	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
usedIps	List	See usedIps	5.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
ipRangeUuid	String	The ip range UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
ipVersion	Integer		5.1.0

Name	Type	Description	Starting Version
ip	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
usedFor	String		5.1.0
ipInLong	long		5.1.0
vmNicUuid	String	The VM Nic UUID.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```
ChangeVfNicHaStateAction action = new ChangeVfNicHaStateAction();
action.vfNicUuid = "8536b111015d3fd289907c5f53c80153";
action.haState = "Enabled";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeVfNicHaStateAction.Result res = action.call();
```

Python SDK

```
ChangeVfNicHaStateAction action = ChangeVfNicHaStateAction()
action.vfNicUuid = "8536b111015d3fd289907c5f53c80153"
action.haState = "Enabled"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeVfNicHaStateAction.Result res = action.call()
```

5.2.3.45.4 GetVfPciDeviceAvailableInL2Network

API Request

URLs

```
GET zstack/v1/l2-networks/vf-pci-devices-available
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l2-networks/vf-pci-devices-
available?l2NetworkUuids=7615ff44c9f03400b32b9138e1d332fc
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l2NetworkUuids	List	query	The L2 network UUID.		5.3.20
systemTags	List	query	Optional. The system tags.		5.3.20
userTags	List	query	Optional. The user tags.		5.3.20

API Response

Sample Response

```
{
  "l2VfAvailableClusters": {
    "76a2d0892dbb3047adc9f27227a47a24": [
      {
        "clusterHostAvailableVfs": {
          "cc8a747f6148357182ccbc922baf3611": {
            "ef8963015cb337e6b6e9ded639e74985": 10
          }
        }
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.20
l2VfAvailableClusters	Map		5.3.20
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.20

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.20
description	String	The brief description of the error.	5.3.20
details	String	The details about the error.	5.3.20
elaboration	String	The reserved field. Default value: null.	5.3.20
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.20

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.20

SDK Sample

Java SDK

```
GetVfPciDeviceAvailableInL2NetworkAction action = new GetVfPciDeviceAvailableInL2NetworkAction();
action.l2NetworkUuids = asList("7615ff44c9f03400b32b9138e1d332fc");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVfPciDeviceAvailableInL2NetworkAction.Result res = action.call();
```

Python SDK

```
GetVfPciDeviceAvailableInL2NetworkAction action = GetVfPciDeviceAvailableInL2NetworkAction()
action.l2NetworkUuids = [7615ff44c9f03400b32b9138e1d332fc]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVfPciDeviceAvailableInL2NetworkAction.Result res = action.call()
```

5.2.3.46 SE Operations

5.2.3.46.1 GenerateSeMdevDevices

API Request

URLs

```
PUT zstack/v1/mtty-devices/{mttyDeviceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "generateSeMdevDevices": {
    "virtPartNum": 4.0
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"generateSeMdevDevices":{"virtPartNum":4.0}}'
http://localhost:8080/zstack/v1/mtty-devices/
d6e129976ad830fdbd2361a62f9f44e0/actions
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
mttyDevice Uuid	String	url	The MTTY UUID.		4.6.0
virtPartNum	Integer	body(contained in the generateSeMdevDevices structure)	The division parts number.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags (可选)	List	body	The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
GenerateSeMdevDevicesAction action = new GenerateSeMdevDevicesAction();
action.mttyDeviceUuid = "d6e129976ad830fdbd2361a62f9f44e0";
action.virtPartNum = 4.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GenerateSeMdevDevicesAction.Result res = action.call();
```

Python SDK

```
GenerateSeMdevDevicesAction action = GenerateSeMdevDevicesAction()
action.mttyDeviceUuid = "d6e129976ad830fdbd2361a62f9f44e0"
action.virtPartNum = 4.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GenerateSeMdevDevicesAction.Result res = action.call()
```

5.2.3.46.2 QueryMttyDevice

API Request

URLs

```
GET zstack/v1/mtty-devices
```

```
GET zstack/v1/mtty-devices/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/mtty-devices
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/mtty-devices/
af9814346f623e61a86a603854231eac
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using zstack, entering **QueryMttyDevice**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "36f2f7aa68d1494ea0ac11d98bab0f5d",
      "name": "SE Device",
      "hostUuid": "109ad7360f5846deaf65e61ea7f51013",
      "type": "SE_Controller",
      "state": "Enabled",
      "virtStatus": "VFIO_MDEV_VIRTUALIZABLE"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.0
inventories	List	For more information, see inventories .	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
name	String	The resource name.	4.6.0
description	String	The detailed information of the resource.	4.6.0
hostUuid	String	The host UUID.	4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0
type	MttyDeviceType	For more information, see type	4.6.0
state	MttyDeviceState	For more information, see state .	4.6.0
virtStatus	MttyDeviceVirtStatus	For more information, see virtStatus .	4.6.0

#type

Name	Type	Description	Starting Version
SE_Controller	MttyDeviceType	The SE controller.	4.6.0

#state

Name	Type	Description	Starting Version
Enabled	MttyDeviceState	The enabled state.	4.6.0
Disabled	MttyDeviceState	The disabled state.	4.6.0

#virtStatus

Name	Type	Description	Starting Version
VFIO_MDEV_VIRTUALIZABLE	MttyDeviceVirtStatus	Support the VFIO_MDEV virtualization.	4.6.0
VFIO_MDEV_VIRTUALIZED	MttyDeviceVirtStatus	Virtualized by VFIO_MDEV.	4.6.0

Name	Type	Description	Starting Version
UNVIRTUALIZABLE	MttyDeviceVirtStatus	Cannot be virtualized.	4.6.0
UNKNOWN	MttyDeviceVirtStatus	Unknown.	4.6.0

SDK Sample

Java SDK

```
QueryHostNetworkInterfaceAction action = new QueryHostNetworkInterfaceAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryHostNetworkInterfaceAction.Result res = action.call();
```

Python SDK

```
QueryHostNetworkInterfaceAction action = QueryHostNetworkInterfaceAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryHostNetworkInterfaceAction.Result res = action.call()
```

5.2.3.46.3 UngenerateSeMdevDevices

API Request

URLs

```
PUT zstack/v1/mtty-devices/{mttyDeviceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "ungenerateSeMdevDevices": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X PUT -d '{"ungenerateSeMdevDevices":{}}' http://  
localhost:8080/zstack/v1/mtty-  
devices/1efca0f4fb223cbd83e5d225d0c97637/actions
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
mttyDevice Uuid	String	url	The UUID of the devided MTTY device.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{  
  "error": {  
    "code": "SYS.1001",  
    "description": "A message or a operation timeout",  
    "details": "Create VM on KVM timeout after 300s"  
  }  
}
```

SDK Sample

Java SDK

```
UngenerateSeMdevDevicesAction action = new UngenerateSeMdevDevi  
cesAction();  
action.mttyDeviceUuid = "1efca0f4fb223cbd83e5d225d0c97637";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
UngenerateSeMdevDevicesAction.Result res = action.call();
```

Python SDK

```
UngenerateSeMdevDevicesAction action = UngenerateSeMdevDevicesAction()  
action.mttyDeviceUuid = "1efca0f4fb223cbd83e5d225d0c97637"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UngenerateSeMdevDevicesAction.Result res = action.call()
```

5.2.3.46.4 DeleteMdevDevice

API Request

URLs

```
Delete zstack/v1/mdev-device/{mdevDeviceUuid}?uuid={uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/mdev-devices/
f858a5a7428935b39aa038b6d781efdb
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The UUID of the MDEV device.		4.6.0
deleteMode	String	body	Optional. The deletion mode.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteMdevDeviceAction action = new DeleteMdevDeviceAction();
action.mdevDeviceUuid = "f858a5a7428935b39aa038b6d781efdb";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteMdevDeviceAction.Result res = action.call();
```

Python SDK

```
DeleteMdevDeviceAction action = DeleteMdevDeviceAction()
action.mdevDeviceUuid = "f858a5a7428935b39aa038b6d781efdb"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteMdevDeviceAction.Result res = action.call()
```

5.2.4 GPU Device Operations

5.2.4.1 QueryGpuDevice

API Request

URLs

```
GET zstack/v1/gpu-device/gpu-devices
```

```
GET zstack/v1/gpu-device/gpu-devices/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl示例

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/gpu-device/gpu-devices?
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/gpu-device/gpu-devices/
36fd4a643a173c36a45bfa3a1761c567
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryGpuDevice`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {}
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.8
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.8
inventories	List	See inventories .	5.1.8

#error

名字	类型	描述	起始版本
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.8
description	String	The detailed description of the resource.	5.1.8
details	String	The details about the error.	5.1.8
elaboration	String	The reserved field. Default value: null.	5.1.8
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.8
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	5.1.8

名字	类型	描述	起始版本
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
serialNumber	String	The serial number.	5.1.8
memory	String	The GPU memory.	5.1.8
power	String	The GPU power consumption.	5.1.8
uuid	String	The resource UUID.	5.1.8
name	String	The resource name.	5.1.8
description	String	The resource description.	5.1.8
hostUuid	String	The host UUID.	5.1.8
parentUuid	String		5.1.8
vmInstanceUuid	String	The VM instance UUID.	5.1.8
pciSpecUuid	String		5.1.8
vendorId	String		5.1.8
vendor	String		5.1.8
deviceId	String		5.1.8
device	String		5.1.8
subvendorId	String		5.1.8
subdeviceId	String		5.1.8
pciDeviceAddress	String		5.1.8
iommuGroup	String		5.1.8
createDate	Timestamp	The creation date.	5.1.8
lastOpDate	Timestamp	The last operation date.	5.1.8
type	PciDeviceType	See type .	5.1.8
state	PciDeviceState	See state .	5.1.8

Name	Type	Description	Starting Version
status	PciDeviceStatus	See status .	5.1.8
virtStatus	PciDeviceVirtStatus	See virStatus .	5.1.8
chooser	PciDeviceChooser	See chooser .	5.1.8
metaData	PciDeviceMetaData	See metaData .	5.1.8
matchedPciDeviceOfferingRef	List	See matchedPciDeviceOfferingRef .	5.1.8
mdevSpecRefs	List	See mdevSpecRefs .	5.1.8

#type

Name	Type	Description	Starting Version
GPU_Video_Controller	PciDeviceType	The GPU video controller.	5.1.8
GPU_Audio_Controller	PciDeviceType	The GPU audio controller.	5.1.8
GPU_3D_Controller	PciDeviceType	The GPU 3D controller.	5.1.8
Moxa_Device	PciDeviceType	The MOXA device.	5.1.8
Generic	PciDeviceType	The generic devices.	5.1.8

#state

Name	Type	Description	Starting Version
Enabled	PciDeviceState	The device is enabled.	5.1.8
Disabled	PciDeviceState	The device is disabled.	5.1.8

#status

Name	Type	Description	Starting Version
Active	PciDeviceStatus	The device is active.	5.1.8
Attached	PciDeviceStatus	The device is attached.	5.1.8
System	PciDeviceStatus	The system.	5.1.8

#virStatus

Name	Type	Description	Starting Version
UNVIRTUALIZABLE	PciDeviceVirtStatus	The device is unvirtualizable.	5.1.8
SRIOV_VIRTUALIZABLE	PciDeviceVirtStatus	The device supports the SRIOV virtualization.	5.1.8
VFIO_MDEV_VIRTUALIZABLE	PciDeviceVirtStatus	The device supports the VFIO_MDEV virtualization.	5.1.8
SRIOV_VIRTUALIZED	PciDeviceVirtStatus	The device is virtualized through the SRIOV method.	5.1.8
VFIO_MDEV_VIRTUALIZED	PciDeviceVirtStatus	The device is virtualized through the VFIO_MDEV method.	5.1.8
SRIOV_VIRTUAL	PciDeviceVirtStatus	The device that is generated through the SRIOV virtualization.	5.1.8
UNKNOWN	PciDeviceVirtStatus	Unknown.	5.1.8

#chooser

Name	Type	Description	Starting Version
None	PciDeviceChooser		5.1.8
Device	PciDeviceChooser		5.1.8
Spec	PciDeviceChooser		5.1.8

#metaData

Name	Type	Description	Starting Version
metaData	String		5.1.8
metaDataEntries	List	See metaDataEntries .	5.1.8

#metaDataEntries

Name	Type	Description	Starting Version
key	String	The key.	5.1.8

Name	Type	Description	Starting Version
value	String	The value.	5.1.8
op	PciDeviceMetaDataOperator	See op .	5.1.8

#op

Name	Type	Description	Starting Version
Equal	PciDeviceMetaDataOperator	Equal.	5.1.8
Unequal	PciDeviceMetaDataOperator	Unequal.	5.1.8

#matchedPciDeviceOfferingRef

Name	Type	Description	Starting Version
pciDeviceUuid	String		5.1.8
pciDeviceOfferingUuid	String		5.1.8

#mdevSpecRefs

Name	Type	Description	Starting Version
pciDeviceUuid	String	The PCI device UUID.	5.1.8
mdevSpecUuid	String	The MDEV device offering UUID.	5.1.8
effective	Boolean	Whether the MDEV offering is used for the PCI device virtualization.	5.1.8
createDate	Timestamp	The creation date.	5.1.8
lastOpDate	Timestamp	The last operation date.	5.1.8

SDK Sample

Java SDK

```
QueryGpuDeviceAction action = new QueryGpuDeviceAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edfb53ca0678c";
```

```
QueryGpuDeviceAction.Result res = action.call();
```

Python SDK

```
QueryGpuDeviceAction action = QueryGpuDeviceAction()  
action.conditions = []  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
QueryGpuDeviceAction.Result res = action.call()
```

5.2.5 Primary Storage Operations

5.2.5.1 DeletePrimaryStorage

API Request

URLs

```
DELETE zstack/v1/primary-storage/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth af6279db8d5d4434afe789fdb214fe86" \  
-X DELETE http://localhost:8080/zstack/v1/primary-  
storage/84ecb184e2f649ac9300f804dfd9f43e?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The primary storage UUID.		0.6
deleteMode	String	body	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		0.6
systemTags	List	body	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeletePrimaryStorageAction action = new DeletePrimaryStorageAction();
action.uuid = "c471a57db90945129303e69cf731fee3";
action.deleteMode = "Permissive";
action.sessionId = "34041f0d587e4ce1827dd88f34a0a94b";
DeletePrimaryStorageAction.Result res = action.call();
```

Python SDK

```
DeletePrimaryStorageAction action = DeletePrimaryStorageAction()
action.uuid = "309a9da1c0884e679dd7f96502130ce3"
action.deleteMode = "Permissive"
action.sessionId = "0aa8b461719c45eea867c0be49565489"
```

```
DeletePrimaryStorageAction.Result res = action.call()
```

5.2.5.2 QueryPrimaryStorage

API Request

URLs

```
GET zstack/v1/primary-storage
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth f889c6a0220c4b34b3007f72bd04e839" \
-X GET http://localhost:8080/zstack/v1/primary-storage?
q=uuid=2160b1e46b0a422fbc9ce6e4a7de1023
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryPrimaryStorage`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "PS1",
      "url": "/Cloud_ps",
      "type": "LocalStorage",
      "state": "Enabled",
      "status": "Connected",
      "attachedClusterUuids": [
        "efbdb96e4f9c457eacf11dcb19923af9"
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

Name	Type	Description	Starting Version
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The detailed description of the resource.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6

Name	Type	Description	Starting Version
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
QueryPrimaryStorageAction action = new QueryPrimaryStorageAction();
action.conditions = asList("uuid=56235f6bf5c24513bce99d4ec824c63f");
action.sessionId = "16f5568fa9aa48e79b3a3ed579787fd0";
QueryPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
QueryPrimaryStorageAction action = QueryPrimaryStorageAction()
action.conditions = ["uuid=52f2459af9ce4c35a0c7de9c98aaebb0"]
action.sessionId = "ade5be353d114f948f976ae43d397815"
```



```
QueryPrimaryStorageAction.Result res = action.call()
```

5.2.5.3 AttachPrimaryStorageToCluster

API Request

URLs

```
POST zstack/v1/clusters/{clusterUuid}/primary-storage/
{primaryStorageUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/
clusters/06fa0d99fd9733409ea9dcb29e070fcf/primary-storage/
e6df72f4eaaa324fb650cb7165bff218
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
clusterUuid	String	url	The cluster UUID.		0.6
primaryStorageUuid	String	url	The primary storage UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "PS1",
    "url": "/Cloud_ps",
    "type": "LocalStorage",
    "state": "Enabled",
    "status": "Connected",
    "attachedClusterUuids": [
      "f0262ff5aeb54cd19e0a33bfaa61f5a4"
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
AttachPrimaryStorageToClusterAction action = new AttachPrimaryStorageToClusterAction();
action.clusterUuid = "473e453a99844ea2a3b65aa637d33841";
action.primaryStorageUuid = "ffd9b14c1c3442f2bde3209cbe9cc195";
action.sessionId = "97c7848a46b44ba89f348f434b5f2288";
AttachPrimaryStorageToClusterAction.Result res = action.call();
```

Python SDK

```
AttachPrimaryStorageToClusterAction action = AttachPrimaryStorageToClusterAction()
action.clusterUuid = "cfae196b0d514f9fbc6ecd5360cb6ccf"
action.primaryStorageUuid = "c122244cd9ab48fa80f61e781e98bb03"
action.sessionId = "c5b2cc8440fc4a6299c5f96a37d38a7f"
AttachPrimaryStorageToClusterAction.Result res = action.call()
```

5.2.5.4 DetachPrimaryStorageFromCluster

API Request

URLs

```
DELETE/v1/clusters/{clusterUuid}/primary-storage/{primaryStorageUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth d4e0a29dc5d94c9ca378b56c1eb538d7" \
-X DELETE http://localhost:8080/zstack/v1/clusters/
d4ff9ff0511b4848870aa648748f9890/primary-storage/
b91bcd212e434b1d97d80df127460f84?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
primaryStorageUuid	String	url	The primary storage UUID.		0.6
clusterUuid	String	url	The cluster UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "PS1",
    "url": "/Cloud_ps",
    "type": "LocalStorage",
    "state": "Enabled",
    "status": "Connected"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
DetachPrimaryStorageFromClusterAction action = new DetachPrimaryStorageFromClusterAction();
action.primaryStorageUuid = "c3444a3237a84d7e904b23d25106855a";
action.clusterUuid = "7ff9675810c84884984ee771d5a5b05c";
action.sessionId = "e678af3ed83b4ba893e0e514d2c07eb5";
DetachPrimaryStorageFromClusterAction.Result res = action.call();
```

Python SDK

```
DetachPrimaryStorageFromClusterAction action = DetachPrimaryStorageFromClusterAction()
action.primaryStorageUuid = "4dbcd51ef01c44728b19c4d5aa06ac59"
action.clusterUuid = "554ac500d71b476e91ecf5440980aba9"
action.sessionId = "21fdcfe391a14d46ad5a7dccc3ddfa"
DetachPrimaryStorageFromClusterAction.Result res = action.call()
```

5.2.5.5 ReconnectPrimaryStorage

API Request

URLs

```
PUT zstack/v1/primary-storage/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectPrimaryStorage": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectPrimaryStorage":{}}' \
http://localhost:8080/zstack/v1/primary-storage/699940f430123e588f4669ad7c17cf65/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The primary storage UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "PS1",
    "url": "/Cloud_ps",
    "type": "LocalStorage",
    "state": "Enabled",
    "status": "Connected",
    "attachedClusterUuids": [
      "830a084ef24849cb8e65ffccb1e20e03"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6

Name	Type	Description	Starting Version
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
ReconnectPrimaryStorageAction action = new ReconnectPrimaryStorageAction();
action.uuid = "b346884f494b41d382e6fc3c1c6d406d";
action.sessionId = "634bb3b8568a4ee1b6f2abd3fc6edf65";
ReconnectPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
ReconnectPrimaryStorageAction action = ReconnectPrimaryStorageAction()
action.uuid = "78b0b8b7ac4f4c3887ee71f0bd159012"
action.sessionId = "97ce6c4f337d458ba25b9c4b1308fc1f"
ReconnectPrimaryStorageAction.Result res = action.call()
```

5.2.5.6 GetPrimaryStorageCapacity

API Request

URLs

```
GET zstack/v1/primary-storage/capacities
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth 68c022afb7f74007980cf23a76fd2fd0" \
-X GET http://localhost:8080/zstack/v1/primary-storage/capacities?
primaryStorageUids=c8fd0638491c4c4ea70762c51d8445b5&all=false
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
zoneUids	List	query	Optional. The zone UUID list.		0.6
clusterUids	List	query	Optional. The cluster UUID list.		0.6
primaryStorageUids	List	query	Optional. The primary storage UUID list.		0.6
all	boolean	query	Optional. When the primary storage UUID list is null, the field is true, which means that all primary storages in the system will be queried.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "totalCapacity": 1.073741824E9,
  "availableCapacity": 9.73078528E8,
  "totalPhysicalCapacity": 1.073741824E9,
  "availablePhysicalCapacity": 9.73078528E8
}
```

}

Name	Type	Description	Starting Version
totalCapacity	long		0.6
availableCapacity	long		0.6
totalPhysicalCapacity	long		0.6
availablePhysicalCapacity	long		0.6
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetPrimaryStorageCapacityAction action = new GetPrimaryStorageCapacityAction();
action.primaryStorageUuids = asList("9e151bee519044c0b19bdfc12d8d24ab");
action.all = false;
action.sessionId = "79627053d567472eaed5de6b16fcdb91";
GetPrimaryStorageCapacityAction.Result res = action.call();
```

Python SDK

```
GetPrimaryStorageCapacityAction action = GetPrimaryStorageCapacityAction()
action.primaryStorageUuids = [f78f7e2087ff437da395fb308db84300]
action.all = false
action.sessionId = "112ffe3fbad14be49c896feb9076dc10"
GetPrimaryStorageCapacityAction.Result res = action.call()
```

5.2.5.7 SyncPrimaryStorageCapacity

API Request

URLs

```
PUT zstack/v1/primary-storage/{primaryStorageUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncPrimaryStorageCapacity": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncPrimaryStorageCapacity":{}}' \
```

```
http://localhost:8080/zstack/v1/primary-storage/36ad940fe805304b85ca8af209b044b5/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
primaryStorageUuid	String	url	The primary storage UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "PS1",
    "url": "/Cloud_ps",
    "availableCapacity": 9.73078528E8,
    "availablePhysicalCapacity": 9.73078528E8,
    "type": "LocalStorage",
    "state": "Enabled",
    "status": "Connected",
    "attachedClusterUuids": [
      "06b22ab47bb74d2d97dba43ccdde8b9a"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The detailed description of the resource.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6

Name	Type	Description	Starting Version
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
SyncPrimaryStorageCapacityAction action = new SyncPrimaryStorageCapacityAction();
action.primaryStorageUuid = "42508a6db24968b4fd7c7a1f4f6859";
action.sessionId = "bd1b393d64bd424c848cc2760c7aef0f";
SyncPrimaryStorageCapacityAction.Result res = action.call();
```

Python SDK

```
SyncPrimaryStorageCapacityAction action = SyncPrimaryStorageCapacityAction()
action.primaryStorageUuid = "695578d15cc04f2a84585deab75d29c7"
action.sessionId = "fdead04edbc741f99c826afc6db003a9"
SyncPrimaryStorageCapacityAction.Result res = action.call()
```

5.2.5.8 ChangePrimaryStorageState

API Request

URLs

```
PUT zstack/v1/primary-storage/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changePrimaryStorageState": {
    "stateEvent": "Disabled"
  }
}
```



```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changePrimaryStorageState":{"stateEvent":"disable"}}' \
http://localhost:8080/zstack/v1/primary-storage/2e9c3a048ce03f5db297da323061a0de/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The primary storage UUID.		0.6
stateEvent	String	body (contained in the changePrimaryStorageState structure)	The target state of the primary storage.	• enable • disable • maintain • deleting	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response**Sample Response**

```

{
  "inventory": {
    "name": "PS1",
    "url": "/Cloud_ps",
    "type": "LocalStorage",
    "state": "Disabled",
    "attachedClusterUuids": [
      "408395dfdebb427e9453048436556a66"
    ]
  }
}

```

```

    }
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The detailed description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
ChangePrimaryStorageStateAction action = new ChangePrimaryStorageStateAction();
action.uuid = "236d97d1752643018266bb4151d6a431";
action.stateEvent = "Disabled";
action.sessionId = "bf409a0349c44104ab3dbb77415847a0";
ChangePrimaryStorageStateAction.Result res = action.call();
```

Python SDK

```
ChangePrimaryStorageStateAction action = ChangePrimaryStorageStateAction()
action.uuid = "5c612d1387af4d13b381db54c7307059"
action.stateEvent = "Disabled"
action.sessionId = "441b4bd8c5e54003b62af7e4c44db8c1"
```

```
ChangePrimaryStorageStateAction.Result res = action.call()
```

5.2.5.9 UpdatePrimaryStorage

API Request

URLs

```
PUT zstack/v1/primary-storage/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updatePrimaryStorage": {
    "name": "New PS1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updatePrimaryStorage":{"name":"New PS1"}}' \
http://localhost:8080/zstack/v1/primary-storage/1ed3e2350ff736918ac97c2a4d7d2f6e/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The primary storage UUID.		0.6
name	String	body (contained in the updatePrim	Optional. The new name of the primary storage.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		aryStorage structure)			
description	String	body (contained in the updatePrimaryStorage structure)	Optional. The new description of the primary storage.		0.6
url	String	body (contained in the updatePrimaryStorage structure)	Optional. The new URL of the primary storage.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "New PS1",
    "url": "/Cloud_ps",
    "type": "LocalStorage",
    "state": "Enabled",
    "status": "Connected",
    "attachedClusterUuids": [
      "31d01fe839da465ca540292132b50209"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

Name	Type	Description	Starting Version
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The detailed description of the resource.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6

Name	Type	Description	Starting Version
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
UpdatePrimaryStorageAction action = new UpdatePrimaryStorageAction();
action.uuid = "7253221c336c4510b97607943f3b1a3c";
action.name = "New PS1";
action.sessionId = "0f4cfa5daeb2408da149a88d99c90df4";
UpdatePrimaryStorageAction.Result res = action.call();
```

Python SDK

```
UpdatePrimaryStorageAction action = UpdatePrimaryStorageAction()
action.uuid = "e75ab68c9201465496fb27c9f6ff234b"
action.name = "New PS1"
action.sessionId = "b18ea5e60dcc445abfb3ffa28761c77e"
```

```
UpdatePrimaryStorageAction.Result res = action.call()
```

5.2.5.10 CleanUpImageCacheOnPrimaryStorage

API Request

URLs

```
PUT zstack/v1/primary-storage/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "cleanUpImageCacheOnPrimaryStorage": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"cleanUpImageCacheOnPrimaryStorage":{}}' \
http://localhost:8080/zstack/v1/primary-storage/06e884ad8dbf3ed0bb061f4645b17075/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The primary storage UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
CleanUpImageCacheOnPrimaryStorageAction action = new CleanUpImageCacheOnPrimaryStorageAction();
action.uuid = "cb50319265d540e19cbf98137fcbca0e";
action.sessionId = "5dc546cb18cc46b885412564a39c512f";
CleanUpImageCacheOnPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
CleanUpImageCacheOnPrimaryStorageAction action = CleanUpImageCacheOnPrimaryStorageAction()
action.uuid = "cd35f62a64cd4daf9397f2e3bf5e910b"
action.sessionId = "e3ef197e97264195903b0fbdf52ae4c7"
CleanUpImageCacheOnPrimaryStorageAction.Result res = action.call()
```

5.2.5.11 CleanUpStorageTrashOnPrimaryStorage

API Request

URLs

```
PUT zstack/v1/primary-storage/{uuid}/storagetrash/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "cleanUpStorageTrashOnPrimaryStorage": {
    "force": false
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"cleanUpStorageTrashOnPrimaryStorage":{"force":false}}' \
http://localhost:8080/zstack/v1/primary-storage/238259a845cb344bbb5ad7013f91d644/storagetrash/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The primary storage UUID.		4.8.0
force	boolean	body (contained in the cleanUpStorageTrashOnPrimaryStorage structure)	Whether or not to force the primary storage to be cleaned.		4.8.0
systemTags	List	body	Optional. The system tags.		4.8.0
userTags	List	body	Optional. The user tags.		4.8.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "result": {
    "pool-2": [
      "E92501AC0F30486282317C3412E27307",
      "876D1F78BB35405DBBFEC61226B13FDA"
    ],
    "pool-1": [
      "09f35ca96dfa4f7d8171a6583bbcc4fe",

```

```

    "7ae6b23ab27e48b7b7abd25c22f1f91a"
  ],
  },
  "total": 4
}

```

Name	Type	Description	Starting Version
success	boolean		4.8.0
result	Map	The collection of successfully cleaned primary storage.	4.8.0
total	Integer	The number of successfully cleaned primary storage.	4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.8.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.8.0
description	String	The brief description of the error.	4.8.0
details	String	The details about the error.	4.8.0
elaboration	String	The reserved field. Default value: null.	4.8.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.8.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.8.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

SDK Sample

Java SDK

```
CleanUpStorageTrashOnPrimaryStorageAction action = new CleanUpStorageTrashOnPrimaryStorageAction();
action.uuid = "238259a845cb344bbb5ad7013f91d644";
action.force = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CleanUpStorageTrashOnPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
CleanUpStorageTrashOnPrimaryStorageAction action = CleanUpStorageTrashOnPrimaryStorageAction()
action.uuid = "238259a845cb344bbb5ad7013f91d644"
action.force = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CleanUpStorageTrashOnPrimaryStorageAction.Result res = action.call()
```

5.2.5.12 GetPrimaryStorageAllocatorStrategies

API Request

URLs

```
GET zstack/v1/primary-storage/allocators/strategies
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth c74da723ad8b47d387c211a4fcbc0697" \
-X GET http://localhost:8080/zstack/v1/primary-storage/allocators/strategies
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "primaryStorageAllocatorStrategies": [
    "DefaultPrimaryStorageAllocationStrategy",
    "LocalStorageAllocatorStrategy"
  ]
}
```

Name	Type	Description	Starting Version
strategies	List		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The detailed description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetPrimaryStorageAllocatorStrategiesAction action = new GetPrimaryStorageAllocatorStrategiesAction();
action.sessionId = "ed5d5f6e4ac14b61a972469e88589b38";
GetPrimaryStorageAllocatorStrategiesAction.Result res = action.call();
```

Python SDK

```
GetPrimaryStorageAllocatorStrategiesAction action = GetPrimaryStorageAllocatorStrategiesAction()
action.sessionId = "78a99afd143f4ffca767a27bf9b3af93"
GetPrimaryStorageAllocatorStrategiesAction.Result res = action.call()
```

5.2.5.13 GetPrimaryStorageTypes

API Request

URLs

```
GET zstack/v1/primary-storage/types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 4b39cdd6eaea4476bf9d93d42ddc4186" \
-X GET http://localhost:8080/zstack/v1/primary-storage/types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "primaryStorageTypes": [
    "LocalStorage",
    "NFS",
    "SharedMountPoint",
    "Ceph"
  ]
}
```

Name	Type	Description	Starting Version
types	List		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The detailed description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetPrimaryStorageTypesAction action = new GetPrimaryStorageTypesAction();  
action.sessionId = "1dccf587f1de4aa998b73bb0b85c3eae";  
GetPrimaryStorageTypesAction.Result res = action.call();
```

Python SDK

```
GetPrimaryStorageTypesAction action = GetPrimaryStorageTypesAction()  
action.sessionId = "0090252c9cf641cc90bd1a3d93dfd6b6"  
GetPrimaryStorageTypesAction.Result res = action.call()
```

5.2.5.14 GetPrimaryStorageCandidatesForVolumeMigration

API Request

URLs

```
GET zstack/v1/primary-storage/volumes/{volumeUuid}/migration-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth 39b0ace2ecc0459c929c8e352ea906f2" \  
-X GET http://localhost:8080/zstack/v1/primary-storage/  
volumes/073f14f2d6dc437b8114faa4223f0ce8/migration-candidates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
volumeUuid	String	url	The volume UUID.		2.2
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "64776c6c7dfd46b091ec387d21b5adb0",
      "name": "PS-1"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventories	List	See inventories .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The detailed description of the error.	2.2

Name	Type	Description	Starting Version
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
zoneUuid	String	The zone UUID.	2.2
name	String	The resource name.	2.2
url	String		2.2
description	String	The detailed description of the resource.	2.2
totalCapacity	Long		2.2
availableCapacity	Long		2.2
totalPhysicalCapacity	Long		2.2
availablePhysicalCapacity	Long		2.2
systemUsedCapacity	Long		2.2
type	String		2.2
state	String		2.2
status	String		2.2
mountPath	String		2.2
createDate	Timestamp	The creation date.	2.2

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	2.2
attachedClusterUuids	List		2.2

SDK Sample

Java SDK

```
GetPrimaryStorageCandidatesForVolumeMigrationAction action = new
GetPrimaryStorageCandidatesForVolumeMigrationAction();
action.volumeUuid = "06b0f7d7098349b5ba336013aea319f5";
action.sessionId = "5869e8a6986b40c8be1ac3a520a6a9a1";
GetPrimaryStorageCandidatesForVolumeMigrationAction.Result res =
action.call();
```

Python SDK

```
GetPrimaryStorageCandidatesForVolumeMigrationAction action =
GetPrimaryStorageCandidatesForVolumeMigrationAction()
action.volumeUuid = "8800d0ffad8f42d7911347ca0af8e224"
action.sessionId = "a1b986a4bb5b409ba84951d3a3c1ed54"
GetPrimaryStorageCandidatesForVolumeMigrationAction.Result res =
action.call()
```

5.2.5.15 GetHostCandidatesForVmMigration

API Request

URLs

```
GET zstack/v1/primary-storage/hosts/{vmInstanceUuid}/migration-
candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-storage/
hosts/73e5ee655c3d3ef7b9fc0f3a3b560270/migration-candidates?
dstPrimaryStorageUuid=cc8db724e1b334568026ca38d5c27b0f
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmInstance Uuid	String	url	The UUID of the VM instance.		4.0.0
dstPrimary StorageUuid	String	query	The UUID of the destination primary storage.		4.0.0
limit	Integer	query	Optional. The maximum number of returned hosts.		4.0.0
systemTags	List	query	Optional. The system tags.		4.0.0
userTags	List	query	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "HOST-1",
      "uuid": "b72c8853294a3e08abe838c58a61efb9"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventories	List	See inventories	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The detailed description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventories

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the	4.0.0
uuid	String	The host UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
description	String	The detailed description of the host.	4.0.0
managementIp	String		4.0.0
hypervisorType	String		4.0.0
state	String		4.0.0
status	String		4.0.0
totalCpuCapacity	Long		4.0.0

Name	Type	Description	Starting Version
availableCpuCapacity	Long		4.0.0
cpuSockets	Integer		4.0.0
totalMemoryCapacity	Long		4.0.0
availableMemoryCapacity	Long		4.0.0
cpuNum	Integer		4.0.0
createDate	Timestamp	The time when the host was created.	4.0.0
lastOpDate	Timestamp	The time when the host was last modified.	4.0.0

SDK Sample

Java SDK

```
GetHostCandidatesForVmMigrationAction action = new GetHostCandidatesForVmMigrationAction();
action.vmInstanceUuid = "73e5ee655c3d3ef7b9fc0f3a3b560270";
action.dstPrimaryStorageUuid = "cc8db724e1b334568026ca38d5c27b0f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetHostCandidatesForVmMigrationAction.Result res = action.call();
```

Python SDK

```
GetHostCandidatesForVmMigrationAction action = GetHostCandidatesForVmMigrationAction()
action.vmInstanceUuid = "73e5ee655c3d3ef7b9fc0f3a3b560270"
action.dstPrimaryStorageUuid = "cc8db724e1b334568026ca38d5c27b0f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetHostCandidatesForVmMigrationAction.Result res = action.call()
```

5.2.5.16 PrimaryStorageMigrateVolume

API Request

URLs

```
PUT zstack/v1/primary-storage/volumes/{volumeUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "primaryStorageMigrateVolume": {
    "dstPrimaryStorageUuid": "aafceb95938e42a6be5475f19a92eec9"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"primaryStorageMigrateVolume":
{"dstPrimaryStorageUuid":"ed4370b338da37d8a537bfb738e736f2"}}' \
http://localhost:8080/zstack/v1/primary-storage/volumes/
b6e9b22601f7319fadd329d065b0cd1b/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
volumeUuid	String	url	The volume UUID.		2.2
dstPrimaryStorageUuid	String	body (contained in the primaryStorageMigrateVolume)	The UUID of the destination primary storage.		2.2

Name	Type	Location	Description	Optional Value	Starting Version
		eVolume structure)			
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5fa2d1c7adcd4963b1f9016075764fcb",
    "name": "test-volume",
    "primaryStorageUuid": "6ebc0be6faaa41f28874daa6076322bd",
    "vmInstanceUuid": "2c528326ddcf43dd9bdd1d80da7a15ef",
    "diskOfferingUuid": "2af3082d23444be9833c32c53ea2b1ed",
    "rootImageUuid": "254bdaf01a33407082d8afe540b76796",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d
2fa65700f22e/vol-5fa2d1c7adcd4963b1f9016075764fcb/5fa2d1c7adcd4963b1f9
016075764fcb.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Oct 26, 2017 3:38:58 PM",
    "lastOpDate": "Oct 26, 2017 3:38:58 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventory	VolumeInventory	See inventory .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.2
description	String	The detailed description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
primaryStorageUuid	String	The primary storage UUID.	2.2
vmInstanceUuid	String	The VM instance UUID.	2.2
diskOfferingUuid	String	The disk offering UUID .	2.2
rootImageUuid	String		2.2
installPath	String		2.2

Name	Type	Description	Starting Version
type	String		2.2
format	String		2.2
size	Long		2.2
actualSize	Long		2.2
deviceId	Integer		2.2
state	String		2.2
status	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
isShareable	Boolean		2.2

SDK Sample

Java SDK

```
PrimaryStorageMigrateVolumeAction action = new PrimaryStorageMigrateVolumeAction();
action.volumeUuid = "af5d94f0f24c45f79280fc4661919b2c";
action.dstPrimaryStorageUuid = "e8d756d48e5d48a69f5bec6221ddbc79";
action.sessionId = "c186caf64d0043158b2c5ea9784697ab";
PrimaryStorageMigrateVolumeAction.Result res = action.call();
```

Python SDK

```
PrimaryStorageMigrateVolumeAction action = PrimaryStorageMigrateVolumeAction()
action.volumeUuid = "7e170d744c014517b3b38f20111f400d"
action.dstPrimaryStorageUuid = "8c2cc857b81d4d75b404809e57e02deb"
action.sessionId = "ec12693efdf14d72b2a59de9c039870a"
```

```
PrimaryStorageMigrateVolumeAction.Result res = action.call()
```

5.2.5.17 PrimaryStorageMigrateVm

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "primaryStorageMigrateVm": {
    "dstPrimaryStorageUuid": "21e2f323f0f73feca4269e4056497281",
    "dstHostUuid": "2208f64378cc3b5fa4a11609ca4ef524",
    "withDataVolumes": true,
    "withSnapshots": false,
    "downTime": 300,
    "bandwidth": 0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"primaryStorageMigrateVm":
{"dstPrimaryStorageUuid": "21e2f323f0f73feca4269e4056497281", "dstHostUuid": "2208f6
http://localhost:8080/zstack/v1/vm-
instances/332389a8b7453ccd85e625ef581694e9/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
vmInstance Uuid	String	url	The VM instance UUID		3.1.0

Name	Type	Location	Description	Valid Value	Starting Version
dstPrimaryStorageUuid	String	body (contained in the primaryStorageMigrateVm structure)	The UUID of the destination primary storage.		3.1.0
withDataVolumes	boolean	body (contained in the primaryStorageMigrateVm structure)	Optional. Migrates the VM instance with its data volumes.		3.1.0
withSnapshots	boolean	body (contained in the primaryStorageMigrateVm structure)	Optional. Migrates the VM instance with its snapshots.		3.1.0
dstHostUuid	String	body (contained in the primaryStorageMigrateVm structure)	Optional.		4.0.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0
strategy	String	body (contained in the primaryStorageMigrateVm structure)			4.6.0

Name	Type	Location	Description	Valid Value	Starting Version
		eVm structure)			
downTime	Integer	body (contained in the migrateVm structure)	Optional. The VM down time during the hot migration.		4.6.21
bandwidth	long	body (contained in the migrateVm structure)	Optional. The bandwidth of migration across primary storage, in the unit of MB /s		4.7.11

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "f483af349d39312c8078d142c40fb721",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "b7280443258337bb9e8d2abf4a014644",
    "clusterUuid": "a2c0ace5be2d35b5a365067a0127b377",
    "imageUuid": "14fb13b692e837dfa31d75ffc02d4d4d",
    "hostUuid": "f0690203b1463867bcb2f5a48a1fa91a",
    "lastHostUuid": "655acef664af39e9b6b7fec0d4de56c0",
    "instanceOfferingUuid": "772a66f21ef23ba7a69ad292e4489ebb",
    "rootVolumeUuid": "65b10a950f1336f48b770f98b25176eb",
    "platform": "Linux",
    "defaultL3NetworkUuid": "80c8af5ff0a135e18a3e7a4d2223ebd2",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8589934592,
    "cpuNum": 1,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 9:20:57 AM",
    "lastOpDate": "Nov 14, 2017 9:20:57 AM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "b16455db309330289acb58edbfabd4b7",
        "vmInstanceUuid": "f483af349d39312c8078d142c40fb721",
        "usedIpUuid": "27787a727c143a7aada42e6c3b111887",
        "l3NetworkUuid": "80c8af5ff0a135e18a3e7a4d2223ebd2",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "hypervisorType": "KVM",

```

```

    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0,
    "state": "enable",
    "createDate": "Nov 14, 2017 9:20:57 AM",
    "lastOpDate": "Nov 14, 2017 9:20:57 AM"
  },
],
"allVolumes": [
  {
    "uuid": "65b10a950f1336f48b770f98b25176eb",
    "name": "Root-Volume-For-VM-f483af349d39312c8078d142c40fb721",
    "primaryStorageUuid": "55245463f914331c954909475279c3b0",
    "vmInstanceUuid": "f483af349d39312c8078d142c40fb721",
    "diskOfferingUuid": "b2cb37282f5034fb808dff68dc18db9e",
    "rootImageUuid": "14fb13b692e837dfa31d75ffc02d4d4d",
    "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-65b10a950f1336f48b770f98b25176eb/65b10a950f
1336f48b770f98b25176eb.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 107374182400,
    "actualSize": 21474836480,
    "deviceId": 0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 9:20:57 AM",
    "lastOpDate": "Nov 14, 2017 9:20:57 AM"
  },
  {
    "uuid": "97bf368f3bde3490b0c08d37ac8bc747",
    "name": "Data-Volume-For-VM-f483af349d39312c8078d142c40fb721",
    "primaryStorageUuid": "4df2eddd6ac1307ebbf27d0044f72e9",
    "vmInstanceUuid": "f483af349d39312c8078d142c40fb721",
    "diskOfferingUuid": "06ea8f5a59843b8aa4d18d9c6d2b7a1d",
    "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-97bf368f3bde3490b0c08d37ac8bc747/97bf368f3b
de3490b0c08d37ac8bc747.qcow2",
    "type": "Data",
    "format": "qcow2",
    "size": 536870912000,
    "actualSize": 107374182400,
    "deviceId": 1,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 9:20:57 AM",
    "lastOpDate": "Nov 14, 2017 9:20:57 AM"
  }
]
}
}

```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.1.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	VmInstanceInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The detailed description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
architecture	String		4.6.21
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
guestOsType	String		4.6.21
vmNics	List	See vmNics .	3.1.0
allVolumes	List	See allVolumes .	3.1.0
vmCdRoms	List	See vmCdRoms .	4.6.21

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
vmInstanceUuid	String	The VM instance UUID.	3.1.0
l3NetworkUuid	String	The L3 network UUID.	3.1.0

Name	Type	Description	Starting Version
ip	String		3.1.0
mac	String		3.1.0
netmask	String		3.1.0
gateway	String		3.1.0
metaData	String		3.1.0
deviceId	Integer		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
usedIps	List	See usedIps .	4.6.21

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
description	String	The detailed description of the resource.	3.1.0
primaryStorageUuid	String	The primary storage UUID.	3.1.0
vmInstanceUuid	String	The VM instance UUID.	3.1.0
diskOfferingUuid	String	The disk offering UUID.	3.1.0
rootImageUuid	String		3.1.0
installPath	String		3.1.0
type	String		3.1.0
format	String		3.1.0
size	Long		3.1.0
actualSize	Long		3.1.0
deviceId	Integer		3.1.0
state	String		3.1.0
status	String		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
isShareable	Boolean		3.1.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.21
vmInstanceUuid	String	The VM instance UUID.	4.6.21
deviceId	Integer		4.6.21
isoUuid	String		4.6.21
isoInstallPath	String		4.6.21

Name	Type	Description	Starting Version
name	String	The resource name.	4.6.21
description	String	The detailed description of the resource.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21

SDK Sample

Java SDK

```
PrimaryStorageMigrateVmAction action = new PrimaryStorageMigrateVmAction();
action.vmInstanceUuid = "332389a8b7453ccd85e625ef581694e9";
action.dstPrimaryStorageUuid = "21e2f323f0f73fec4269e4056497281";
action.dstHostUuid = "2208f64378cc3b5fa4a11609ca4ef524";
action.withDataVolumes = true;
action.withSnapshots = false;
action.downtime = 300;
action.bandwidth = 0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PrimaryStorageMigrateVmAction.Result res = action.call();
```

Python SDK

```
PrimaryStorageMigrateVmAction action = PrimaryStorageMigrateVmAction()
action.vmInstanceUuid = "332389a8b7453ccd85e625ef581694e9"
action.dstPrimaryStorageUuid = "21e2f323f0f73fec4269e4056497281"
action.dstHostUuid = "2208f64378cc3b5fa4a11609ca4ef524"
action.withDataVolumes = true
action.withSnapshots = false
action.downtime = 300
action.bandwidth = 0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
PrimaryStorageMigrateVmAction.Result res = action.call()
```

5.2.5.18 GetPrimaryStorageCandidatesForVmMigration

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceUuid}/storage-migration-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/2ac3852f503a339f857c9381d881bd91/storage-migration-candidates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		3.1.0
withDataVolumes	boolean	body (contained in the primaryStorageMigrateVm structure)	Optional. Migrates the VM instance with its data volumes.		3.7.0
migrateStorageOnly	boolean	body (contained in the primaryStorageMigrateVm structure)	Optional. Specifies whether to migrate only across primary storage		4.4.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		3.1.0
userTags	List	query	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "19e075320ee9327182fcb82a8b0a078b",
      "name": "PS-1"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The detailed description of the error.	3.1.0
details	String	The details about the error.	3.1.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
zoneUuid	String	The zone UUID.	3.1.0
name	String	The resource name.	3.1.0
url	String		3.1.0
description	String	The detailed description of the resource.	3.1.0
totalCapacity	Long		3.1.0
availableCapacity	Long		3.1.0
totalPhysicalCapacity	Long		3.1.0
availablePhysicalCapacity	Long		3.1.0
systemUsedCapacity	Long		3.1.0
type	String		3.1.0
state	String		3.1.0
status	String		3.1.0
mountPath	String		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

Name	Type	Description	Starting Version
attachedClusterUuids	List		3.1.0

SDK Sample

Java SDK

```
GetPrimaryStorageCandidatesForVmMigrationAction action = new
GetPrimaryStorageCandidatesForVmMigrationAction();
action.vmInstanceUuid = "2ac3852f503a339f857c9381d881bd91";
action.withDataVolumes = true;
action.migrateStorageOnly = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetPrimaryStorageCandidatesForVmMigrationAction.Result res = action.
call();
```

Python SDK

```
GetPrimaryStorageCandidatesForVmMigrationAction action = GetPrimary
StorageCandidatesForVmMigrationAction()
action.vmInstanceUuid = "2ac3852f503a339f857c9381d881bd91"
action.withDataVolumes = true
action.migrateStorageOnly = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetPrimaryStorageCandidatesForVmMigrationAction.Result res = action.
call()
```

5.2.5.19 GetPrimaryStorageLicenseInfo

API Request

URLs

```
GET zstack/v1/primary-storage/{uuid}/license
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-
storage/9b624d6e4ca53a4aa10bfc341281d0ef/license
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The primary storage UUID.		3.6.0
systemTags	List	query	Optional. The system tags.		3.6.0
userTags	List	query	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "uuid": "28d49729434c388b987efbb84b5b0ee6",
  "name": "Ceph",
  "expireTime": ""
}
```

Name	Type	Description	Starting Version
uuid	String		3.6.0
name	String		3.6.0
expireTime	String		3.6.0
success	boolean		3.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0

Name	Type	Description	Starting Version
description	String	The detailed description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

SDK Sample

Java SDK

```
GetPrimaryStorageLicenseInfoAction action = new GetPrimaryStorageLicenseInfoAction();
action.uuid = "9b624d6e4ca53a4aa10bfc341281d0ef";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetPrimaryStorageLicenseInfoAction.Result res = action.call();
```

Python SDK

```
GetPrimaryStorageLicenseInfoAction action = GetPrimaryStorageLicenseInfoAction()
action.uuid = "9b624d6e4ca53a4aa10bfc341281d0ef"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetPrimaryStorageLicenseInfoAction.Result res = action.call()
```

5.2.5.20 GetPrimaryStorageUsageReport

API Request

URLs

```
GET zstack/v1/primary-storage/{primaryStorageUuid}/usage/report
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/primary-
storage/902707d77b6e36179ee0117e6614e52f/usage/report?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
primaryStorageUuid	String	url	The primary storage UUID.		4.7.21
uris	List	query	Optional. The storage protocol.		4.7.21
systemTags	List	query	Optional. The system tags.		4.7.21
userTags	List	query	Optional. The user tags.		4.7.21

API Response

Sample Response

```
{
  "uriUsageForecast": {},
  "usageReport": {}
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21

Name	Type	Description	Starting Version
uriUsageForecast	Map	See uriUsageForecast .	4.7.21
usageReport	UsageReport	See usageReport	4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21

#uriUsageForecast

Name	Type	Description	Starting Version
usedPhysicalCapacitiesForecast	List		4.7.21
UsedPhysicalCapacitiesHistory	List		4.7.21
TotalPhysicalCapacitiesHistory	List		4.7.21
startTime	Long		4.7.21
interval	Long		4.7.21

#usageReport

Name	Type	Description	Starting Version
usedPhysicalCapacitiesForecast	List		4.7.21
UsedPhysicalCapacitiesHistory	List		4.7.21
TotalPhysicalCapacitiesHistory	List		4.7.21
startTime	Long		4.7.21
interval	Long		4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The detailed description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

SDK Sample

Java SDK

```
GetPrimaryStorageLicenseInfoAction action = new GetPrimaryStorageLicenseInfoAction();
action.uuid = "9b624d6e4ca53a4aa10bfc341281d0ef";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetPrimaryStorageLicenseInfoAction.Result res = action.call();
```

Python SDK

```
GetPrimaryStorageLicenseInfoAction action = GetPrimaryStorageLicenseInfoAction()
action.uuid = "9b624d6e4ca53a4aa10bfc341281d0ef"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetPrimaryStorageLicenseInfoAction.Result res = action.call()
```

5.2.5.21 Local Storage Operations

5.2.5.21.1 AddLocalPrimaryStorage

API Request

URLs

```
POST zstack/v1/primary-storage/local-storage
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "/Cloud_ps",
    "name": "PS1",
    "zoneUuid": "a71cbd7404e9474c81ed45d167b7eab8"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"/Cloud_ps","name":"PS1","zoneUuid":"3b9a66322185343e9068b2bfd185b690"}}' \
http://localhost:8080/zstack/v1/primary-storage/local-storage
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained in the params structure)	The URL of the local storage.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the local storage.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the local storage.		0.6
type	String	body (contained in the params structure)	Optional. The primary storage type: LocalStorage.		0.6
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the local storage will use this field as the UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "PS1",
    "url": "/Cloud_ps",
    "type": "LocalStorage",
    "state": "Enabled",
    "status": "Connected",
```

```

"attachedClusterUuids": [
  "562116d368c8467c95c53321757538dc"
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The short description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
AddLocalPrimaryStorageAction action = new AddLocalPrimaryStorageAction();
action.url = "/Cloud_ps";
action.name = "PS1";
action.zoneUuid = "e9762e3b848e4d0a8f36f1b2fe888b14";
action.sessionId = "01b750dce9e94191abd9216fe8c5e77b";
AddLocalPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
AddLocalPrimaryStorageAction action = AddLocalPrimaryStorageAction()
action.url = "/Cloud_ps"
action.name = "PS1"
action.zoneUuid = "bd54c662683b4144b33a72a357064387"
```



```
action.sessionId = "b6dd1fd80b7144adbf23d4b1089d978d"
AddLocalPrimaryStorageAction.Result res = action.call()
```

5.2.5.21.2 QueryLocalStorageResourceRef

API Request

URLs

```
GET zstack/v1/primary-storage/local-storage/resource-refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 7642f366a18e41d6b9144fa25b4e32fe" \
-X GET http://localhost:8080/zstack/v1/primary-storage/local-storage/
resource-refs?q=uuid=18b4bc6daf0542b09b6756ddce3f87cd
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryLocalStorageResourceRef`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryLocalStorageResourceRefAction action = new QueryLocalStorageResourceRefAction();
action.conditions = asList("uuid=46e9ff5cd91a404382107d52a1947614");
action.sessionId = "aaaf8ed4fe224287afff3c38083279a9";
```

```
QueryLocalStorageResourceRefAction.Result res = action.call();
```

Python SDK

```
QueryLocalStorageResourceRefAction action = QueryLocalStorageResourceRefAction()
action.conditions = ["uuid=8249a62afd0e440981775795244ab276"]
action.sessionId = "62b361c83e6a4685b13f629f3d402ed7"
QueryLocalStorageResourceRefAction.Result res = action.call()
```

5.2.5.21.3 LocalStorageMigrateVolume

API Request

URLs

```
PUT zstack/v1/primary-storage/local-storage/volumes/{volumeUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "localStorageMigrateVolume": {
    "destHostUuid": "511e02b9b8c9427c9fbbac55b8c7ec62"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"localStorageMigrateVolume":
{"destHostUuid":"58118467f70733cdb19f39bd07868384"}}' \
http://localhost:8080/zstack/v1/primary-storage/local-storage/volumes/
f15736d2850536f3a6ea1d68f7c89b7f/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
volumeUuid	String	url	The volume UUID.		0.6
destHostUuid	String	body (contained in the localStorageMigrateVolume structure)	The UUID of the destination host.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "resourceUuid": "bad5e950cf014275bf9ba6e4cfe78a97",
    "primaryStorageUuid": "81d893539a6b4ce7b9957c7a5d6c5df8",
    "hostUuid": "9d250b88ae90449db567cfa18a75fecc",
    "size": 2.4035328E7
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LocalStorageResource RefInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The short description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
resourceUuid	String		0.6
primaryStorageUuid	String	The local storage UUID.	0.6
hostUuid	String	The host UUID.	0.6
size	Long		0.6
resourceType	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
LocalStorageMigrateVolumeAction action = new LocalStorageMigrateVolumeAction();
action.volumeUuid = "1d4825d4845c4bba81033de367f0a03c";
action.destHostUuid = "e82e6f37aa3b472ab36b32962b2ba44c";
```

```
action.sessionId = "74b8b0a565c542e8bc146d7d9c06c764";
LocalStorageMigrateVolumeAction.Result res = action.call();
```

Python SDK

```
LocalStorageMigrateVolumeAction action = LocalStorageMigrateV
olumeAction()
action.volumeUuid = "85f9e2cb4d2640b3a5fe4ec74ebccd22"
action.destHostUuid = "f841732d6c604d12bf2cbbb458f09bee"
action.sessionId = "535bc181a3aa41a0989ac795f58ba664"
LocalStorageMigrateVolumeAction.Result res = action.call()
```

5.2.5.21.4 GetLocalStorageHostDiskCapacity

API Request

URLs

```
GET zstack/v1/primary-storage/local-storage/{primaryStorageUuid}/
capacities
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth c5115e16f4a44fb6a66bba611f888eb3" \
-X GET http://localhost:8080/zstack/v1/primary-storage/
local-storage/b839f809d5954d47aecf0b0d56fb98fa/capacities?
hostUuid=b3a59363895143cf847518a0badd3ea3
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostUuid	String	query	Optional. The host UUID.		0.6
primaryStorageUuid	String	url	The local storage UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "hostUuid": "02b36a53204d496290c4f2f8b31a7575",
      "totalCapacity": 1.073741824E9,
      "availableCapacity": 9.73078528E8,
      "totalPhysicalCapacity": 1.073741824E9,
      "availablePhysicalCapacity": 9.73078528E8
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The short description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current	0.6

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
hostUuid	String	The host UUID.	0.6
totalCapacity	long		0.6
availableCapacity	long		0.6
totalPhysicalCapacity	long		0.6
availablePhysicalCapacity	long		0.6

SDK Sample

Java SDK

```

GetLocalStorageHostDiskCapacityAction action = new GetLocalStorageHostDiskCapacityAction();
action.hostUuid = "e63ea47c5aa14106a6abd89ddc8f43de";
action.primaryStorageUuid = "a193ec73e0824726bc30fa88f7f906cc";
action.sessionId = "0d48347e758c4089a85b586f6d2c0953";
GetLocalStorageHostDiskCapacityAction.Result res = action.call();

```

Python SDK

```

GetLocalStorageHostDiskCapacityAction action = GetLocalStorageHostDiskCapacityAction()
action.hostUuid = "fbaace8b570a4be6998dc376b95dcdf1"
action.primaryStorageUuid = "71d63b28517243538d83c326bc21423a"
action.sessionId = "cc34ee291d8a4d7bad091c4a66d97094"

```

```
GetLocalStorageHostDiskCapacityAction.Result res = action.call()
```

5.2.5.21.5 LocalStorageGetVolumeMigratableHosts

API Request

URLs

```
GET zstack/v1/volumes/{volumeUuid}/migration-target-hosts
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 47c467d5c9944985bfbfead8d44cfec2" \
-X GET http://localhost:8080/zstack/v1/volumes/
ef7fe562459146d6bb13078821d451a8/migration-target-hosts?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
volumeUuid	String	url	The volume UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```



```
}
```

SDK Sample

Java SDK

```
LocalStorageGetVolumeMigratableHostsAction action = new LocalStorageGetVolumeMigratableHostsAction();
action.volumeUuid = "dd15184d915c422686da18415b194ce9";
action.sessionId = "1ce8dcd82213420ba5aea5c488834eba";
LocalStorageGetVolumeMigratableHostsAction.Result res = action.call();
```

Python SDK

```
LocalStorageGetVolumeMigratableHostsAction action = LocalStorageGetVolumeMigratableHostsAction()
action.volumeUuid = "19a3d12dc45540f997ac0c6ad0cfb8d7"
action.sessionId = "e6d54fe5d8424c45b723f65a1136d23e"
LocalStorageGetVolumeMigratableHostsAction.Result res = action.call()
```

5.2.5.22 NFS Primary Storage Operations

5.2.5.22.1 AddNfsPrimaryStorage

API Request

URLs

```
POST zstack/v1/primary-storage/nfs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "192.168.0.25:/share/nfs",
    "name": "PS1",
    "type": "NFS",
    "zoneUuid": "4539fbc9b2704ef0a9ee7ee30af7c64e"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"192.168.0.25:/share/
nfs","name":"PS1","type":"NFS","zoneUuid":"9ce5da0042333fcaa16e0f7ff20aba13"}}'
http://localhost:8080/zstack/v1/primary-storage/nfs
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained in the params structure)	The public URL of NFS . Format: nfs-host:/path/to/export.		0.6
name	String	body (contained in the params structure)	The name of the NFS primary storage.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the NFS primary storage.		0.6
type	String	body (contained in the params structure)	Optional. The primary storage type: NFS.		0.6
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the NFS primary storage will		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			use this field as the UUID.		
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "PS1",
    "url": "/Cloud_ps",
    "type": "LocalStorage",
    "state": "Enabled",
    "status": "Connected",
    "attachedClusterUids": [
      "d949efe47c4141508073e2d77f005211"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The short description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
AddNfsPrimaryStorageAction action = new AddNfsPrimaryStorageAction();
action.url = "192.168.0.25:/share/nfs";
action.name = "PS1";
action.type = "NFS";
action.zoneUuid = "af419954499e4b92b30a9a1467ef83a8";
action.sessionId = "03c711c7f3c84733a032d86796e7bdee";
AddNfsPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
AddNfsPrimaryStorageAction action = AddNfsPrimaryStorageAction()
action.url = "192.168.0.25:/share/nfs"
action.name = "PS1"
action.type = "NFS"
action.zoneUuid = "57d530e766014126861c6873ea6fbc7d"
action.sessionId = "4b9d819194df4e57821921721a856e2d"
AddNfsPrimaryStorageAction.Result res = action.call()
```

5.2.5.23 Shared Mount Point Primary Storage Operations

5.2.5.23.1 AddSharedMountPointPrimaryStorage

API Request

URLs

```
POST zstack/v1/primary-storage/smp
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "/smp_mountpoint",
    "name": "smp",
    "type": "SharedMountPoint",
    "zoneUuid": "f0e339a95f5c4e8a913737160c20548d"
  },
}
```

```
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"/
smp_mountpoint","name":"smp","type":"SharedMountPoint","zoneUuid":"80396633969c30
\
http://localhost:8080/zstack/v1/primary-storage/smp' \
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained in the params structure)	The local URL of the Shared Mount Point primary storage.		0.6
name	String	body (contained in the params structure)	The name of the Shared Mount Point primary storage.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the Shared Mount Point primary storage.		0.6
type	String	body (contained in the params structure)	Optional. The primary storage type: Shared Mount Point.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the Shared Mount Point primary storage.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "PS1",
    "url": "/Cloud_ps",
    "type": "SharedMountPoint",
    "state": "Enabled",
    "status": "Connected",
    "attachedClusterUuids": [
      "50028186764548f1b5b49379acaddcda"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The short description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6

Name	Type	Description	Starting Version
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
AddSharedMountPointPrimaryStorageAction action = new AddSharedMountPointPrimaryStorageAction();
action.url = "/smp_mountpoint";
action.name = "smp";
action.type = "SharedMountPoint";
action.zoneUuid = "8c54cbec38cb4704b3eb9703a8589637";
action.sessionId = "bb400831e7ce4ca19dca6469845770be";
AddSharedMountPointPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
AddSharedMountPointPrimaryStorageAction action = AddSharedMountPointPrimaryStorageAction()
action.url = "/smp_mountpoint"
action.name = "smp"
action.type = "SharedMountPoint"
action.zoneUuid = "7fa8ff29d2db43b783c36800990bf6d8"
action.sessionId = "26ab143d25144285b1bde8752b761bf9"
```

```
AddSharedMountPointPrimaryStorageAction.Result res = action.call()
```

5.2.5.24 Ceph Primary Storage Operations

5.2.5.24.1 AddCephPrimaryStorage

API Request

URLs

```
POST zstack/v1/primary-storage/ceph
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "monUrls": [
      "root:password@localhost/?monPort\u003d7777"
    ],
    "rootVolumePoolName": "zs-images",
    "dataVolumePoolName": "zs-data-volume",
    "imageCachePoolName": "zs-image-cache",
    "name": "My Ceph Primary Storage",
    "zoneUuid": "d42197a462c34a44989bdf38d5aa2424"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"monUrls":["root:password@localhost/?monPort=7777"],"rootVolumePoolName":"zs-images","dataVolumePoolName":"zs-data-volume","imageCachePoolName":"zs-image-cache","name":"My Ceph Primary Storage","zoneUuid":"251a3dffccaf39fc8d190eedcf4395bf"}}' \
http://localhost:8080/zstack/v1/primary-storage/ceph
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
monUrls	List	body (contained in the params structure)	The URL list of the Ceph monitor daemon (Ceph mon).		0.6
rootVolume PoolName	String	body (contained in the params structure)	Optional. The name of the Ceph pool that is available for root volumes.		0.6
dataVolume PoolName	String	body (contained in the params structure)	Optional. The name of the Ceph pool that is available for data volumes.		0.6
imageCache PoolName	String	body (contained in the params structure)	Optional. The name of the Ceph pool that is available for image caches.		0.6
url	String	body (contained in the params structure)	The reserved field.		0.6
name	String	body (contained in the params structure)	The name of the Ceph primary storage.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the Ceph primary storage.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional. The primary storage type: Ceph.		0.6
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the Ceph primary storage will use this field as the UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you add a Ceph primary storage to ZStack Cloud, you can specify the **manufacturer** option to **SystemTags** to identify the type of the Ceph primary storage, for example, xsky, sandstone, or open-source.
 - Format: `ceph::manufacturer::Platform`
 - Example: `ceph::manufacturer::xsky`
- When you add a Ceph primary storage to ZStack Cloud, you can specify the **thirdParty Platform** option to **SystemTags** to identify the type of the Ceph primary storage to be xsky. Then you can use a Cloud API to call the SDK of the xsky Ceph primary storage.
 - Format: `ceph::thirdPartyPlatform::TOKEN`
 - Example: `ceph::thirdPartyPlatform::68b329da9893e34099c7d8ad5cb9c940`

API Response

Sample Response

```
{
  "inventory": {
    "name": "Ceph-1",
    "url": "not used",
    "type": "Ceph",
    "state": "Enabled",
    "status": "Connected",
    "attachedClusterUuids": [
      "2d8583d86bd1472e8ec0e04e26ea273f"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
AddCephPrimaryStorageAction action = new AddCephPrimaryStorageAction();
action.monUrls = asList("root:password@localhost/?monPort=7777");
action.rootVolumePoolName = "zs-images";
action.dataVolumePoolName = "zs-data-volume";
action.imageCachePoolName = "zs-image-cache";
action.name = "My Ceph Primary Storage";
action.zoneUuid = "88b49879acd34e11afa5bb3ea9164d5a";
action.sessionId = "33a01ee65ac64450940359dc3181f9b1";
AddCephPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
AddCephPrimaryStorageAction action = AddCephPrimaryStorageAction()
action.monUrls = [root:password@localhost/?monPort=7777]
action.rootVolumePoolName = "zs-images"
action.dataVolumePoolName = "zs-data-volume"
action.imageCachePoolName = "zs-image-cache"
action.name = "My Ceph Primary Storage"
action.zoneUuid = "0f05052514554462b437f9cfa272f57f"
action.sessionId = "cb3d5ecb63634ca093ea223c55e6a30a"
AddCephPrimaryStorageAction.Result res = action.call()
```

5.2.5.24.2 QueryCephPrimaryStorage

API Request

URLs

```
GET zstack/v1/primary-storage/ceph
GET zstack/v1/primary-storage/ceph/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 9b17423dbac84ff4ace2e0d5f4d9e0d2" \
-X GET http://localhost:8080/zstack/v1/primary-storage/ceph?
q=uuid=c7b3cbd9ae3e44bb9536728191761cb3
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth c0e6df86e0b34164b3e0471d7b0cdcb4" \
-X GET http://localhost:8080/zstack/v1/primary-storage/
ceph/1ffb7b09c405477b95563abfcad506a0
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryCephPrimaryStorage`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "Ceph-1",
      "url": "not used",
      "type": "Ceph",
      "state": "Enabled",
      "status": "Connected",
      "attachedClusterUuids": [
        "1b70bb2e338f4a278b9efadda42ad26f"
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
QueryCephPrimaryStorageAction action = new QueryCephPrimaryStorageAction();
action.conditions = asList("uuid=d351d433b5974116a4c9649ef5b89e64");
action.sessionId = "172c3d6b977b4cbfbd401ace20ad0442";
QueryCephPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
QueryCephPrimaryStorageAction action = QueryCephPrimaryStorageAction()
action.conditions = ["uuid=aa79df396a4943f8b9066c4d8057565d"]
action.sessionId = "0aca367c9e7946d29a63044684d5dd71"
QueryCephPrimaryStorageAction.Result res = action.call()
```

5.2.5.24.3 AddMonToCephPrimaryStorage

API Request

URLs

```
POST zstack/v1/primary-storage/ceph/{uuid}/mons
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "monUrls": [
      "10.0.1.3"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"monUrls":["10.0.1.3"]}}' \
```

```
http://localhost:8080/zstack/v1/primary-storage/
ceph/6496e4b29793368dbacf388d83446acc/mons
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the Ceph primary storage.		0.6
monUrls	List	body (contained in the params structure)	The URL list of the Ceph mon (monitor daemon).		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddMonToCephPrimaryStorageAction action = new AddMonToCephPrimaryStorageAction();
action.uuid = "d0e3946e312a40c6af85da9163ac2519";
action.monUrls = asList("10.0.1.3");
action.sessionId = "6033eea9a2514c078c7af2a709ead405";
AddMonToCephPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
AddMonToCephPrimaryStorageAction action = AddMonToCephPrimaryStorageAction()
```

```

action.uuid = "6b631b40a3fa434785a8b0bd49a3f199"
action.monUrls = [10.0.1.3]
action.sessionId = "c455c88362f84aa7acd07bd5f6d3a4d3"
AddMonToCephPrimaryStorageAction.Result res = action.call()

```

5.2.5.24.4 RemoveMonFromCephPrimaryStorage

API Request

URLs

```
DELETE/v1/primary-storage/ceph/{uuid}/mons?monHostnames={monHostnames}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b57c6816e9b64ae881a356f9308bb6c7" \
-X DELETE http://localhost:8080/zstack/v1/primary-storage/
ceph/31db2011f3944c85ae24a7ca607302e5/mons?monHostnames=10.0.1.2

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the Ceph primary storage.		0.6
monHostnames	List	body	The new hostname of the Ceph mon (monitor daemon).		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
```

```

"inventory": {
  "mons": [
    {
      "monAddr": "10.0.1.2",
      "monUuid": "c72a3fc6e06649de811bf90ba8c9c574"
    }
  ],
  "name": "My Ceph Primary Storage",
  "description": "Public Ceph Primary Storage",
  "totalCapacity": 1.073741824E9,
  "availableCapacity": 9.68884224E8,
  "type": "Ceph",
  "state": "Enabled",
  "status": "Connected",
  "createDate": "Jun 7, 2017 9:21:07 PM",
  "lastOpDate": "Jun 7, 2017 9:21:07 PM",
  "attachedClusterUuids": [
    "c0f667d99bfc41c1a133528a2089a9a7"
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	CephPrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The short description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
fsid	String		0.6
rootVolumePoolName	String		0.6
dataVolumePoolName	String		0.6
imageCachePoolName	String		0.6
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
mountPath	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6
mons	List	See mons .	0.6

#mons

Name	Type	Description	Starting Version
hostname	String		0.6
monPort	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
primaryStorageUuid	String	The UUID of the Ceph primary storage.	0.6
monAddr	String		0.6
sshUsername	String		0.6
sshPassword	String		0.6
sshPort	Integer		0.6
status	String		0.6
monUuid	String		0.6

SDK Sample

Java SDK

```
RemoveMonFromCephPrimaryStorageAction action = new RemoveMonFromCephPrimaryStorageAction();
action.uuid = "05aa4826fdbd4021b72e4d9a5db67bbc";
action.monHostnames = asList("10.0.1.2");
action.sessionId = "2412a720a3bb4992887979298217b300";
RemoveMonFromCephPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
RemoveMonFromCephPrimaryStorageAction action = RemoveMonFromCephPrimaryStorageAction()
action.uuid = "fb3dca5509154ca48698f374794f4d93"
```

```
action.monHostnames = [10.0.1.2]
action.sessionId = "9eb682deaa894cea80e1608056492948"
RemoveMonFromCephPrimaryStorageAction.Result res = action.call()
```

5.2.5.24.5 UpdateCephPrimaryStorageMon

API Request

URLs

```
PUT zstack/v1/primary-storage/ceph/mons/{monUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateCephPrimaryStorageMon": {
    "hostname": "10.0.1.4"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateCephPrimaryStorageMon":{"hostname":"10.0.1.4"}}' \
http://localhost:8080/zstack/v1/primary-storage/ceph/mons/
cda8b731b2e23b8eb1081dec0f7a0a60/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
monUuid	String	url	The Ceph mon (monitor daemon) UUID.		0.6
hostname	String	body (contained	Optional. The new hostname		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		in the updateCephPrimaryStorageMon structure)	of the Ceph mon.		
sshUsername	String	body (contained in the updateCephPrimaryStorageMon structure)	Optional. The SSH username of the Ceph mon.		0.6
sshPassword	String	body (contained in the updateCephPrimaryStorageMon structure)	Optional. The SSH password of the Ceph mon.		0.6
sshPort	Integer	body (contained in the updateCephPrimaryStorageMon structure)	Optional. The SSH port of the Ceph mon.		0.6
monPort	Integer	(contained in the updateCephPrimaryStorageMon structure)	Optional. The new port of the Ceph mon.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "mons": [
      {
        "monAddr": "10.0.1.4",
        "monUuid": "d557e48870b04ef699509d2998084bdb"
      }
    ],
    "name": "My Ceph Primary Storage",
    "description": "Public Ceph Primary Storage",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 9.68884224E8,
    "type": "Ceph",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Jun 7, 2017 9:21:22 PM",
    "lastOpDate": "Jun 7, 2017 9:21:22 PM",
    "attachedClusterUuids": [
      "3fa1f7c2bbb544e1a04ba9f9da935abe"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	CephPrimaryStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The short description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
fsid	String		0.6
rootVolumePoolName	String		0.6
dataVolumePoolName	String		0.6
imageCachePoolName	String		0.6
uuid	String	The resource UUID.	0.6
zoneUuid	String	The zone UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
totalPhysicalCapacity	Long		0.6
availablePhysicalCapacity	Long		0.6
systemUsedCapacity	Long		0.6
type	String		0.6

Name	Type	Description	Starting Version
state	String		0.6
status	String		0.6
mountPath	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6
mons	List	See mons .	0.6

#mons

Name	Type	Description	Starting Version
hostname	String		0.6
monPort	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
primaryStorageUuid	String	The UUID of the Ceph primary storage.	0.6
monAddr	String		0.6
sshUsername	String		0.6
sshPassword	String		0.6
sshPort	Integer		0.6
status	String		0.6
monUuid	String		0.6

SDK Sample

Java SDK

```
UpdateCephPrimaryStorageMonAction action = new UpdateCephPrimaryStorageMonAction();
action.monUuid = "3341eaef160045d6b6fd085a22a3c69f";
action.hostname = "10.0.1.4";
action.sessionId = "359aceecda5e478e81d4eaea9e86bca8";
```

```
UpdateCephPrimaryStorageMonAction.Result res = action.call();
```

Python SDK

```
UpdateCephPrimaryStorageMonAction action = UpdateCephPrimaryStorageMonAction()
action.monUuid = "70bc5237403848f6b5b6a60079c3ab91"
action.hostname = "10.0.1.4"
action.sessionId = "b1737cdb77c4420ba72aab66c4438521"
UpdateCephPrimaryStorageMonAction.Result res = action.call()
```

5.2.5.24.6 AddCephPrimaryStoragePool

API Request

URLs

```
POST zstack/v1/primary-storage/ceph/{primaryStorageUuid}/pools
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "poolName": "highPerformance",
    "aliasName": "alias pool name",
    "description": "for high performance data volumes",
    "isCreate": true
    "type": "ROOT"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"poolName":"highPerformance","aliasName":"alias pool name","description":"for high performance data volumes","isCreate":true,"type":"Root"}}' http://localhost:8080/zstack/v1/primary-storage/ceph/fe5adfa6042b33cd8ee7b5bcd994245f/pools
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
primaryStorageUuid	String	url	The UUID of the Ceph primary storage.		0.6
poolName	String	body (contained in the params structure)			0.6
aliasName	String	body (contained in the params structure)	Optional.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
isCreate	boolean	body (contained in the params structure)	Optional. Creates an extension pool .		0.6
type	String	body (contained in the params structure)	The type of the Ceph primary storage pool.		3.1.1
resourceUuid	String	body (contained in the params structure)	Optional.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
```

```

"inventory": {
  "uuid": "97ac9dc5fc223f80918747a8a398478b",
  "primaryStorageUuid": "82b127a3f6cc3ec7bd7ff01069310099",
  "poolName": "pool name",
  "aliasName": "alias name",
  "description": "description",
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM",
  "type": "Data"
}
}

```

Name	Type	Description	Starting Version
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	CephPrimaryStoragePoolInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The short description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
primaryStorageUuid	String	The UUID of the Ceph primary storage.	0.6
poolName	String		0.6
aliasName	String		0.6
description	String	The detailed description of the resource.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
type	String		0.6
availableCapacity	Long		2.3.2
usedCapacity	Long		2.3.2
replicatedSize	Integer		2.3.2

SDK Sample

Java SDK

```
AddCephPrimaryStoragePoolAction action = new AddCephPrimaryStoragePoolAction();
action.primaryStorageUuid = "fe5adfa6042b33cd8ee7b5bcd994245f";
action.poolName = "highPerformance";
action.aliasName = "alias pool name";
action.description = "for high performance data volumes";
action.isCreate = true;
action.type = "Root";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddCephPrimaryStoragePoolAction.Result res = action.call();
```

Python SDK

```
AddCephPrimaryStoragePoolAction action = AddCephPrimaryStoragePoolAction()
action.primaryStorageUuid = "fe5adfa6042b33cd8ee7b5bcd994245f"
action.poolName = "highPerformance"
```



```

action.aliasName = "alias pool name"
action.type = "Root"
action.description = "for high performance data volumes"
action.isCreate = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddCephPrimaryStoragePoolAction.Result res = action.call()

```

5.2.5.24.7 DeleteCephPrimaryStoragePool

API Request

URLs

```
DELETE zstack/v1/primary-storage/ceph/pools/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/primary-storage/ceph/
pools/5d9ee6f791d33de3a3aff68f7a746282?

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

```
}
```

SDK Sample

Java SDK

```
DeleteCephPrimaryStoragePoolAction action = new DeleteCephPrimaryStoragePoolAction();
action.uuid = "5d9ee6f791d33de3a3aff68f7a746282";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteCephPrimaryStoragePoolAction.Result res = action.call();
```

Python SDK

```
DeleteCephPrimaryStoragePoolAction action = DeleteCephPrimaryStoragePoolAction()
action.uuid = "5d9ee6f791d33de3a3aff68f7a746282"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteCephPrimaryStoragePoolAction.Result res = action.call()
```

5.2.5.24.8 QueryCephPrimaryStoragePool

API Request

URLs

```
GET zstack/v1/primary-storage/ceph/pools
GET zstack/v1/primary-storage/ceph/pools/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-storage/ceph/pools?
q=name=highPerformance
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-storage/ceph/pools/
d4e5d23825ff3004856e1720eff59131
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryCephPrimaryStoragePool`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "primaryStorageUuid": "d0e638ede3263a9080c41ce860106043",
      "poolName": "test pool",
      "aliasName": "alias test pool",
      "description": "high performance",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "type": "Data"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
primaryStorageUuid	String	The UUID of the Ceph primary storage.	0.6
poolName	String		0.6
aliasName	String		0.6
description	String	The detailed description of the resource.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
type	String		0.6
usedCapacity	Long		2.3.2
replicatedSize	Integer		2.3.2
availableCapacity	Long		2.3.2

SDK Sample

Java SDK

```
QueryCephPrimaryStoragePoolAction action = new QueryCephPrimaryStoragePoolAction();
action.conditions = asList("name=highPerformance");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryCephPrimaryStoragePoolAction.Result res = action.call();
```

Python SDK

```
QueryCephPrimaryStoragePoolAction action = QueryCephPrimaryStoragePoolAction()
action.conditions = ["name=highPerformance"]
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryCephPrimaryStoragePoolAction.Result res = action.call()
```

5.2.5.24.9 UpdateCephPrimaryStoragePool

API Request

URLs

```
PUT zstack/v1/primary-storage/ceph/pools/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateCephPrimaryStoragePool": {
    "aliasName": "alias",
    "description": "description"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateCephPrimaryStoragePool":
{"aliasName":"alias","description":"description"}}' \
http://localhost:8080/zstack/v1/primary-storage/ceph/
pools/8b2d94a2a12332a7ace559238644472c/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
aliasName	String	body (contained in the	Optional. The alias of the		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		updateCephPrimaryStoragePool structure)	Ceph primary storage pool.		
description	String	body (contained in the updateCephPrimaryStoragePool structure)	Optional. The detailed description of the resource.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7f0e174e86e739d695b0e5b9674e3638",
    "primaryStorageUuid": "6b247ebee1e4326998f10e03a5f8c230",
    "poolName": "pool name",
    "aliasName": "alias name",
    "description": "description",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "type": "Data"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	CephPrimaryStoragePoolInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The short description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
primaryStorageUuid	String	The UUID of the Ceph primary storage.	0.6
poolName	String		0.6
aliasName	String		0.6
description	String	The detailed description of the resource.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
type	String		0.6
usedCapacity	Long		2.3.2
replicatedSize	Integer		2.3.2
availableCapacity	Long		2.3.2

SDK Sample

Java SDK

```
UpdateCephPrimaryStoragePoolAction action = new UpdateCephPrimaryStoragePoolAction();
action.uuid = "8b2d94a2a12332a7ace559238644472c";
action.aliasName = "alias";
action.description = "description";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateCephPrimaryStoragePoolAction.Result res = action.call();
```

Python SDK

```
UpdateCephPrimaryStoragePoolAction action = UpdateCephPrimaryStoragePoolAction()
action.uuid = "8b2d94a2a12332a7ace559238644472c"
action.aliasName = "alias"
action.description = "description"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateCephPrimaryStoragePoolAction.Result res = action.call()
```

5.2.5.24.10 QueryCephOsdGroup

API Request

URLs

```
GET zstack/v1/primary-storage/ceph/osdgroups
GET zstack/v1/primary-storage/ceph/osdgroups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-storage/ceph/osdgroups\
q=uuid=b2c53eee77bc3bfea5374d417babff07
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```



```
-X GET http://localhost:8080/zstack/v1/primary-storage/ceph/
osdgroups/9ee0973b0e79393e9f7d03a6e3a6f645
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryCephOsdGroup`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "osds": "osd.1",
      "availableCapacity": 0.0,
      "availablePhysicalCapacity": 1024.0,
      "totalPhysicalCapacity": 1024.0,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventories	List	See inventories	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.5.0

#inventories

Name	Type	Description	Starting Version
primaryStorageUuid	String	The primary storage UUID.	4.5.0
osds	String		4.5.0
availableCapacity	long		4.5.0
availablePhysicalCapacity	long		4.5.0
totalPhysicalCapacity	long		4.5.0
createDate	Timestamp	The creation date.	4.5.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.5.0
uuid	String	The resource UUID.	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
QueryCephOsdGroupAction action = new QueryCephOsdGroupAction();
action.conditions = asList("uuid=3e479fc0962c3561a854d868fce5ab3e");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryCephOsdGroupAction.Result res = action.call();
```

Python SDK

```
QueryCephOsdGroupAction action = QueryCephOsdGroupAction()
action.conditions = ["uuid=45906504e89335809e54a79897eb1357"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryCephOsdGroupAction.Result res = action.call()
```

5.2.5.25 Shared Block Primary Storage Operations

5.2.5.25.1 AddSharedBlockGroupPrimaryStorage

API Request

URLs

```
POST zstack/v1/primary-storage/sharedblockgroup
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "diskUuids": [
      "1b5682b663b937a59adb9e318cab6b05"
    ],
    "name": "shared-block-group-1",
    "type": "SharedBlock",
    "zoneUuid": "eee8b39ad50b300c8935e554a967691b"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"diskUuids":
["1b5682b663b937a59adb9e318cab6b05"],"name":"shared-block-
group-1","type":"SharedBlock","zoneUuid":"eee8b39ad50b300c8935e554a967691b"}}'
http://localhost:8080/zstack/v1/primary-storage/sharedblockgroup
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
diskUuids	List	body (contained in	The unique identifier of		2.3.2

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	the disk. For example, UUID, WWN, and WWID.		
name	String	body (contained in the params structure)	The resource name.		2.3.2
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.3.2
type	String	body (contained in the params structure)	Optional. The primary storage type: SharedBlock.		2.3.2
url	String	body (contained in the params structure)	The reserved field.		2.3.2
zoneUuid	String	body (contained in the params structure)	The zone UUID.		2.3.2
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.3.2
systemTags	List	body	Optional. The system tags.		2.3.2
userTags	List	body	Optional. The user tags.		2.3.2

**Note:**

- When you add a Shared Block primary storage in ZStack Cloud, you can specify the default volume provisioning strategy by adding the **primaryStorageVolumeProvisioningStrategy** option to **SystemTags**.
 - Format of the **primaryStorageVolumeProvisioningStrategy** option: `primaryStorageVolumeProvisioningStrategy::ThinProvisioning`, `primaryStorageVolumeProvisioningStrategy::ThickProvisioning`
 - Example: `primaryStorageVolumeProvisioningStrategy::ThinProvisioning`, `primaryStorageVolumeProvisioningStrategy::ThickProvisioning`

API Response

Sample Response

```
{
  "inventory": {
    "name": "PS1",
    "url": "/Cloud_ps",
    "type": "LocalStorage",
    "state": "Enabled",
    "status": "Connected",
    "attachedClusterUuids": [
      "c6e9684e8bb93a9192c946dcd0564b39"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3.2
inventory	PrimaryStorageInventory	See inventory .	2.3.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3.2

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.3.2
details	String	The details about the error.	2.3.2
elaboration	String	The reserved field. Default value: null.	2.3.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3.2
zoneUuid	String	The zone UUID.	2.3.2
name	String	The resource name.	2.3.2
url	String		2.3.2
description	String	The detailed description of the resource.	2.3.2
totalCapacity	Long		2.3.2
availableCapacity	Long		2.3.2
totalPhysicalCapacity	Long		2.3.2
availablePhysicalCapacity	Long		2.3.2
systemUsedCapacity	Long		2.3.2
type	String		2.3.2
state	String		2.3.2
status	String		2.3.2
mountPath	String		2.3.2

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	2.3.2
lastOpDate	Timestamp	The last operation date.	2.3.2
attachedClusterUuids	List		2.3.2

SDK Sample

Java SDK

```
AddSharedBlockGroupPrimaryStorageAction action = new AddSharedBlockGroupPrimaryStorageAction();
action.diskUuids = asList("1b5682b663b937a59adb9e318cab6b05");
action.name = "shared-block-group-1";
action.type = "SharedBlock";
action.zoneUuid = "eee8b39ad50b300c8935e554a967691b";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddSharedBlockGroupPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
AddSharedBlockGroupPrimaryStorageAction action = AddSharedBlockGroupPrimaryStorageAction()
action.diskUuids = ["1b5682b663b937a59adb9e318cab6b05"]
action.name = "shared-block-group-1"
action.type = "SharedBlock"
action.zoneUuid = "eee8b39ad50b300c8935e554a967691b"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddSharedBlockGroupPrimaryStorageAction.Result res = action.call()
```

5.2.5.25.2 QuerySharedBlockGroupPrimaryStorageHostRef

API Request

URLs

```
GET zstack/v1/sharedblock-group/host-refs
GET zstack/v1/sharedblock-group/{primaryStorageUuid}/host-refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sharedblock-group/host-refs
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/sharedblock-group/
{primaryStorageUuid}/host-refs
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySharedBlock**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "primaryStorageUuid": "a9e96e98cc2c3a3baa23e31503fc93e6",
      "hostUuid": "7c5510f255663a3cbfd53367c0172507",
      "hostId": 100.0,
      "status": "Connected",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3.2
inventories	List	See inventories .	2.3.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3.2
description	String	The brief description of the error.	2.3.2
details	String	The details about the error.	2.3.2

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	2.3.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3.2

#inventories

Name	Type	Description	Starting Version
primaryStorageUuid	String	The UUID of the Shared Block primary storage.	2.3.2
hostUuid	String	The host UUID.	2.3.2
hostId	Integer	The host ID.	2.3.2
createDate	Timestamp	The creation date.	2.3.2
lastOpDate	Timestamp	The last operation date.	2.3.2
status	PrimaryStorageHostStatus	See status .	2.3.2

#status

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

SDK Sample

Java SDK

```
QuerySharedBlockGroupPrimaryStorageHostRefAction action = new
QuerySharedBlockGroupPrimaryStorageHostRefAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QuerySharedBlockGroupPrimaryStorageHostRefAction.Result res = action.call();
```

Python SDK

```
QuerySharedBlockGroupPrimaryStorageHostRefAction action = QuerySharedBlockGroupPrimaryStorageHostRefAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySharedBlockGroupPrimaryStorageHostRefAction.Result res = action.call()
```

5.2.5.25.3 QuerySharedBlockGroupPrimaryStorage

API Request

URLs

```
GET zstack/v1/primary-storage/sharedblockgroup
GET zstack/v1/primary-storage/sharedblockgroup/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-storage/sharedblockgroup
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-storage/sharedblockgroup/ab5776cffa893955a533f7e89cdaf025
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySharedBlock**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "sharedBlocks": [
        {
          "uuid": "2bf68818dc2c3ffbb9c9f283c8a1f524",
          "sharedBlockGroupUuid": "23ef265b88143074b88ad450afe5cbac",
          "type": "LvmLogicalVolumeBasic",
```

```

        "diskUuid": "b4d9459d02533fdeb4dee8b8bf943bed",
        "name": "test shared block",
        "description": "description",
        "state": "Enabled",
        "status": "Connected",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
],
"sharedBlockGroupType": "LvmVolumeGroupBasic",
"uuid": "23ef265b88143074b88ad450afe5cbac",
"name": "shared block group primary storage",
"description": "shared block group primary storage description",
"availableCapacity": 1.073741824E9,
"availablePhysicalCapacity": 1.073741824E9,
"type": "SharedBlock",
"state": "Enabled",
"status": "Connected",
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3.2
inventories	List	See inventories .	2.3.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3.2
description	String	The brief description of the error.	2.3.2
details	String	The details about the error.	2.3.2
elaboration	String	The reserved field. Default value: null.	2.3.2

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3.2

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3.2
zoneUuid	String	The zone UUID.	2.3.2
name	String	The resource name.	2.3.2
url	String	The reserved field.	2.3.2
description	String	The detailed description of the resource.	2.3.2
totalCapacity	Long	The total capacity.	2.3.2
availableCapacity	Long	The available capacity.	2.3.2
totalPhysicalCapacity	Long	The total physical capacity.	2.3.2
availablePhysicalCapacity	Long	The available physical capacity.	2.3.2
systemUsedCapacity	Long	The system used capacity.	2.3.2
type	String	The type of the primary storage.	2.3.2
state	String	The state.	2.3.2
status	String	The status.	2.3.2
mountPath	String	The reserved field.	2.3.2
createDate	Timestamp	The creation date.	2.3.2
lastOpDate	Timestamp	The last operation date.	2.3.2

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUID list.	2.3.2
sharedBlocks	List	See sharedBlocks .	2.3.2
sharedBlockGroupType	SharedBlockGroupType	See sharedBlockGroupType .	2.3.2

#sharedBlocks

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3.2
sharedBlockGroupUuid	String	The LUN group UUID.	2.3.2
diskUuid	String	The unique identifier of the disk. For example , UUID, WWN, and WWID.	2.3.2
name	String	The resource name.	2.3.2
description	String	The detailed description of the resource.	2.3.2
createDate	Timestamp	The creation date.	2.3.2
lastOpDate	Timestamp	The last operation date.	2.3.2
type	SharedBlockType	See type .	2.3.2
state	SharedBlockState	See state .	2.3.2
status	SharedBlockStatus	See status .	2.3.2

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

#status

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

#sharedBlockGroupType

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

SDK Sample

Java SDK

```
QuerySharedBlockGroupPrimaryStorageAction action = new QueryShare
dBlockGroupPrimaryStorageAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySharedBlockGroupPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
QuerySharedBlockGroupPrimaryStorageAction action = QueryShare
dBlockGroupPrimaryStorageAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QuerySharedBlockGroupPrimaryStorageAction.Result res = action.call()
```

5.2.5.25.4 AddSharedBlockToSharedBlockGroup

API Request

URLs

```
POST zstack/v1/primary-storage/sharedblockgroup/{uuid}/sharedblocks
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "diskUuid": "3bc916e4700e36c9ad9575fcf47222ab"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"diskUuid":"3bc916e4700e36c9ad9575fcf47222ab"}}'
http://localhost:8080/zstack/v1/primary-storage/
sharedblockgroup/506367e0d66d3fdb92eda345ed347c21/sharedblocks
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
diskUuid	String	body (contained in the params structure)	The unique identifier of the disk. For example, UUID, WWN, and WWID.		2.3.2

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The LUN group UUID.		2.3.2
systemTags	List	body	Optional. The system tags.		2.3.2
userTags	List	body	Optional. The user tags.		2.3.2

API Response

Sample Response

```
{
  "inventory": {
    "sharedBlocks": [
      {
        "uuid": "5bc4ef2f6f703bfd9aef732be038103d",
        "sharedBlockGroupUuid": "08f3dd28f1c433fe871e3fe760476981",
        "type": "LvmLogicalVolumeBasic",
        "diskUuid": "b9a89d214e3b37eda7a1aa948c59db13",
        "name": "test shared block",
        "description": "description",
        "state": "Enabled",
        "status": "Connected",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "sharedBlockGroupType": "LvmVolumeGroupBasic",
    "uuid": "08f3dd28f1c433fe871e3fe760476981",
    "name": "shared block group primary storage",
    "description": "shared block group primary storage description",
    "availableCapacity": 1.073741824E9,
    "availablePhysicalCapacity": 1.073741824E9,
    "type": "SharedBlock",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3.2

Name	Type	Description	Starting Version
inventory	SharedBlockGroupPrimaryStorageInventory	See inventory	2.3.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3.2
description	String	The short description of the error.	2.3.2
details	String	The details about the error.	2.3.2
elaboration	String	The reserved field. Default value: null.	2.3.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3.2
zoneUuid	String	The zone UUID.	2.3.2
name	String	The resource name.	2.3.2
url	String	The reserved field.	2.3.2
description	String	The detailed description of the resource.	2.3.2

Name	Type	Description	Starting Version
totalCapacity	Long	The total capacity.	2.3.2
availableCapacity	Long	The available capacity.	2.3.2
totalPhysicalCapacity	Long	The total physical capacity.	2.3.2
availablePhysicalCapacity	Long	The available physical capacity.	2.3.2
systemUsedCapacity	Long	The system used capacity.	2.3.2
type	String	The type of the primary storage.	2.3.2
state	String	The state.	2.3.2
status	String	The status.	2.3.2
mountPath	String	The reserved field.	2.3.2
createDate	Timestamp	The creation date.	2.3.2
lastOpDate	Timestamp	The last operation date.	2.3.2
attachedClusterUuids	List	The attached cluster UUID list.	2.3.2
sharedBlocks	List	See sharedBlocks .	2.3.2
sharedBlockGroupType	SharedBlockGroupType	See sharedBlockGroupType .	2.3.2

#sharedBlocks

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3.2
sharedBlockGroupUuid	String	The LUN group UUID.	2.3.2
diskUuid	String	The unique identifier of the disk. For example , UUID, WWN, and WWID.	2.3.2
name	String	The resource name.	2.3.2

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.3.2
createDate	Timestamp	The creation date.	2.3.2
lastOpDate	Timestamp	The last operation date.	2.3.2
type	SharedBlockType	See type .	2.3.2
state	SharedBlockState	See state .	2.3.2
status	SharedBlockStatus	See status .	2.3.2

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

#status

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

#sharedBlockGroupType

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

SDK Sample

Java SDK

```
AddSharedBlockToSharedBlockGroupAction action = new AddSharedBlockToSharedBlockGroupAction();
action.diskUuid = "3bc916e4700e36c9ad9575fcf47222ab";
action.uuid = "506367e0d66d3fdb92eda345ed347c21";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddSharedBlockToSharedBlockGroupAction.Result res = action.call();
```

Python SDK

```
AddSharedBlockToSharedBlockGroupAction action = AddSharedBlockToSharedBlockGroupAction()
action.diskUuid = "3bc916e4700e36c9ad9575fcf47222ab"
action.uuid = "506367e0d66d3fdb92eda345ed347c21"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddSharedBlockToSharedBlockGroupAction.Result res = action.call()
```

5.2.5.25.5 GetSharedBlockCandidate

API Request

URLs

```
GET zstack/v1/primary-storage/sharedblockgroup/sharedblock-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-storage/sharedblockgroup/sharedblock-candidates?clusterUuid=a8efc4d72a2334dcad7f71bcb4821d6f
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
clusterUuid	String	query	The cluster UUID.		2.6.0
systemTags	List	query	Optional. The system tags.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "results": [
    {
      "wwid": "ata-Samsung_SSD_850_EVO_M.2_250GB_S33CNX0H600299D",
      "vendor": "DELL",
      "model": "MD32xx",
      "wwn": "0x6b083fe000daf018",
      "serial": "6b083fe000daf018000015505abbe00a",
      "hctl": "",
      "type": "mpath",
      "size": 3.000318820352E13
    },
    {}
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.6.0
results	List	See results .	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0

Name	Type	Description	Starting Version
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#results

Name	Type	Description	Starting Version
wwid	String	The device WWID.	2.6.0
vendor	String	The device vendor.	2.6.0
model	String	The device model.	2.6.0
wwn	String	The device WWN.	2.6.0
serial	String	The device serial No.	2.6.0
hctl	String	The SCSI device HCTL.	2.6.0
type	String	The device type.	2.6.0
size	Long	The device size.	2.6.0

SDK Sample

Java SDK

```

GetSharedBlockCandidateAction action = new GetSharedBlockCandidateAction();
action.clusterUuid = "a8efc4d72a2334dcad7f71bcb4821d6f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetSharedBlockCandidateAction.Result res = action.call();

```

Python SDK

```

GetSharedBlockCandidateAction action = GetSharedBlockCandidateAction()
action.clusterUuid = "a8efc4d72a2334dcad7f71bcb4821d6f"

```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetSharedBlockCandidateAction.Result res = action.call()
```

5.2.5.25.6 RefreshSharedblockDeviceCapacity

API Request

URLs

```
POST zstack/v1/primary-storage/sharedblockgroup/
{sharedBlockGroupUuid}/sharedblocks/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/
primary-storage/sharedblockgroup/2974c033608537e68a305b0f29412776/
sharedblocks/9bd10e4bcc0939a2b041755a160d7b34
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	Optional. The LUN UUID . If null, all devices that attach to the LUN will be updated.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
sharedBlockGroupUuid	String	url	The LUN group UUID.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "sharedBlocks": [
      {
        "uuid": "fd474b5a711f3bcab14061e1507b0691",
        "sharedBlockGroupUuid": "9f900d7cc336370da2dccdd832a1613d",
        "type": "LvmLogicalVolumeBasic",
        "diskUuid": "b9bec04964ab30a7bf80bdf7ec997d9",
        "name": "test shared block",
        "description": "description",
        "state": "Enabled",
        "status": "Connected",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "sharedBlockGroupType": "LvmVolumeGroupBasic",
    "uuid": "9f900d7cc336370da2dccdd832a1613d",
    "name": "shared block group primary storage",
    "description": "shared block group primary storage description",
    "availableCapacity": 1.073741824E9,
    "availablePhysicalCapacity": 1.073741824E9,
    "type": "SharedBlock",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.6.0

Name	Type	Description	Starting Version
inventory	SharedBlockGroupPrimaryStorageInventory	See inventory .	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
name	String	The resource name.	2.6.0
url	String	The reserved field.	2.6.0
description	String	The detailed description of the resource.	2.6.0

Name	Type	Description	Starting Version
totalCapacity	Long	The total capacity.	2.6.0
availableCapacity	Long	The available capacity.	2.6.0
totalPhysicalCapacity	Long	The total physical capacity.	2.6.0
availablePhysicalCapacity	Long	The available physical capacity.	2.6.0
systemUsedCapacity	Long	The system used capacity.	2.6.0
type	String	The type of the primary storage.	2.6.0
state	String	The state.	2.6.0
status	String	The status.	2.6.0
mountPath	String	The reserved field.	2.6.0
createDate	Timestamp	The creation date.	2.6.0
lastOpDate	Timestamp	The last operation date.	2.6.0
attachedClusterUuids	List	The attached clusters.	2.6.0
sharedBlocks	List	See sharedBlocks .	2.6.0
sharedBlockGroupType	SharedBlockGroupType	See sharedBlockGroupType .	2.6.0

#sharedBlocks

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.6.0
sharedBlockGroupUuid	String	The LUN group UUID.	2.6.0
diskUuid	String	The unique identifier of the disk. For example , UUID, WWN, and WWID.	2.6.0
name	String	The resource name.	2.6.0
description	String	The detailed description of the resource.	2.6.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	2.6.0
lastOpDate	Timestamp	The last operation date.	2.6.0
type	SharedBlockType	See type .	2.6.0
state	SharedBlockState	See state .	2.6.0
status	SharedBlockStatus	See status .	2.6.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.6.0
ordinal	int		2.6.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.6.0
ordinal	int		2.6.0

#status

Name	Type	Description	Starting Version
name	String	The resource name.	2.6.0
ordinal	int		2.6.0

#sharedBlockGroupType

Name	Type	Description	Starting Version
name	String	The resource name.	2.6.0
ordinal	int		2.6.0

SDK Sample

Java SDK

```
RefreshSharedblockDeviceCapacityAction action = new RefreshSha
redblockDeviceCapacityAction();
action.uuid = "9bd10e4bcc0939a2b041755a160d7b34";
```

```
action.sharedBlockGroupUuid = "2974c033608537e68a305b0f29412776";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RefreshSharedblockDeviceCapacityAction.Result res = action.call();
```

Python SDK

```
RefreshSharedblockDeviceCapacityAction action = RefreshSharedblockDe
viceCapacityAction()
action.uuid = "9bd10e4bcc0939a2b041755a160d7b34"
action.sharedBlockGroupUuid = "2974c033608537e68a305b0f29412776"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RefreshSharedblockDeviceCapacityAction.Result res = action.call()
```

5.2.5.25.7 QuerySharedBlock

API Request

URLs

```
GET zstack/v1/sharedblock-group/sharedblocks
GET zstack/v1/sharedblock-group/
GET zstack/v1/sharedblock-group/sharedblock/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sharedblock-group/sharedblocks
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sharedblock-group/
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sharedblock-group/sharedblock/
e6076fa169ed38ba8f66e73c2db7158d
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySharedBlock**, and pressing the **Tab** key.

API Response

Sample Response

```
{
```

```

"inventories": [
  {
    "uuid": "3787d759b8323d2e8f0b19ef0bfe930b",
    "sharedBlockGroupUuid": "0dcfcb85f7613689886ae34114064cbd",
    "type": "LvmLogicalVolumeBasic",
    "name": "test shared block",
    "description": "description",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3.2
inventories	List	See inventories .	2.3.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3.2
description	String	The brief description of the error.	2.3.2
details	String	The details about the error.	2.3.2
elaboration	String	The reserved field. Default value: null.	2.3.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.3.2

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3.2
sharedBlockGroupUuid	String	The LUN group UUID.	2.3.2
diskUuid	String	The unique identifier of the disk. For example , UUID, WWN, and WWID.	2.3.2
name	String	The resource name.	2.3.2
description	String	The detailed description of the resource.	2.3.2
createDate	Timestamp	The creation date.	2.3.2
lastOpDate	Timestamp	The last operation date.	2.3.2
type	SharedBlockType	See type .	2.3.2
state	SharedBlockState	See state .	2.3.2
status	SharedBlockStatus	See status .	2.3.2

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

#status

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
ordinal	int		2.3.2

SDK Sample

Java SDK

```
QuerySharedBlockAction action = new QuerySharedBlockAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySharedBlockAction.Result res = action.call();
```

Python SDK

```
QuerySharedBlockAction action = QuerySharedBlockAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySharedBlockAction.Result res = action.call()
```

5.2.5.26 XStor Block Primary Storage Operations

5.2.5.26.1 AddBlockPrimaryStorage

API Request

URLs

```
POST zstack/v1/primary-storage/block
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "param": {
    "vendorName": "XStor",
    "metadata": "{\u0027ip\u0027:\u0027127.0.0.1\u0027, \u0027port\u0027:8443, \u0027username\u0027:\u0027test\u0027, \u0027password\u0027:\u0027password\u0027}"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"param":
{"vendorName":"XStor","metadata":{"ip':'127.0.0.1', 'port':8443,
'username':'test', 'password':'password'}}}' http://
localhost:8080/zstack/v1/primary-storage/block
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vendorName	String	body (contained in the param structure)	The storage vendor name.		4.6.0
metadata	String	body (contained in the param structure)	The storage metadata.		4.6.0
url	String	body (contained in the param structure)	Unused.		4.6.0
name	String	body (contained in the param structure)	The name of the Block primary storage.		4.6.0
description	String	body (contained in the param structure)	Optional. The detailed description of the Block primary storage.		4.6.0
type	String	body (contained in the param structure)	Optional. The primary storage type . The type is Block here.		4.6.0

Name	Type	Location	Description	Valid Values	Starting Version
zoneUuid	String	body (contained in the param structure)	The zone UUID.		4.6.0
resourceUuid	String	body(contained in the param structure)	Optional. The resource UUID.		4.6.0
tagUuids	List	body (contained in the param structure)	Optional. The tag UUID list.		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Response Sample

```
{
  "inventory": {
    "name": "PS1",
    "url": "/zstack_ps",
    "type": "LocalStorage",
    "state": "Enabled",
    "status": "Connected",
    "attachedClusterUuids": [
      "c6e9684e8bb93a9192c946dcd0564b39"
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.6.0

Name	Type	Description	Starting Version
inventory	PrimaryStorageInventory	For detailed version, see inventory .	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.0
zoneUuid	String	The zone UUID.	4.6.0
name	String	The resource name.	4.6.0
url	String		4.6.0
description	String	The detailed information of the resource.	4.6.0
totalCapacity	Long	The total capacity.	4.6.0
availableCapacity	Long	The available capacity.	4.6.0
totalPhysicalCapacity	Long	总物理空间	4.6.0
availablePhysicalCapacity	Long	The available physical capacity.	4.6.0

Name	Type	Description	Starting Version
systemUsedCapacity	Long	The system used capacity.	4.6.0
type	String	The primary storage type.	4.6.0
state	String	The running state.	4.6.0
status	String	The connection status.	4.6.0
mountPath	String		4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0
attachedClusterUuids	List	The cluster attached to .	4.6.0

SDK Sample

Java SDK

```
AddBlockPrimaryStorageAction action = new AddBlockPrimaryStorageAction();
action.vendorName = "XStor";
action.metadata = "{\"ip':'127.0.0.1', 'port':8443, 'username':'test', 'password':'password'}";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddBlockPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
AddBlockPrimaryStorageAction action = AddBlockPrimaryStorageAction()
action.vendorName = "XStor"
action.metadata = "{\"ip':'127.0.0.1', 'port':8443, 'username':'test', 'password':'password'}"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddBlockPrimaryStorageAction.Result res = action.call()
```

5.2.5.26.2 GetBlockPrimaryStorageMetadata

API Request

URLs

```
POST zstack/v1/primary-storage/block/metadata
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "param": {
    "vendorName": "XStor",
    "metadata": "{\u0027ip\u0027:\u0027127.0.0.1\u0027,\u0027port\u0027:\u00278443\u0027,\u0027username\u0027:\u0027test\u0027,\u0027password\u0027:\u0027123\u0027}"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"param":
{"vendorName":"XStor","metadata":"{\u0027ip\u0027:\u0027127.0.0.1\u0027,\u0027port\u0027:\u00278443\u0027,\u0027username\u0027:\u0027test\u0027,\u0027password\u0027:\u0027123\u0027}"
}' http://localhost:8080/zstack/v1/primary-storage/block/metadata
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vendorName	String	body (contained in the param structure)	The name of the Block storage vendor.		4.6.0

Name	Type	Location	Description	Valid Values	Starting Version
metadata	String	body (contained in the param structure)	The storage metadata (IP, port, user name, and password).		4.6.0
systemTags	List	body	Optional. The system tags.		4.6.0
userTags	List	body	Optional. The user tags.		4.6.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "vendorName": "XStor",
      "uuid": "8f93d463f7d73e1c959aee815ff1e9a8"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.6.0
inventory	PrimaryStorageInventory	For more information, see inventory	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	4.6.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0

#inventory

Name	Type	Description	Starting Version
vendorName	String	The storage vendor name.	4.6.0
metadata	String	The storage metadata.	4.6.0
uuid	String	The resource UUID.	4.6.0
zoneUuid	String	The zone UUID.	4.6.0
name	String	The primary storage name.	4.6.0
url	String	Unused.	4.6.0
description	String	The detailed description of the resource.	4.6.0
totalCapacity	Long	The total capacity.	4.6.0
availableCapacity	Long	The available capacity.	4.6.0
totalPhysicalCapacity	Long	The total physical capacity.	4.6.0
availablePhysicalCapacity	Long	The available physical capacity.	4.6.0
systemUsedCapacity	Long	The used system capacity.	4.6.0
type	String	The primary storage type.	4.6.0

Name	Type	Description	Starting Version
state	String	The running state.	4.6.0
status	String	The connection status.	4.6.0
mountPath	String	Used.	4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0
attachedClusterUuids	List	The cluster attached to .	4.6.0

SDK Sample

Java SDK

```
GetBlockPrimaryStorageMetadataAction action = new GetBlockPrimaryStorageMetadataAction();
action.vendorName = "XStor";
action.metadata = "{\"ip\":\"127.0.0.1\", \"port\":8443, \"username\":\"test\", \"password\":\"123\"}";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetBlockPrimaryStorageMetadataAction.Result res = action.call();
```

Python SDK

```
GetBlockPrimaryStorageMetadataAction action = GetBlockPrimaryStorageMetadataAction()
action.vendorName = "XStor"
action.metadata = "{\"ip\":\"127.0.0.1\", \"port\":8443, \"username\":\"test\", \"password\":\"123\"}"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetBlockPrimaryStorageMetadataAction.Result res = action.call()
```

5.2.5.26.3 QueryBlockPrimaryStorage

API Request

URLs

```
GET zstack/v1/primary-storage/block
```

```
GET zstack/v1/primary-storage/block/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-storage/block
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/primary-storage/
block/27520555d8e2373e9a7ec3801e358e1c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using zstack, entering `QueryBlockPrimaryStorage`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "vendorName": "XStor",
      "uuid": "8f93d463f7d73e1c959aee815ff1e9a8"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.6.0

Name	Type	Description	Starting Version
		more information, see error	
inventory	PrimaryStorageInventory	For more information, see inventories	4.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.0
description	String	The brief description of the error.	4.6.0
details	String	The details about the error.	4.6.0
elaboration	String	The reserved field. Default value: null.	4.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.0

#inventories

Name	Type	Description	Starting Version
vendorName	String	The storage vendor name.	4.6.0
metadata	String	The storage metadata.	4.6.0
uuid	String	The resource UUID.	4.6.0
zoneUuid	String	The zone UUID.	4.6.0
name	String	The primary storage name.	4.6.0
url	String	Unused.	4.6.0
description	String	The detailed description of the resource.	4.6.0

Name	Type	Description	Starting Version
totalCapacity	Long	The total capacity.	4.6.0
availableCapacity	Long	The available capacity.	4.6.0
totalPhysicalCapacity	Long	The total physical capacity.	4.6.0
availablePhysicalCapacity	Long	The available physical capacity.	4.6.0
systemUsedCapacity	Long	The system used capacity.	4.6.0
type	String	The primary storage type.	4.6.0
state	String	The running state.	4.6.0
status	String	The connection state.	4.6.0
mountPath	String	Unused.	4.6.0
createDate	Timestamp	The creation date.	4.6.0
lastOpDate	Timestamp	The last operation date.	4.6.0
attachedClusterUuids	List	The cluster attached to .	4.6.0

SDK Sample

Java SDK

```
QueryBlockPrimaryStorageAction action = new QueryBlockPrimaryStorageAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBlockPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
QueryBlockPrimaryStorageAction action = QueryBlockPrimaryStorageAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryBlockPrimaryStorageAction.Result res = action.call()
```

5.2.5.26.4 UpdateBlockPrimaryStorage

API Request

URLs

```
PUT zstack/v1/primary-storage/block/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBlockPrimaryStorage": {
    "vendorName": "XStor",
    "metadata": "{\u0027ip\u0027:\u0027127.0.0.1\u0027, \u0027port\u0027:8443, \u0027user\u0027:\u0027test\u0027, \u0027password\u0027:\u0027password\u0027}"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBlockPrimaryStorage": {
  "vendorName": "XStor", "metadata": "{\'ip\':\'127.0.0.1\', \'port\':8443,
  \'user\':\'test\', \'password\':\'password\'}"}' \
http://localhost:8080/zstack/v1/primary-storage/block/
blockPrimaryStorageUuid/actions
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vendorName	String	body (contained in the params structure)	Optional. The storage vendor name.		4.8.0

Name	Type	Location	Description	Valid Values	Starting Version
metadata	String	body (contained in the params structure)	Optional. The storage metadata.		4.8.0
uuid	String	url	The resource UUID.		4.8.0
systemTags	List	body	Optional. The system tags.		4.8.0
userTags	List	body	Optional. The user tags.		4.8.0

API Response

Response Sample

```
{
  "inventory": {
    "vendorName": "XStor",
    "metadata": "{\u0027ip\u0027:\u0027127.0.0.1\u0027, \u0027port\u0027:8443, \u0027user\u0027:\u0027test\u0027, \u0027password\u0027:\u0027password\u0027}",
    "uuid": "c85e957b4b4b3f949494275d443c9807",
    "name": "block primary storage",
    "description": "block primary storage description",
    "availableCapacity": 1073741824,
    "availablePhysicalCapacity": 1073741824,
    "type": "BlockStorage",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.8.0
inventory	BlockPrimaryStorageInventory	For detailed version, see inventory .	4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.8.0

#inventory

Name	Type	Description	Starting Version
vendorName	String	The storage vendor name.	4.8.0
metadata	String	The storage metadata.	4.8.0
uuid	String	The resource UUID.	4.8.0
zoneUuid	String	The zone UUID.	4.8.0
name	String	The resource name.	4.8.0
url	String		4.8.0
description	String	The detailed information of the resource.	4.8.0
totalCapacity	Long	The total capacity.	4.8.0
availableCapacity	Long	The available capacity.	4.8.0
totalPhysicalCapacity	Long	总物理空间	4.8.0
availablePhysicalCapacity	Long	The available physical capacity.	4.8.0
systemUsedCapacity	Long	The system used capacity.	4.8.0
type	String	The primary storage type.	4.8.0
state	String	The running state.	4.8.0
status	String	The connection status.	4.8.0
mountPath	String		4.8.0
createDate	Timestamp	The creation date.	4.8.0
lastOpDate	Timestamp	The last operation date.	4.8.0
attachedClusterUuids	List	The cluster attached to .	4.8.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	4.8.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.8.0
details	String	The details about the error.	4.8.0
elaboration	String	The reserved field. Default value: null.	4.8.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.8.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.8.0

SDK Sample

Java SDK

```
UpdateBlockPrimaryStorageAction action = new UpdateBlockPrimaryStorageAction();
action.vendorName = "XStor";
action.metadata = "{ 'ip': '127.0.0.1', 'port': 8443, 'user': 'test', 'password': 'password' }";
action.uuid = "blockPrimaryStorageUuid";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateBlockPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
UpdateBlockPrimaryStorageAction action = UpdateBlockPrimaryStorageAction()
action.vendorName = "XStor"
action.metadata = "{ 'ip': '127.0.0.1', 'port': 8443, 'user': 'test', 'password': 'password' }"
action.uuid = "blockPrimaryStorageUuid"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateBlockPrimaryStorageAction.Result res = action.call()
```

5.2.6 Backup Storage Operations

5.2.6.1 DeleteBackupStorage

API Request

URLs

```
DELETE zstack/v1/backup-storage/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 3cb9fd3d9fad4f64b62086b1aeabf42a" \
-X DELETE http://localhost:8080/zstack/v1/backup-
storage/12b157dc061a46739168b6e87bf2657f?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteBackupStorageAction action = new DeleteBackupStorageAction();
action.uuid = "1c8acbc2af8445a5b631350276787580";
action.deleteMode = "Permissive";
action.sessionId = "4caf9cc241604dbca3088779d6772dbe";
DeleteBackupStorageAction.Result res = action.call();
```

Python SDK

```
DeleteBackupStorageAction action = DeleteBackupStorageAction()
action.uuid = "06473459fd474a26bb1d79e2edd004f3"
action.deleteMode = "Permissive"
action.sessionId = "a6fead8970fe45cfa6ba92e7dcf08d66"
DeleteBackupStorageAction.Result res = action.call()
```

5.2.6.2 QueryBackupStorage

API Request

URLs

```
GET zstack/v1/backup-storage
GET zstack/v1/backup-storage/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth dce9c25b65254343b0f9a568a661f348" \
-X GET http://localhost:8080/zstack/v1/backup-storage?
q=uuid=435e61f882cf431bb4ae48246489a988
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth fe9a6571fc9949e7a0d31d94fae9b87c" \
```



```
-X GET http://localhost:8080/zstack/v1/backup-storage/1ab3b836a88342e1bbc1b1a17d092f0f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryBackupStorage**, and pressing the **Tab** key.

API Response

Sample Response (ImageStore)

```
{
  "inventories": [
    {
      "attachedZoneUuids": [
        "140ebc2fbdb74ae197323a69d432f25e"
      ],
      "availableCapacity": 4931431059456,
      "createDate": "Apr 11, 2018 2:50:54 PM",
      "description": "",
      "hostname": "172.20.1.115",
      "lastOpDate": "Dec 13, 2019 7:32:49 PM",
      "name": "image-store",
      "sshPort": 22,
      "state": "Enabled",
      "status": "Connected",
      "totalCapacity": 9992857976832,
      "type": "ImageStoreBackupStorage",
      "url": "/zstack_imagestore",
      "username": "root",
      "uuid": "1ab3b836a88342e1bbc1b1a17d092f0f"
    }
  ],
  "success": true
}
```

Sample Response (Ceph)

```
{
  "inventories": [
    {
      "attachedZoneUuids": [
        "195ae9157b9248e3889cc56cfd7d0f8d"
      ],
      "availableCapacity": 297500737536,
      "createDate": "Dec 14, 2019 9:46:05 AM",
      "description": "Test",
      "fsid": "d53902bc-ff50-4d08-8769-9d83448478d3",
      "lastOpDate": "Dec 14, 2019 11:30:40 AM",
      "mons": [
        {
          "backupStorageUuid": "eed424abee694bcda5a5e414a61ea3d3",
          "createDate": "Dec 14, 2019 9:46:05 AM",
          "hostname": "172.24.249.174",
          "lastOpDate": "Dec 14, 2019 11:21:46 AM",
          "monAddr": "172.24.249.174",
          "monPort": 6789,

```

```

        "monUuid": "e6707015afc8405ba0b184ca7a318b63",
        "sshPassword": "password",
        "sshPort": 22,
        "sshUsername": "root",
        "status": "Connected"
    },
    {
        "backupStorageUuid": "eed424abee694bcda5a5e414a61ea3d3",
        "createDate": "Dec 14, 2019 9:46:05 AM",
        "hostname": "172.24.252.188",
        "lastOpDate": "Dec 14, 2019 11:21:45 AM",
        "monAddr": "172.24.252.188",
        "monPort": 6789,
        "monUuid": "d5e70424ddac4c03ab06466d600ef4ae",
        "sshPassword": "password",
        "sshPort": 22,
        "sshUsername": "root",
        "status": "Connected"
    },
    {
        "backupStorageUuid": "eed424abee694bcda5a5e414a61ea3d3",
        "createDate": "Dec 14, 2019 9:46:05 AM",
        "hostname": "172.24.247.108",
        "lastOpDate": "Dec 14, 2019 11:21:16 AM",
        "monAddr": "172.24.247.108",
        "monPort": 6789,
        "monUuid": "378826f5f690480983f39514e0b00f75",
        "sshPassword": "password",
        "sshPort": 22,
        "sshUsername": "root",
        "status": "Connected"
    }
},
"name": "ceph-bs",
"poolAvailableCapacity": 99166913877,
"poolName": "bak-t-eed424abee694bcda5a5e414a61ea3d3",
"poolReplicatedSize": 3,
"poolUsedCapacity": 2787687082,
"state": "Enabled",
"status": "Connected",
"totalCapacity": 305863802880,
"type": "Ceph",
"url": "not used",
"uuid": "eed424abee694bcda5a5e414a61ea3d3"
},
"success": true
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

Name	Type	Description	Starting Version
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6

Name	Type	Description	Starting Version
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
QueryBackupStorageAction action = new QueryBackupStorageAction();
action.conditions = asList("uuid=b8e17834373747ae8b6555db80e74586");
action.sessionId = "f5d478c4facf42f4a3f16c8efbfd9628";
QueryBackupStorageAction.Result res = action.call();
```

Python SDK

```
QueryBackupStorageAction action = QueryBackupStorageAction()
action.conditions = ["uuid=0359113913834277bc815b446a6eff25"]
action.sessionId = "dc56b36c279f449ea2d430d2513a4cb0"
QueryBackupStorageAction.Result res = action.call()
```

5.2.6.3 ReconnectBackupStorage

API Request

URLs

```
PUT zstack/v1/backup-storage/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectBackupStorage": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectBackupStorage":{}}' \
http://localhost:8080/zstack/v1/backup-storage/37ea58b550103d40b23420e870bd616f/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "My Backup Storage",
    "description": "Public Backup Storage",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 9.68884224E8,
    "type": "Ceph",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Jun 7, 2017 9:20:21 PM",
    "lastOpDate": "Jun 7, 2017 9:20:21 PM",
    "attachedZoneUuids": [
      "410e621653de4bab8fd44f81e74b9225"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	BackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
ReconnectBackupStorageAction action = new ReconnectBackupStorageAction();
action.uuid = "f68e2350598547198b72bd578d14b037";
action.sessionId = "dcc8725e00f4437889104fe6ce942f96";
ReconnectBackupStorageAction.Result res = action.call();
```

Python SDK

```
ReconnectBackupStorageAction action = ReconnectBackupStorageAction()
action.uuid = "2f2571f4864c46778544b500d006dfe7"
action.sessionId = "a1c68d6ead48410ab9fd255d4c73f843"
ReconnectBackupStorageAction.Result res = action.call()
```

5.2.6.4 ChangeBackupStorageState

API Request

URLs

```
PUT zstack/v1/backup-storage/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeBackupStorageState": {
    "stateEvent": "Disabled"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeBackupStorageState":{"stateEvent":"disable"}}' \
http://localhost:8080/zstack/v1/backup-storage/7d2e0c9d7b3734f28b3a22eab93ddb63/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
stateEvent	String	body (contained in the changeBackupStorageState structure)	The target state of the backup storage.	- enable - disable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "My Backup Storage",
    "description": "Public Backup Storage",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 9.68884224E8,
    "type": "Ceph",
    "state": "Disabled",
    "status": "Connected",
    "createDate": "Jun 7, 2017 9:20:45 PM",
    "lastOpDate": "Jun 7, 2017 9:20:45 PM",
    "attachedZoneUuids": [
      "c1b882e3dfc944348ab63b478a64f257"
    ]
  }
}
```


}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	BackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
ChangeBackupStorageStateAction action = new ChangeBackupStorageStateAction();
action.uuid = "35b513d450dd484b8aae9c2a5c488a76";
action.stateEvent = "Disabled";
action.sessionId = "6235716916cc4fffb027a3cca374c5e";
ChangeBackupStorageStateAction.Result res = action.call();
```

Python SDK

```
ChangeBackupStorageStateAction action = ChangeBackupStorageStateAction()
action.uuid = "1576b0cf06b041d99e5f615b72bb384f"
action.stateEvent = "Disabled"
action.sessionId = "4226acacae2b489c8ba81e4af682a57a"
```

```
ChangeBackupStorageStateAction.Result res = action.call()
```

5.2.6.5 GetBackupStorageCapacity

API Request

URLs

```
GET zstack/v1/backup-storage/capacities
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 4804c84fa75e442e890d3a01a5bc2882" \
-X GET http://localhost:8080/zstack/v1/backup-storage/capacities?
zoneUuids=6c4a26e1ec274395977b1fd98144dd27&all=true
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
zoneUuids	List	query	Optional. The zone UUID list.		0.6
backupStorageUuids	List	query	Optional. The backup storage UUID list. - Make sure that at least one of zoneUuids and backupStorageUuids is specified. - Or, set all to true.		0.6
all	boolean	query	Optional. If backupStorageUuids		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			is null, this parameter is set true, which means that all backup storages in the system are queried.		
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "totalCapacity": 1.073741824E9,
  "availableCapacity": 9.68884224E8
}
```

Name	Type	Description	Starting Version
totalCapacity	long	The total capacity. Unit : byte.	0.6
availableCapacity	long	The available capacity . Unit: byte.	0.6
success	boolean	Whether the API succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
	ErrorCode	See error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetBackupStorageCapacityAction action = new GetBackupStorageCapacityAction();
action.zoneUuids = asList("aae3e25dc11b41f8ae41739814949cfe");
action.all = true;
action.sessionId = "fbcc6cc548a44caea69bb492ea13a4bd";
GetBackupStorageCapacityAction.Result res = action.call();
```

Python SDK

```
GetBackupStorageCapacityAction action = GetBackupStorageCapacityAction()
action.zoneUuids = [afa2a794d1244f55acc0f8d2d0e5cdc7]
action.all = true
action.sessionId = "1574e3585df94016a047e1d836978f3e"
```

```
GetBackupStorageCapacityAction.Result res = action.call()
```

5.2.6.6 GetBackupStorageTypes

API Request

URLs

```
GET zstack/v1/backup-storage/types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth 47583a9a72f84121b84135296f3af8cf" \  
-X GET http://localhost:8080/zstack/v1/backup-storage/types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{  
  "backupStorageTypes": [  
    "Ceph",  
    "ImageStore"  
  ]  
}
```

Name	Type	Description	Starting Version
types	List	The type list of the backup storage.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetBackupStorageTypesAction action = new GetBackupStorageTypesAction();
action.sessionId = "010841c1e6ea46cd9cde645ad31cc2e4";
GetBackupStorageTypesAction.Result res = action.call();
```

Python SDK

```
GetBackupStorageTypesAction action = GetBackupStorageTypesAction()
action.sessionId = "0c34591f7bcf4460ba3db2791b164f01"
```

```
GetBackupStorageTypesAction.Result res = action.call()
```

5.2.6.7 UpdateBackupStorage

API Request

URLs

```
PUT zstack/v1/backup-storage/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBackupStorage": {
    "name": "New Name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBackupStorage":{"name":"New Name"}}' \
http://localhost:8080/zstack/v1/backup-storage/72f0f262f3323515b177d148ad1efb66/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the target backup storage.		0.6
name	String	body (contained in the	Optional. The new name of		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		updateBackupStorage structure)	the backup storage.		
description	String	body (contained in the updateBackupStorage structure)	Optional. The new description of the backup storage.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "New Name",
    "description": "Public Backup Storage",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 9.68884224E8,
    "type": "Ceph",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Jun 7, 2017 9:20:36 PM",
    "lastOpDate": "Jun 7, 2017 9:20:36 PM",
    "attachedZoneUuids": [
      "90b2283f6c454453923dcf2f8e188330"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	BackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
UpdateBackupStorageAction action = new UpdateBackupStorageAction();
action.uuid = "2fe89c39bc2442aba58d5666d447b7c8";
action.name = "New Name";
action.sessionId = "1c2edd7a86564567ad34b7960808654e";
UpdateBackupStorageAction.Result res = action.call();
```

Python SDK

```
UpdateBackupStorageAction action = UpdateBackupStorageAction()
action.uuid = "f85f3310a70e4e01be84364aeb2caa42"
action.name = "New Name"
action.sessionId = "4176bd78f5754872b4963e0d3ddbc529"
UpdateBackupStorageAction.Result res = action.call()
```

5.2.6.8 ExportImageFromBackupStorage

API Request

URLs

```
PUT zstack/v1/backup-storage/{backupStorageUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "exportImageFromBackupStorage": {
    "imageUuid": "bd09de6529704e168923b77e5c1445c3"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"exportImageFromBackupStorage":
{"imageUuid":"0538b97654be3249a962327ace7c5520"}}' \
http://localhost:8080/zstack/v1/backup-
storage/03c75cf832863825b43696ea22d5d1ad/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	url	The backup storage UUID.		1.7
imageUuid	String	body (contained in the exportImageFromBackupStorage structure)	The image UUID.		1.7
exportFormat	String	body (contained in the exportImageFromBackupStorage structure)	Optional. The format for storing the exported image.		3.9.0
systemTags	List	body	Optional. The system tags.		1.7
userTags	List	body	Optional. The user tags.		1.7

API Response

Sample Response

```
{
  "imageUrl": "http://bs-host-name/path/to/image.qcow2",
  "exportMd5Sum": "8a239d17b045dea51c4677fa90a42ed8"
```

}

Name	Type	Description	Starting Version
imageUrl	String	The exported image URL.	1.7
exportMd5Sum	String	The MD5 checksum value of the exported image.	3.9.0
success	boolean	Whether the API succeeds.	1.7
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	1.7

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
ExportImageFromBackupStorageAction action = new ExportImageFromBackupStorageAction();
action.backupStorageUuid = "b95c2eef6b8d44248305bc21b58324dd";
action.imageUuid = "a8e908dd49a444d2ad37dd729a2d881f";
action.sessionId = "f58bf3e6d8294d488573fc62511a2ad0";
ExportImageFromBackupStorageAction.Result res = action.call();
```

Python SDK

```
ExportImageFromBackupStorageAction action = ExportImageFromBackupStorageAction()
action.backupStorageUuid = "dda8b4f308534e98a5fc2facdbc7936e"
action.imageUuid = "7ed5c3c65ae941dabe9ecc00b7a1b015"
action.sessionId = "f724920d165944218cd71b76e755757e"
ExportImageFromBackupStorageAction.Result res = action.call()
```

5.2.6.9 DeleteExportedImageFromBackupStorage

API Request

URLs

```
DELETE/v1/backup-storage/{backupStorageUuid}/exported-images/{imageUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth bb7d8495054d412fa8c7c16b8625222c" \
-X DELETE http://localhost:8080/zstack/v1/backup-storage/c03c38ab9d184143891718c4b3f664d1/exported-images/dce27bd0a0ae4aaa8771ac33d481ec52?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	url	The backup storage UUID.		1.7
imageUuid	String	url	The image UUID.		1.7

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		1.7
userTags	List	body	Optional. The user tags.		1.7

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteExportedImageFromBackupStorageAction action = new DeleteExportedImageFromBackupStorageAction();
action.backupStorageUuid = "9c781fd5c7334e8492c9d3409ad0c63a";
action.imageUuid = "b9b4f79d505040eba37ad6e4581b64fd";
action.sessionId = "ecce8dd56c3a476c8dd1ac90aeb0d321";
DeleteExportedImageFromBackupStorageAction.Result res = action.call();
```

Python SDK

```
DeleteExportedImageFromBackupStorageAction action = DeleteExportedImageFromBackupStorageAction()
action.backupStorageUuid = "29e4e1a659004403bd9b3738b36dd37e"
action.imageUuid = "2ba013855b8f4c688d977b545272541f"
action.sessionId = "e2c772523e104f3da969630930e68a17"
```

```
DeleteExportedImageFromBackupStorageAction.Result res = action.call()
```

5.2.6.10 SyncImage

API Request

URLs

```
PUT zstack/v1/backup-storage/image-store/{imageStoreUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncImage": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncImage":{}}' \
http://localhost:8080/zstack/v1/backup-storage/image-store/81f447310d194ef5a8c0f7bbdc8401/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
imageStoreUuid	String	url	The UUID of the backup storage.		4.7.11
systemTags	List	body	Optional. The system tags.		4.7.11
userTags	List	body	Optional. The user tags.		4.7.11

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.11
description	String	The brief description of the error.	4.7.11
details	String	The details about the error.	4.7.11
elaboration	String	The reserved field. Default value: null.	4.7.11
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.11
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.11

SDK Sample

Java SDK

```
SyncImageAction action = new SyncImageAction();
action.imageStoreUuid = "cff07127e2134fe28396a1aaeb70a1cf";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
SyncImageAction.Result res = action.call();
```

Python SDK

```
SyncImageAction action = SyncImageAction()
action.imageStoreUuid = "8a1247ffe8354566adb6ccae56aa1db3"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SyncImageAction.Result res = action.call()
```

5.2.6.11 AttachBackupStorageToZone

API Request

URLs

```
POST zstack/v1/zones/{zoneUuid}/backup-storage/{backupStorageUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/
v1/zones/5776b543bc713f6d9abca9cd605c8199/backup-
storage/53ef01cbf71d3bd68206908b87e51403
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
zoneUuid	String	url	The zone UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	url	The backup storage UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "My Backup Storage",
    "description": "Public Backup Storage",
    "totalCapacity": 1073741824,
    "availableCapacity": 968884224,
    "type": "Ceph",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Jun 7, 2017 9:20:19 PM",
    "lastOpDate": "Jun 7, 2017 9:20:19 PM",
    "attachedZoneUuids": [
      "73799602dbf64c0d85694de34fc596c3"
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	BackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	0.6

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
AttachBackupStorageToZoneAction action = new AttachBackupStorageToZoneAction();
action.zoneUuid = "426c6d907d3546378bd0007a74fc68e4";
action.backupStorageUuid = "d60efb0b61c3420a8e2d90d30054548f";
action.sessionId = "1b44ab68b73b4336a34aa10f6dc93cf8";
AttachBackupStorageToZoneAction.Result res = action.call();
```

Python SDK

```
AttachBackupStorageToZoneAction action = AttachBackupStorageToZoneAction()
action.zoneUuid = "a590b4b45fbf441499bc0eebc23966d8"
action.backupStorageUuid = "62be70c887354bcfbec52c64e88a6718"
action.sessionId = "bf4faf33fd544650928a0d0732a2f1c1"
AttachBackupStorageToZoneAction.Result res = action.call()
```

5.2.6.12 DetachBackupStorageFromZone

API Request

URLs

```
DELETE/v1/zones/{zoneUuid}/backup-storage/{backupStorageUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth d0143df7af864c029c386e8957d218b6" \
-X DELETE http://localhost:8080/zstack/v1/
zones/cb571dd2f60740de9fea4d9003a9f33f/backup-
storage/8cbfbfd5b24a4d01aaa7da5a6fc96169?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	url	The backup storage UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
zoneUuid	String	url	The zone UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "My Backup Storage",
    "description": "Public Backup Storage",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 9.68884224E8,
    "type": "Ceph",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Jun 7, 2017 9:20:21 PM",
    "lastOpDate": "Jun 7, 2017 9:20:21 PM",
    "attachedZoneUuids": [
      "c57c33405b544ee580e6892a796cff96"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	BackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
DetachBackupStorageFromZoneAction action = new DetachBackupStorageFromZoneAction();
action.backupStorageUuid = "a1b0bc9a79984c43bbf04da9d3ae6a4d";
action.zoneUuid = "c2be518dc66a4f3cb513d0cda54e9e96";
action.sessionId = "6256e305d8eb4d969dc244ae0b8fc7cb";
DetachBackupStorageFromZoneAction.Result res = action.call();
```

Python SDK

```
DetachBackupStorageFromZoneAction action = DetachBackupStorageFromZoneAction()
action.backupStorageUuid = "86342d8a57fb42c19113ff5311947874"
action.zoneUuid = "c33c4fb6a91d4c13a75014262256bfbd"
action.sessionId = "0b9369db754a4e01b6ab28bc1140bebc"
DetachBackupStorageFromZoneAction.Result res = action.call()
```

5.2.6.13 BackupStorageMigrateImage

API Request

URLs

```
PUT zstack/v1/backup-storage/images/{imageUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "backupStorageMigrateImage": {
    "srcBackupStorageUuid": "94a166b9be264f1cafc6de4373117711",
    "dstBackupStorageUuid": "01e8e16d56f44880bfe00bdd22da37ed"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"backupStorageMigrateImage":
{"srcBackupStorageUuid":"dc0d29bb93a93c9b859919c42b8ea583","dstBackupStorageUuid":
http://localhost:8080/zstack/v1/backup-storage/
images/728c33a3e6a5319c9276fb43ae982de7/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
imageUuid	String	url	The image UUID.		2.2
srcBackupStorageUuid	String	body (contained in the backupStorageMigrateImage structure)	The UUID of the source backup storage.		2.2
dstBackupStorageUuid	String	body (contained in the backupStorageMigrateImage structure)	The UUID of the destination backup storage.		2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5030c88a703e41b986d140880ad79bcd",
    "name": "TinyLinux",
    "url": "http://192.168.1.20/share/images/tinylinux.qcow2",
    "mediaType": "RootVolumeTemplate",
    "platform": "Linux",
```

```

    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0.0,
        "imageUuid": "5030c88a703e41b986d140880ad79bcd",
        "backupStorageUuid": "21df59afa9414a0aa405cb4c4fef2fee",
        "installPath": "ceph://zs-images/f0b149e053b34c7eb7fe
694b182ebffd",
        "status": "Ready"
      }
    ]
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventory	ImageInventory	See inventory .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.2

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
state	String		2.2
status	String		2.2
size	Long		2.2
actualSize	Long		2.2
md5Sum	String		2.2
url	String		2.2
mediaType	String		2.2
guestOsType	String		2.2
type	String		2.2
platform	String		2.2
format	String		2.2
system	Boolean		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
backupStorageRefs	List	See backupStorageRefs .	2.2

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The image UUID.	2.2

Name	Type	Description	Starting Version
backupStorageUuid	String	The backup storage UUID.	2.2
installPath	String		2.2
exportUrl	String		2.2
exportMd5Sum	String		2.2
status	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2

SDK Sample

Java SDK

```
BackupStorageMigrateImageAction action = new BackupStorageMigrateImageAction();
action.imageUuid = "c128546f17ba4dfc92055232549fd335";
action.srcBackupStorageUuid = "5346ba40a0d34caeb0b93f1b1a0db365";
action.dstBackupStorageUuid = "1a2dd487461f403eb47ac8c976c129a2";
action.sessionId = "c9fd105944334cddb33c03a1b3d3f423";
BackupStorageMigrateImageAction.Result res = action.call();
```

Python SDK

```
BackupStorageMigrateImageAction action = BackupStorageMigrateImageAction()
action.imageUuid = "ecda1a5ff835474897b59aedd04bee5e"
action.srcBackupStorageUuid = "84242c5298634005b748140d01538d6a"
action.dstBackupStorageUuid = "593ed6cba5b046aeb33b77a6ac1fa927"
action.sessionId = "6a214423493146078b5a2c9b3f74b80d"
```

```
BackupStorageMigrateImageAction.Result res = action.call()
```

5.2.6.14 GetBackupStorageCandidatesForImageMigration

API Request

URLs

```
GET zstack/v1/backup-storage/{srcBackupStorageUuid}/migration-candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 3de5faeefb2d404ab8794990b744538c" \
-X GET http://localhost:8080/zstack/v1/backup-storage/3c738531e0b64399a354022d59a46ebb/migration-candidates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
srcBackupStorageUuid	String	url	The UUID of the backup storage whose images are to be migrated.		2.2
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "7ed005f5dcfd4ca7b1883b97c803f53b",
      "name": "BS-1"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventories	List	See inventories .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2

Name	Type	Description	Starting Version
url	String		2.2
description	String	The detailed description of the resource.	2.2
totalCapacity	Long		2.2
availableCapacity	Long		2.2
type	String		2.2
state	String		2.2
status	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
attachedZoneUuids	List		2.2

SDK Sample

Java SDK

```
GetBackupStorageCandidatesForImageMigrationAction action = new
GetBackupStorageCandidatesForImageMigrationAction();
action.srcBackupStorageUuid = "cf9fb97b3045411ab5345fe678116bf8";
action.sessionId = "2887bb5380f242f8ab43ae2d8649cb73";
GetBackupStorageCandidatesForImageMigrationAction.Result res = action.
call();
```

Python SDK

```
GetBackupStorageCandidatesForImageMigrationAction action = GetBackupS
torageCandidatesForImageMigrationAction()
action.srcBackupStorageUuid = "962c8f5399354df591c08fc3d25b58c1"
action.sessionId = "ab7451c36d8c4c3ea85d3c7395389fda"
```

```
GetBackupStorageCandidatesForImageMigrationAction.Result res = action.call()
```

5.2.6.15 ImageStore Backup Storage Operations

5.2.6.15.1 AddImageStoreBackupStorage

API Request

URLs

```
POST zstack/v1/backup-storage/image-store
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "hostname": "192.168.1.8",
    "username": "admin",
    "password": "admin%pass",
    "sshPort": 22.0,
    "url": "/data/imagestore",
    "name": "ImageStore",
    "importImages": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"hostname":"192.168.1.8","username":"admin","password":"admin
%pass","sshPort":22.0,"url":"/data/
imagestore","name":"ImageStore","importImages":false}}' \
http://localhost:8080/zstack/v1/backup-storage/image-store
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
hostname	String	body (contained in the params structure)	The hostname of the ImageStore backup storage.		1.6
username	String	body (contained in the params structure)	The SSH username of the backup storage. This parameter is used to deploy Ansible.		1.6
password	String	body (contained in the params structure)	The SSH password of the ImageStore backup storage.		1.6
sshPort	int	body (contained in the params structure)	Optional. The SSH port of the ImageStore backup storage.		1.6
url	String	body (contained in the params structure)	The path for storing local data in the ImageStore backup storage.		1.6
name	String	body (contained in the params structure)	The name of the ImageStore backup storage.		1.6
description	String	body (contained in	Optional. The description of the		1.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	ImageStore backup storage.		
type	String	body (contained in the params structure)	Optional. The backup storage type : ImageStore BackupStorage.		1.6
importImages	boolean	body (contained in the params structure)	Optional. Whether to import images.		1.9
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the ImageStore backup storage will use this field as the UUID.		1.6
systemTags	List	body (contained in the params structure)	Optional. The system tags.		1.6
userTags	List	body (contained in the params structure)	Optional. The user tags.		1.6

**Note:**

- When you add an ImageStore backup storage in ZStack Cloud, you can specify the method to mount the storage path of the ImageStore backup storage by adding the **fsInfo** option to **SystemTags**.

- Format of the **fsInfo** option: `fsInfo::type::$TYPE::url::$URL::options::$OPTIONS`
- Example: `fsInfo::type::nfs::url::172.32.1.119:/nas/nfs2::options::nolock,vers=3,rsiz=32768,wsiz=32768`

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddImageStoreBackupStorageAction action = new AddImageStoreBackupStorageAction();
action.hostname = "192.168.1.8";
action.username = "admin";
action.password = "admin%pass";
action.sshPort = 22.0;
action.url = "/data/imagestore";
action.name = "ImageStore";
action.importImages = false;
action.sessionId = "5171f258102a43368597dedd6317622b";
AddImageStoreBackupStorageAction.Result res = action.call();
```

Python SDK

```
AddImageStoreBackupStorageAction action = AddImageStoreBackupStorageAction()
action.hostname = "192.168.1.8"
action.username = "admin"
action.password = "admin%pass"
action.sshPort = 22.0
action.url = "/data/imagestore"
action.name = "ImageStore"
action.importImages = False
action.sessionId = "7b360d3775524a9780474b07ff68ed15"
```

```
AddImageStoreBackupStorageAction.Result res = action.call()
```

5.2.6.15.2 QueryImageStoreBackupStorage

API Request

URLs

```
GET zstack/v1/backup-storage/image-store
GET zstack/v1/backup-storage/image-store/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth f3580612efa9402082b0b57447e3fbc9" \
-X GET http://localhost:8080/zstack/v1/backup-storage/image-store?
q=uuid=5870d2edddff4ccc9f27a67e3a23391a
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 3831efab7c7a40ce88149e508f433169" \
-X GET http://localhost:8080/zstack/v1/backup-storage/image-
store/3f326deb28fa4176964867d888b197a4
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryImageStoreBackupStorage**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "hostname": "127.0.0.1",
      "username": "zstack",
      "sshPort": 22.0,
      "uuid": "744dc382db7b3598af79246b67e45230",
      "name": "ImageStoreBS",
      "url": "/Cloud_bs",
      "description": "My ImageStore Backup Storage.",
      "totalCapacity": 1.099511627776E12,
      "availableCapacity": 5.49755813888E11,
      "type": "ImageStoreBackupStorage",
      "state": "Enabled",
      "status": "Connected",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "attachedZoneUuids": [
        "c3affca1fde2388691216e0f7884f515"
      ]
    }
  ]
}
```

```

    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
hostname	String		0.6

Name	Type	Description	Starting Version
username	String		0.6
sshPort	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource UUID.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
QueryImageStoreBackupStorageAction action = new QueryImageStoreBackupStorageAction();
action.conditions = asList("uuid=d087b11dccd94ea8933ecc37b193fd50");
action.sessionId = "3b90553d582f4ec2aebfb8a384e4e447";
QueryImageStoreBackupStorageAction.Result res = action.call();
```

Python SDK

```
QueryImageStoreBackupStorageAction action = QueryImageStoreBackupStorageAction()
action.conditions = ["uuid=0c5b7c9cb2d84636aa2bbe20ce576ff8"]
action.sessionId = "89dbffa3dab64d5693b61cacce2d2268"
```

```
QueryImageStoreBackupStorageAction.Result res = action.call()
```

5.2.6.15.3 ReconnectImageStoreBackupStorage

API Request

URLs

```
PUT zstack/v1/backup-storage/image-store/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectImageStoreBackupStorage": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectImageStoreBackupStorage":{}}' \
http://localhost:8080/zstack/v1/backup-storage/image-store/
a6d3a3c8a24b3f669fcecbb7bc6798ca/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the ImageStore backup storage.		1.6
systemTags	List	body (contained in the params structure)	Optional. The system tags.		1.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body (contained in the params structure)	Optional. The user tags.		1.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "ImageStore",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 8.05306368E8,
    "state": "Enabled",
    "status": "Connected",
    "attachedZoneUuids": [
      "3b8b703c308741ec9a38411d003fdcbe"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ImageStore BackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
hostname	String		0.6
username	String		0.6
sshPort	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
ReconnectImageStoreBackupStorageAction action = new ReconnectImageStoreBackupStorageAction();
action.uuid = "35f288ca1e2f4f719c4f284277f78545";
action.sessionId = "af42d38e4ccc499ea5ca72ea82beae11";
ReconnectImageStoreBackupStorageAction.Result res = action.call();
```

Python SDK

```
ReconnectImageStoreBackupStorageAction action = ReconnectImageStoreBackupStorageAction()
action.uuid = "751f52d7c74140119ca865261e30cafa"
action.sessionId = "075295f4c9fe45c185d1821e6c4d0f71"
ReconnectImageStoreBackupStorageAction.Result res = action.call()
```

5.2.6.15.4 UpdateImageStoreBackupStorage

API Request

URLs

```
PUT zstack/v1/backup-storage/image-store/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateImageStoreBackupStorage": {
    "hostname": "192.168.1.18"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateImageStoreBackupStorage":
{"hostname":"192.168.1.18"}}' \
http://localhost:8080/zstack/v1/backup-storage/image-store/
fa603f20ce2c370a8ba9d1928c3d6173/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
username	String	body (contained in the updateImageStoreBackupStorage structure)	Optional. The SSH username of the ImageStore backup storage. This parameter is used to deploy Ansible.		1.6
password	String	body (contained in the updateImageStoreBackupStorage structure)	Optional. The SSH password of the ImageStore backup storage.		1.6
hostname	String	body (contained in the updateImageStoreBackupStorage structure)	Optional. The hostname of the ImageStore backup storage.		1.6
sshPort	Integer	body (contained in the updateImageStoreBackupStorage structure)	Optional. The SSH port of the ImageStore backup storage.		1.6
uuid	String	url	The ImageStore		1.6

Name	Type	Location	Description	Optional Value	Starting Version
			backup storage UUID.		
name	String	body (contained in the updateImageStoreBackupStorage structure)	Optional. The new name of the ImageStore backup storage.		1.6
description	String	body (contained in the updateImageStoreBackupStorage structure)	Optional. The detailed description of the ImageStore backup storage.		1.6
systemTags	List	body (contained in the updateImageStoreBackupStorage structure)	Optional. The system tags.		1.6
userTags	List	body (contained in the updateImageStoreBackupStorage structure)	Optional. The user tags.		1.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "New Name",
    "description": "Public Backup Storage",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 9.68884224E8,
    "type": "Ceph",

```

```

"state": "Enabled",
"status": "Connected",
"createDate": "Jun 7, 2017 9:20:12 PM",
"lastOpDate": "Jun 7, 2017 9:20:12 PM",
"attachedZoneUuids": [
  "7c99892d8d5542faae4d1dd7d17be252"
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	BackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
UpdateImageStoreBackupStorageAction action = new UpdateImageStoreBackupStorageAction();
action.hostname = "192.168.1.18";
action.uuid = "b7220dfd8c604483819df54af3e2e5df";
action.sessionId = "d9f658720aa84cc190cb26f84b4a9137";
UpdateImageStoreBackupStorageAction.Result res = action.call();
```

Python SDK

```
UpdateImageStoreBackupStorageAction action = UpdateImageStoreBackupStorageAction()
action.hostname = "192.168.1.18"
action.uuid = "9cf8df2338b9497d886ccb49dfb4278c"
action.sessionId = "4b8bc0b578ca4da1bb5baf1802480de2"
```

```
UpdateImageStoreBackupStorageAction.Result res = action.call()
```

5.2.6.15.5 ReclaimSpaceFromImageStore

API Request

URLs

```
PUT zstack/v1/backup-storage/image-store/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reclaimSpaceFromImageStore": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reclaimSpaceFromImageStore":{}}' \
http://localhost:8080/zstack/v1/backup-storage/image-store/
ec74c4664f52342e898fb0fa966d915e/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The ImageStore backup storage UUID.		1.10
systemTags	List	body (contained in the params structure)	Optional. The system tags.		1.10

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body (contained in the params structure)	Optional. The user tags.		1.10

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ReclaimSpaceFromImageStoreAction action = new ReclaimSpaceFromImageStoreAction();
action.uuid = "1dbdc3a4c7cd47d288f6c71116ae5b1f";
action.sessionId = "2e4a160b40b64fb4a9faa04829000d68";
ReclaimSpaceFromImageStoreAction.Result res = action.call();
```

Python SDK

```
ReclaimSpaceFromImageStoreAction action = ReclaimSpaceFromImageStoreAction()
action.uuid = "713fa4965e6f4f70aeb1c96cd9d959ef"
action.sessionId = "87839a65f127443093bc708bcdaf3b0c"
```



```
ReclaimSpaceFromImageStoreAction.Result res = action.call()
```

5.2.6.16 Ceph Backup Storage Operations

5.2.6.16.1 AddCephBackupStorage

API Request

URLs

```
POST zstack/v1/backup-storage/ceph
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "monUrls": [
      "10.0.1.2"
    ],
    "poolName": "zs-images",
    "name": "My Ceph Backup Storage",
    "importImages": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"monUrls":["10.0.1.2"],"poolName":"zs-images","name":"My Ceph Backup Storage","importImages":false}}' \
http://localhost:8080/zstack/v1/backup-storage/ceph
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
monUrls	List	body (contained in	The URL list of the Ceph		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	mon (monitor daemon).		
poolName	String	body (contained in the params structure)	Optional. The name of the Ceph pool for storing images .		0.6
url	String	body (contained in the params structure)	The reserved field.		0.6
name	String	body (contained in the params structure)	The name of the Ceph backup storage.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the Ceph backup storage.		0.6
type	String	body (contained in the params structure)	Optional. The backup storage type: Ceph.		0.6
importImages	boolean	body (contained in the params structure)	Optional. Whether to import images		1.9
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the Ceph backup storage will use this field as the UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "My Backup Storage",
    "description": "Public Backup Storage",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 9.68884224E8,
    "type": "Ceph",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Jun 7, 2017 9:20:17 PM",
    "lastOpDate": "Jun 7, 2017 9:20:17 PM",
    "attachedZoneUuids": [
      "812bb731a83847ffba9d8caa3a4633d2"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	BackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
AddCephBackupStorageAction action = new AddCephBackupStorageAction();
action.monUrls = asList("10.0.1.2");
action.poolName = "zs-images";
action.name = "My Ceph Backup Storage";
action.importImages = false;
action.sessionId = "a6df67e34a4840a38f6cdb1f5fdeaaa9";
AddCephBackupStorageAction.Result res = action.call();
```

Python SDK

```
AddCephBackupStorageAction action = AddCephBackupStorageAction()
action.monUrls = [10.0.1.2]
action.poolName = "zs-images"
action.name = "My Ceph Backup Storage"
action.importImages = false
action.sessionId = "fb435a60b1a84c3e82fd9dc90d933b39"
AddCephBackupStorageAction.Result res = action.call()
```

5.2.6.16.2 QueryCephBackupStorage

API Request

URLs

```
GET zstack/v1/backup-storage/ceph
GET zstack/v1/backup-storage/ceph/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth d380f3382f294e7bac14527b517d0c49" \
-X GET http://localhost:8080/zstack/v1/backup-storage/ceph?
q=uuid=005420eeec6c4a6292939ea7fa8a954b
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 0aab3fffc9f9c49fba1932c9f2cf38434" \
-X GET http://localhost:8080/zstack/v1/backup-storage/
ceph/3e3c2f5e4f5d476ba1ef8e5ba42be06b
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryCephBackupStorage`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "My Backup Storage",
      "description": "Public Backup Storage",
      "totalCapacity": 1.073741824E9,
      "availableCapacity": 9.68884224E8,
      "type": "Ceph",
      "state": "Enabled",
      "status": "Connected",
      "createDate": "Jun 7, 2017 9:21:12 PM",
      "lastOpDate": "Jun 7, 2017 9:21:12 PM",
      "attachedZoneUuids": [
        "1613a61a681b4d7790ffc1d2bd2870d3"
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6

SDK Sample

Java SDK

```
QueryCephBackupStorageAction action = new QueryCephBackupStorageAction();
action.conditions = asList("uuid=fd7807cb1d744273bf8632362f2095aa");
action.sessionId = "940c1b37499e4e3c831625717ddb1c8f";
```

```
QueryCephBackupStorageAction.Result res = action.call();
```

Python SDK

```
QueryCephBackupStorageAction action = QueryCephBackupStorageAction()
action.conditions = ["uuid=2c8474f249234365993ba771e4b495ba"]
action.sessionId = "2b7bb843955e4574b8ca8862d0223f8d"
QueryCephBackupStorageAction.Result res = action.call()
```

5.2.6.16.3 UpdateCephBackupStorageMon

API Response

URLs

```
PUT zstack/v1/backup-storage/ceph/mons/{monUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateCephBackupStorageMon": {
    "hostname": "10.0.1.4"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateCephBackupStorageMon":{"hostname":"10.0.1.4"}}' \
http://localhost:8080/zstack/v1/backup-storage/ceph/mons/
c239e1d3164b3383bd12828632f706d6/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
monUuid	String	url	The Ceph mon (monitor)		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			daemon) UUID.		
hostname	String	body (contained in the updateCeph BackupStorageMon structure)	Optional. The new hostname of the Ceph mon.		0.6
sshUsername	String	body (contained in the updateCeph BackupStorageMon structure)	Optional. The SSH username of the Ceph mon.		0.6
sshPassword	String	body (contained in the updateCeph BackupStorageMon structure)	Optional. The SSH password of the Ceph mon.		0.6
sshPort	Integer	body (contained in the updateCeph BackupStorageMon structure)	Optional. The SSH port of the Ceph mon.		0.6
monPort	Integer	body (contained in the updateCeph BackupStorageMon structure)	Optional. The port of the Ceph mon.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "mons": [
      {
        "monAddr": "10.0.1.4",
        "monUuid": "e1fd732039e64d3bb81d779cdea2e0e1"
      }
    ],
    "name": "My Ceph Backup Storage",
    "description": "Public Ceph Backup Storage",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 9.68884224E8,
    "type": "Ceph",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Jun 7, 2017 9:20:08 PM",
    "lastOpDate": "Jun 7, 2017 9:20:08 PM",
    "attachedZoneUuids": [
      "073a93204ff54164af04748a7c2697c6"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	CephBackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	0.6

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
fsid	String		0.6
poolName	String		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6
poolUsedCapacity	Long		2.3.2
poolReplicatedSize	Integer		2.3.2
poolAvailableCapacity	Long		2.3.2
mons	List	See mons .	0.6

#mons

Name	Type	Description	Starting Version
hostname	String		0.6
monPort	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
monAddr	String		0.6
sshPort	Integer		0.6
status	String		0.6
sshUsername	String		0.6
sshPassword	String		0.6
monUuid	String		0.6

SDK Sample

Java SDK

```
UpdateCephBackupStorageMonAction action = new UpdateCephBackupStorageMonAction();
action.monUuid = "84b6fb1a92354d7081ac68d49c2c8346";
action.hostname = "10.0.1.4";
action.sessionId = "7012077b892a4102a98bc1a6a10b1b4f";
```

```
UpdateCephBackupStorageMonAction.Result res = action.call();
```

Python SDK

```
UpdateCephBackupStorageMonAction action = UpdateCephBackupStorageMonAction()
action.monUuid = "622aa943b0204bf3a6c44e63321823f4"
action.hostname = "10.0.1.4"
action.sessionId = "5958f913a1464da58e1be33de69d470b"
UpdateCephBackupStorageMonAction.Result res = action.call()
```

5.2.6.16.4 AddMonToCephBackupStorage

API Request

URLs

```
DELETE zstack/v1/backup-storage/ceph/{uuid}/mons
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"monUrls":["10.0.1.3"]}}' \
http://localhost:8080/zstack/v1/backup-storage/ceph/5229b4e9acf934e1a80337a8090d72d1/mons
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the Ceph backup storage.		0.6
monUrls	List	body	The URLs of the Ceph mon (monitor daemon).		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "mons": [
      {
        "monAddr": "10.0.1.2",
        "monUuid": "d79571a057c94c41b0fad2ca688a6cec"
      }
    ],
    "name": "My Ceph Backup Storage",
    "description": "Public Ceph Backup Storage",
    "totalCapacity": 1.073741824E9,
    "availableCapacity": 9.68884224E8,
    "type": "Ceph",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Jun 7, 2017 9:20:30 PM",
    "lastOpDate": "Jun 7, 2017 9:20:30 PM",
    "attachedZoneUuids": [
      "4fd92cde485a4225b97c86846c9f586c"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	CephBackup StorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
fsid	String		0.6
poolName	String		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6
poolAvailableCapacity	Long		2.3.2

Name	Type	Description	Starting Version
poolUsedCapacity	Long		2.3.2
poolReplicatedSize	Integer		2.3.2
mons	List	See mons .	0.6

#mons

Name	Type	Description	Starting Version
hostname	String		0.6
monPort	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
monAddr	String		0.6
sshPort	Integer		0.6
status	String		0.6
sshUsername	String		0.6
sshPassword	String		0.6
monUuid	String		0.6

SDK Sample

Java SDK

```
RemoveMonFromCephBackupStorageAction action = new RemoveMonFromCephBackupStorageAction();
action.uuid = "728cc9123a694a39a9e1915d9e50ee9f";
action.monHostnames = asList("10.0.1.2");
action.sessionId = "e12938edf7634fcebba3938d07acde47";
RemoveMonFromCephBackupStorageAction.Result res = action.call();
```

Python SDK

```
RemoveMonFromCephBackupStorageAction action = RemoveMonFromCephBackupStorageAction()
action.uuid = "eede3cd9cbca4b3289e92a976619b67d"
action.monHostnames = [10.0.1.2]
action.sessionId = "fb2ddd76c26f43729fe5346e196c8532"
```



```
RemoveMonFromCephBackupStorageAction.Result res = action.call()
```

5.2.6.16.5 RemoveMonFromCephBackupStorage

API Response

URLs

```
DELETE zstack/v1/backup-storage/ceph/{uuid}/mons?
monHostnames={monHostnames}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 861c8d1f7c6c483fbde2a23f8e846e4a" \
-X DELETE http://localhost:8080/zstack/v1/backup-storage/
ceph/3a6bd95933784fc49717392356cb67f3/mons?monHostnames=10.0.1.2
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the Ceph backup storage.		0.6
monHostnames	List	body	The hostnames of the Ceph mon (monitor daemon).		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "mons": [
```

```

    {
      "monAddr": "10.0.1.2",
      "monUuid": "d79571a057c94c41b0fad2ca688a6cec"
    },
    {
      "name": "My Ceph Backup Storage",
      "description": "Public Ceph Backup Storage",
      "totalCapacity": 1.073741824E9,
      "availableCapacity": 9.68884224E8,
      "type": "Ceph",
      "state": "Enabled",
      "status": "Connected",
      "createDate": "Jun 7, 2017 9:20:30 PM",
      "lastOpDate": "Jun 7, 2017 9:20:30 PM",
      "attachedZoneUuids": [
        "4fd92cde485a4225b97c86846c9f586c"
      ]
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	CephBackupStorageInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
fsid	String		0.6
poolName	String		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
url	String		0.6
description	String	The detailed description of the resource.	0.6
totalCapacity	Long		0.6
availableCapacity	Long		0.6
type	String		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedZoneUuids	List		0.6
poolUsedCapacity	Long		2.3.2
poolReplicatedSize	Integer		2.3.2
poolAvailableCapacity	Long		2.3.2
mons	List	See mons .	0.6

#mons

Name	Type	Description	Starting Version
hostname	String		0.6
monPort	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
backupStorageUuid	String	The backup storage UUID.	0.6
monAddr	String		0.6
sshPort	Integer		0.6
status	String		0.6
sshUsername	String		0.6
sshPassword	String		0.6
monUuid	String		0.6

SDK Sample

Java SDK

```
RemoveMonFromCephBackupStorageAction action = new RemoveMonFromCephBackupStorageAction();
action.uuid = "728cc9123a694a39a9e1915d9e50ee9f";
action.monHostnames = asList("10.0.1.2");
action.sessionId = "e12938edf7634fcebba3938d07acde47";
RemoveMonFromCephBackupStorageAction.Result res = action.call();
```

Python SDK

```
RemoveMonFromCephBackupStorageAction action = RemoveMonFromCephBackupStorageAction()
action.uuid = "eede3cd9cbca4b3289e92a976619b67d"
action.monHostnames = ["10.0.1.2"]
action.sessionId = "fb2ddd76c26f43729fe5346e196c8532"
RemoveMonFromCephBackupStorageAction.Result res = action.call()
```

5.2.7 SAN Storage Operations

5.2.7.1 QueryScsiLun

API Request

URLs

```
GET zstack/v1/storage-devices/scsi-lun/luns
```

```
GET zstack/v1/storage-devices/scsi-lun/luns/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/scsi-lun/luns
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/scsi-lun/luns/
c4006c2a536f3617944e2b00aff74af6
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryScsiLun**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "fc-lun-36b083fe000daf018000022905ba35d8f",
      "uuid": "6f2428969262315488684c85e14eded2",
      "wwid": "36b083fe000daf018000022905ba35d8f",
      "vendor": "DELL",
      "model": "MD32xx",
      "wwn": "0x6f01faf000d5c3e7",
      "serial": "6b083fe000daf018000015505abbe00a",
      "type": "mpath",
      "path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-11",
      "size": 5.49755813888E12,
      "scsiLunHostRefs": [
        {
          "id": 1.0,
          "scsiLunUuid": "6f2428969262315488684c85e14eded2",
          "hostUuid": "0b756ca2d3843412860b7ec1b9315dd4",
          "createDate": "Nov 14, 2017 10:20:57 PM"
        }
      ],
      "scsiLunVmInstanceRefs": [],
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    {
      "name": "iscsi-lun-scsi-14f504e46494c45524d5342436a6c2d4a4443672d30593032",
      "uuid": "7bfde6b8e5503606849a4f3781bc02d7",
      "wwid": "scsi-14f504e46494c45524d5342436a6c2d4a4443672d30593032"
    },
  ],
}
```

```

    "vendor": "OPNFILER",
    "model": "VIRTUAL-DISK",
    "serial": "4f504e46494c45524d5342436a6c2d4a4443672d30593032",
    "type": "disk",
    "path": "ip-10.0.104.213:3260-iscsi-iqn.2018-09.io.zstack:tsn.
00000003-lun-0",
    "size": 5.49755813888E12,
    "scsiLunHostRefs": [],
    "scsiLunVmInstanceRefs": [],
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.2.0
inventories	List	See inventories .	3.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.2.0
description	String	The brief description of the error.	3.2.0
details	String	The details about the error.	3.2.0
elaboration	String	The reserved field. Default value: null.	3.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.2.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
name	String	The resource name.	3.2.0
uuid	String	The resource UUID.	3.2.0
wwid	String	The disk WWID.	3.2.0
vendor	String	The disk vendor.	3.2.0
model	String	The disk model.	3.2.0
wwn	String	The disk WWN.	3.2.0
serial	String	The disk serial No.	3.2.0
type	String	The disk type.	3.2.0
path	String	The disk path.	3.2.0
state	String	The disk state.	3.2.0
size	Long	The disk size.	3.2.0
createDate	Timestamp	The creation date.	3.2.0
lastOpDate	Timestamp	The last operation date.	3.2.0
scsiLunHostRefs	List	See scsiLunHostRefs .	3.2.0
scsiLunVml nstanceRefs	List	See scsiLunVmlInstanceRefs .	3.2.0

#scsiLunHostRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.2.0
hostUuid	String	The host UUID.	3.2.0
createDate	Timestamp	The creation date.	3.2.0
lastOpDate	Timestamp	The last operation date.	3.2.0

#scsiLunVmlInstanceRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.2.0
vmInstanceUuid	String	The VM instance UUID.	3.2.0
createDate	Timestamp	The creation date.	3.2.0
lastOpDate	Timestamp	The last operation date.	3.2.0

SDK Sample

Java SDK

```
QueryScsiLunAction action = new QueryScsiLunAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryScsiLunAction.Result res = action.call();
```

Python SDK

```
QueryScsiLunAction action = QueryScsiLunAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryScsiLunAction.Result res = action.call()
```

5.2.7.2 DetachScsiLunFromHost

API Request

URLs

```
PUT zstack/v1/storage-devices/scsi-lun/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "detachScsiLunFromHost": {
    "hostUuid": "dce542427a3a3d1fa13324c9f67352cb"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"detachScsiLunFromHost":
{"hostUuid":"dce542427a3a3d1fa13324c9f67352cb"}}' http://
localhost:8080/zstack/v1/storage-devices/scsi-lun/
fb5d3f596f683bd7a3b1bf1c396d5f4d/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The SCSI LUN UUID.		4.2.0
hostUuid	String	body (contained in the detachScsiLunFromHost structure)	Optional. The host UUID.		4.2.0
systemTags	List	body	Optional. The system tags.		4.2.0
userTags	List	body	Optional. The user tags.		4.2.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-scsi-lun",
    "uuid": "e09fbca6d27332a1946326f3ae114fc3",
    "wwid": "36b083fe000daf018000022905ba35d8f",
    "vendor": "DELL",
    "model": "MD32xx",
    "wwn": "0x6f01faf000d5c3e7",
    "serial": "6b083fe000daf018000015505abbe00a",
    "type": "mpath",
    "path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-11",
    "size": 5.49755813888E12,
    "scsiLunHostRefs": [],
    "scsiLunVmInstanceRefs": [],
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.2.0
inventories	List	See inventory .	4.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.2.0
description	String	The brief description of the error.	4.2.0
details	String	The details about the error.	4.2.0
elaboration	String	The reserved field. Default value: null.	4.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.2.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	4.2.0
uuid	String	The resource UUID.	4.2.0

Name	Type	Description	Starting Version
wwid	String	The disk WWID.	4.2.0
vendor	String	The disk vendor.	4.2.0
model	String	The disk model.	4.2.0
wwn	String	The disk WWN.	4.2.0
serial	String	The disk serial No.	4.2.0
type	String	The disk type.	4.2.0
path	String	The disk path.	4.2.0
state	String	The disk state.	4.2.0
size	Long	The disk size.	4.2.0
createDate	Timestamp	The creation time.	4.2.0
lastOpDate	Timestamp	The last operation time .	4.2.0
scsiLunHostRefs	List	See scsiLunHostRefs .	4.2.0
scsiLunVmInstanceRefs	List	See scsiLunVmInstanceRefs .	4.2.0

#scsiLunHostRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	4.2.0
hostUuid	String	The host UUID.	4.2.0
createDate	Timestamp	The creation time.	4.2.0
lastOpDate	Timestamp	The last operation time .	4.2.0

#scsiLunVmInstanceRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	4.2.0
vmInstanceUuid	String	The VM instance UUID.	4.2.0
createDate	Timestamp	The creation time.	4.2.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation time	4.2.0

SDK Sample

Java SDK

```
DetachScsiLunFromHostAction action = new DetachScsiLunFromHostAction
();
action.uuid = "fb5d3f596f683bd7a3b1bf1c396d5f4d";
action.hostUuid = "dce542427a3a3d1fa13324c9f67352cb";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachScsiLunFromHostAction.Result res = action.call();
```

Python SDK

```
DetachScsiLunFromHostAction action = DetachScsiLunFromHostAction()
action.uuid = "fb5d3f596f683bd7a3b1bf1c396d5f4d"
action.hostUuid = "dce542427a3a3d1fa13324c9f67352cb"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachScsiLunFromHostAction.Result res = action.call()
```

5.2.7.3 iSCSI Server Operations

5.2.7.3.1 AddlscsiServer

API Request

URLs

```
POST zstack/v1/storage-devices/iscsi/servers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "ip": "10.0.0.201",
    "port": 3260.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"ip":"10.0.0.201","port":3260.0}}' http://
localhost:8080/zstack/v1/storage-devices/iscsi/servers
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	Optional. The resource name.		3.0.0
ip	String	body (contained in the params structure)	The IP address.		3.0.0
port	Integer	body (contained in the params structure)	Optional. The port. Default port: 3260.		3.0.0
chapUserName	String	body (contained in the params structure)	Optional. The CHAP user name. Default value: null.		3.0.0
chapUserPassword	String	body (contained in the params structure)	Optional. The CHAP password. Default value: null.		3.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0b77c2e947ca3b40b79f6342728ec8fc",
    "name": "iscsi-server-10.0.0.201",
    "ip": "10.0.0.201",
    "port": 3260.0,
    "chapUserName": "username",
    "chapUserPassword": "password",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	IscsiServerInventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
ip	String	The IP address.	3.0.0
port	Integer	The port.	3.0.0
chapUserName	String	The CHAP user name.	3.0.0
chapUserPassword	String	The CHAP password.	3.0.0
state	String	The state.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiTargets	List	See iscsiTargets .	3.0.0
iscsiClusterRefs	List	See iscsiClusterRefs .	3.0.0

#iscsiTargets

Name	Type	Description	Starting Version
iscsiServerUuid	String	The iSCSI server UUID.	3.0.0
uuid	String	The resource UUID.	3.0.0
iqn	String	The iSCSI IQN.	3.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiLuns	List	See iscsiLuns .	3.0.0

#iscsiLuns

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
iscsiTargetUuid	String	The iSCSI target UUID.	3.0.0
wwid	String	The device WWID.	3.0.0
vendor	String	The device vendor.	3.0.0
model	String	The device model.	3.0.0
wwn	String	The device WWN.	3.0.0
serial	String	The device serial No.	3.0.0
hctl	String	The SCSI device HCTL.	3.0.0
type	String	The device type.	3.0.0
path	String	The device path.	3.0.0
size	Long	The device size.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

#iscsiClusterRefs

Name	Type	Description	Starting Version
iscsiServerUuid	String		3.0.0
clusterUuid	String	The cluster UUID.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

SDK Sample

Java SDK

```
AddIscsiServerAction action = new AddIscsiServerAction();
action.ip = "10.0.0.201";
action.port = 3260.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddIscsiServerAction.Result res = action.call();
```

Python SDK

```
AddIscsiServerAction action = AddIscsiServerAction()
action.ip = "10.0.0.201"
action.port = 3260.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddIscsiServerAction.Result res = action.call()
```

5.2.7.3.2 DeleteIscsiServer

API Request

URLs

```
DELETE zstack/v1/storage-devices/iscsi/servers/{uuid}?
deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/storage-devices/iscsi/
servers/7a3f7749fd393899b4b74d2b470e15eb?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The iSCSI server UUID.		3.0.0
deleteMode	String	url	Optional. The delete mode.		3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		3.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteIscsiServerAction action = new DeleteIscsiServerAction();
action.uuid = "7a3f7749fd393899b4b74d2b470e15eb";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteIscsiServerAction.Result res = action.call();
```

Python SDK

```
DeleteIscsiServerAction action = DeleteIscsiServerAction()
action.uuid = "7a3f7749fd393899b4b74d2b470e15eb"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteIscsiServerAction.Result res = action.call()
```

5.2.7.3.3 QueryIscsiServer

API Request

URLs

```
GET zstack/v1/storage-devices/iscsi/servers
GET zstack/v1/storage-devices/iscsi
```

```
GET zstack/v1/storage-devices/iscsi/servers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/iscsi/servers
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/iscsi
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/iscsi/servers/
cf91d809261735be9f20429880c1d19c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIscsiServer**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "fd97e8b6d61c399abed358ea6b2fc206",
      "name": "iscsi-server-10.0.0.201",
      "ip": "10.0.0.201",
      "port": 3260.0,
      "chapUserName": "username",
      "chapUserPassword": "password",
      "state": "Enabled",
      "iscsiTargets": [
        {
          "iscsiServerUuid": "fd97e8b6d61c399abed358ea6b2fc206",
          "uuid": "d156429110f13c2ca07bbc04e4031231",
          "iqn": "iqn.2018-01.io.zstack:tsn.00001",
          "state": "Enabled",
          "iscsiLuns": [
            {
              "uuid": "500f63c8f44939bbab102222927f9290",
              "iscsiTargetUuid": "d156429110f13c2ca07bbc04e4031231",
              "wwid": "36b083fe000daf018000015505abbe00a",
              "vendor": "DELL",
              "model": "MD32xx",
              "wwn": "0x6b083fe000daf018",
              "serial": "6b083fe000daf018000015505abbe00a",
              "hctl": "6:0:1:1",
```

```

        "type": "mpath",
        "path": "ip-0.0.0.201:3260-iscsi-iqn.2018-01.io.zstack:
tsn.00001-lun-0",
        "size": 3.000318820352E13,
        "multipathDeviceUuid": "36b083fe000daf018000015505abbe
00a"
    },
    ],
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
],
"iscsiClusterRefs": [
{
    "id": 1.0,
    "iscsiServerUuid": "fd97e8b6d61c399abed358ea6b2fc206",
    "clusterUuid": "02db8eb4e3043f55b7f1cf02df735611",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
],
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventories	List	See inventories	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
ip	String	The IP address.	3.0.0
port	Integer	The port.	3.0.0
chapUserName	String	The CHAP user name.	3.0.0
chapUserPassword	String	The CHAP password.	3.0.0
state	String	The state.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiTargets	List	See iscsiTargets	3.0.0
iscsiClusterRefs	List	See iscsiClusterRefs	3.0.0

#iscsiTargets

Name	Type	Description	Starting Version
iscsiServerUuid	String	The iSCSI server UUID.	3.0.0
uuid	String	The resource UUID.	3.0.0
iqn	String	The iSCSI IQN.	3.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiLuns	List	See iscsiLuns .	3.0.0

#iscsiLuns

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
iscsiTargetUuid	String	The iSCSI target UUID.	3.0.0
wwid	String	The device WWID.	3.0.0
vendor	String	The device vendor.	3.0.0
model	String	The device model.	3.0.0
wwn	String	The device WWN.	3.0.0
serial	String	The device serial No.	3.0.0
hctl	String	The SCSI device HCTL.	3.0.0
type	String	The device type.	3.0.0
path	String	The device path.	3.0.0
size	Long	The device size.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

#iscsiClusterRefs

Name	Type	Description	Starting Version
iscsiServerUuid	String		3.0.0
clusterUuid	String	The cluster UUID.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

SDK Sample

Java SDK

```
QueryIscsiServerAction action = new QueryIscsiServerAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryIscsiServerAction.Result res = action.call();
```

Python SDK

```
QueryIscsiServerAction action = QueryIscsiServerAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryIscsiServerAction.Result res = action.call()
```

5.2.7.3.4 RefreshIscsiServer

API Request

URLs

```
POST zstack/v1/storage-devices/iscsi/servers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/storage-devices/iscsi/servers/0243c5d7322a36718ad76d865682ba44
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0
userTags	List	body	Optional. The user tags.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a4a3ef3c3ed537e6b1040ee4b7d77686",
    "name": "iscsi-server-10.0.0.201",
    "ip": "10.0.0.201",
    "port": 3260.0,
    "chapUserName": "username",
    "chapUserPassword": "password",
    "state": "Enabled",
    "iscsiTargets": [
      {
        "iscsiServerUuid": "a4a3ef3c3ed537e6b1040ee4b7d77686",
        "uuid": "3da0cdedd9763edfab39a897f87454e9",
        "iqn": "iqn.2018-01.io.zstack:tsn.00001",
        "iscsiLuns": [
          {
            "uuid": "f569b3e3baf838e59d8a115458d72a9b",
            "iscsiTargetUuid": "3da0cdedd9763edfab39a897f87454e9",
            "wwid": "36b083fe000daf018000015505abbe00a",
            "vendor": "DELL",
            "model": "MD32xx",
            "wwn": "0x6b083fe000daf018",
            "serial": "6b083fe000daf018000015505abbe00a",
            "hctl": "6:0:1:1",
            "type": "mpath",
            "path": "ip-0.0.0.201:3260-iscsi-iqn.2018-01.io.zstack:tsn.00001-lun-0",
            "size": 3.000318820352E13,
            "multipathDeviceUuid": "36b083fe000daf018000015505abbe00a"
          }
        ],
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "iscsiClusterRefs": [
      {
        "id": 1.0,
        "iscsiServerUuid": "a4a3ef3c3ed537e6b1040ee4b7d77686",
        "clusterUuid": "da1ddc379fc137789b12bcac0ed90148",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}
```



```

    }
  ],
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	IscsiServerInventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
ip	String	The IP address.	3.0.0
port	Integer	The port.	3.0.0
chapUserName	String	The CHAP user name.	3.0.0
chapUserPassword	String	The CHAP password.	3.0.0
state	String	The state.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiTargets	List	See iscsiTargets .	3.0.0
iscsiClusterRefs	List	See iscsiClusterRefs .	3.0.0

#iscsiTargets

Name	Type	Description	Starting Version
iscsiServerUuid	String	The iSCSI server UUID.	3.0.0
uuid	String	The resource UUID.	3.0.0
iqn	String	The iSCSI IQN.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiLuns	List	See iscsiLuns .	3.0.0

#iscsiLuns

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
iscsiTargetUuid	String	The iSCSI target UUID.	3.0.0
wwid	String	The device WWID.	3.0.0
vendor	String	The device vendor.	3.0.0

Name	Type	Description	Starting Version
model	String	The device model.	3.0.0
wwn	String	The device WWN.	3.0.0
serial	String	The device serial No.	3.0.0
hctl	String	The SCSI device HCTL.	3.0.0
type	String	The device type.	3.0.0
path	String	The device path.	3.0.0
size	Long	The device size.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

#iscsiClusterRefs

Name	Type	Description	Starting Version
iscsiServerUuid	String		3.0.0
clusterUuid	String	The cluster UUID.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

SDK Sample

Java SDK

```
RefreshIscsiServerAction action = new RefreshIscsiServerAction();
action.uuid = "0243c5d7322a36718ad76d865682ba44";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RefreshIscsiServerAction.Result res = action.call();
```

Python SDK

```
RefreshIscsiServerAction action = RefreshIscsiServerAction()
action.uuid = "0243c5d7322a36718ad76d865682ba44"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RefreshIscsiServerAction.Result res = action.call()
```

5.2.7.3.5 UpdateIscsiServer

API Request

URLs

```
POST zstack/v1/storage-devices/iscsi/servers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateIscsiServer": {
    "name": "test-iscsi-server"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateIscsiServer":{"name":"test-iscsi-server"}}'
http://localhost:8080/zstack/v1/storage-devices/iscsi/
servers/98d2177199ca301d9fd842eace2dbc67/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.0.0
name	String	body (contained in	Optional. The resource name.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
chapUserName	String	body (contained in the params structure)	Optional. The CHAP user name.		3.0.0
chapUserPassword	String	body (contained in the params structure)	Optional. The CHAP password.		3.0.0
state	String	body (contained in the params structure)	Optional. The state.	• Enabled • Disabled	3.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0
userTags	List	body	Optional. The user tags.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0b77c2e947ca3b40b79f6342728ec8fc",
    "name": "iscsi-server-10.0.0.201",
    "ip": "10.0.0.201",
    "port": 3260.0,
    "chapUserName": "username",
    "chapUserPassword": "password",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	IscsiServerInventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0

Name	Type	Description	Starting Version
ip	String	The IP address.	3.0.0
port	Integer	The port.	3.0.0
chapUserName	String	The CHAP user name.	3.0.0
chapUserPassword	String	The CHAP password.	3.0.0
state	String	The state.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiTargets	List	See iscsiTargets .	3.0.0
iscsiClusterRefs	List	See iscsiClusterRefs .	3.0.0

#iscsiTargets

Name	Type	Description	Starting Version
iscsiServerUuid	String	The iSCSI server UUID.	3.0.0
uuid	String	The resource UUID.	3.0.0
iqn	String	The iSCSI IQN.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiLuns	List	See iscsiLuns .	3.0.0

#iscsiLuns

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
iscsiTargetUuid	String	The iSCSI target UUID.	3.0.0
wwid	String	The device WWID.	3.0.0
vendor	String	The device vendor.	3.0.0
model	String	The device model.	3.0.0
wwn	String	The device WWN.	3.0.0

Name	Type	Description	Starting Version
serial	String	The device serial No.	3.0.0
hctl	String	The SCSI device HCTL.	3.0.0
type	String	The device type.	3.0.0
path	String	The device path.	3.0.0
size	Long	The device size.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

#iscsiClusterRefs

Name	Type	Description	Starting Version
iscsiServerUuid	String		3.0.0
clusterUuid	String	The cluster UUID.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

SDK Sample

Java SDK

```
UpdateIscsiServerAction action = new UpdateIscsiServerAction();
action.uuid = "98d2177199ca301d9fd842eace2dbc67";
action.name = "test-iscsi-server";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateIscsiServerAction.Result res = action.call();
```

Python SDK

```
UpdateIscsiServerAction action = UpdateIscsiServerAction()
action.uuid = "98d2177199ca301d9fd842eace2dbc67"
action.name = "test-iscsi-server"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
UpdateIscsiServerAction.Result res = action.call()
```

5.2.7.3.6 AttachIscsiServerToCluster

API Request

URLs

```
POST zstack/v1/clusters/{clusterUuid}/storage-devices/iscsi/servers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/
clusters/ee5a78dfa67b34598e9fe734111592a7/storage-devices/iscsi/
servers/3ae1ec6d33d53ab7b8cea6e33e517e28
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The iSCSI server UUID.		3.0.0
clusterUuid	String	url	The cluster UUID.		3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a3d69cbb4ccc35f49354f34b9a52833d",
    "name": "iscsi-server-10.0.0.201",
    "ip": "10.0.0.201",
    "port": 3260,
    "chapUserName": "username",
    "chapUserPassword": "password",
    "state": "Enabled",
    "iscsiTargets": [
      {
        "iscsiServerUuid": "a3d69cbb4ccc35f49354f34b9a52833d",
        "uuid": "0a0f4da9f2ba3fddac178737e11cef73",
        "iqn": "iqn.2018-01.io.zstack:tsn.00001",
        "state": "Enabled",
        "iscsiLuns": [
          {
            "uuid": "f63e921f951435ee9d18901b8eccf986",
            "iscsiTargetUuid": "0a0f4da9f2ba3fddac178737e11cef73",
            "wwid": "36b083fe000daf018000015505abbe00a",
            "vendor": "DELL",
            "model": "MD32xx",
            "wwn": "0x6b083fe000daf018",
            "serial": "6b083fe000daf018000015505abbe00a",
            "hctl": "6:0:1:1",
            "type": "mpath",
            "path": "ip-0.0.0.201:3260-iscsi-iqn.2018-01.io.zstack:tsn.00001-lun-0",
            "size": 3.000318820352E13,
            "multipathDeviceUuid": "36b083fe000daf018000015505abbe00a"
          }
        ],
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "iscsiClusterRefs": [
      {
        "id": 1.0,
        "iscsiServerUuid": "a3d69cbb4ccc35f49354f34b9a52833d",
        "clusterUuid": "962af991872e3ac98a2c4a7385f92541",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	IscsiServerInventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0

Name	Type	Description	Starting Version
ip	String	The IP address.	3.0.0
port	Integer	The port.	3.0.0
chapUserName	String	The CHAP user name.	3.0.0
chapUserPassword	String	The CHAP password.	3.0.0
state	String	The state.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiTargets	List	See iscsiTargets .	3.0.0
iscsiClusterRefs	List	See iscsiClusterRefs .	3.0.0

#iscsiTargets

Name	Type	Description	Starting Version
iscsiServerUuid	String	The iSCSI server UUID.	3.0.0
uuid	String	The resource UUID.	3.0.0
iqn	String	The iSCSI IQN.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiLuns	List	See iscsiLuns .	3.0.0

#iscsiLuns

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
iscsiTargetUuid	String	The iSCSI target UUID.	3.0.0
wwid	String	The device WWID.	3.0.0
vendor	String	The device vendor.	3.0.0
model	String	The device model.	3.0.0
wwn	String	The device WWN.	3.0.0

Name	Type	Description	Starting Version
serial	String	The device serial No.	3.0.0
hctl	String	The SCSI device HCTL.	3.0.0
type	String	The device type.	3.0.0
path	String	The device path.	3.0.0
size	Long	The device size.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

#iscsiClusterRefs

Name	Type	Description	Starting Version
iscsiServerUuid	String		3.0.0
clusterUuid	String	The cluster UUID.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

SDK Sample

Java SDK

```
AttachIscsiServerToClusterAction action = new AttachIscsiServerToClusterAction();
action.uuid = "3ae1ec6d33d53ab7b8cea6e33e517e28";
action.clusterUuid = "ee5a78dfa67b34598e9fe734111592a7";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachIscsiServerToClusterAction.Result res = action.call();
```

Python SDK

```
AttachIscsiServerToClusterAction action = AttachIscsiServerToClusterAction()
action.uuid = "3ae1ec6d33d53ab7b8cea6e33e517e28"
action.clusterUuid = "ee5a78dfa67b34598e9fe734111592a7"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachIscsiServerToClusterAction.Result res = action.call()
```

5.2.7.3.7 DetachIscsiServerFromCluster

API Request

URLs

```
DELETE zstack/v1/clusters/{clusterUuid}/storage-devices/iscsi/servers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
clusters/81ecbd4ae7c9346aa3225592441c36df/storage-devices/iscsi/
servers/132d1caceecd3847b30bd901485ccc44
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The iSCSI server UUID.		3.0.0
clusterUuid	String	url	The cluster UUID.		3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0
userTags	List	body	Optional. The user tags.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2c42d5e271e93a91a4467bf936a21018",
    "ip": "10.0.0.201",
    "port": 3260.0,
    "chapUserName": "username",
    "chapUserPassword": "password",
    "state": "Enabled",
    "iscsiTargets": [
```

```

{
  "iscsiServerUuid": "2c42d5e271e93a91a4467bf936a21018",
  "uuid": "84fb04ce8ac03803b99cab5cccd831d1",
  "iqn": "iqn.2018-01.io.zstack:tsn.00001",
  "state": "Enabled",
  "iscsiLuns": [
    {
      "uuid": "44d2c6a338123031a55ce32f102432af",
      "iscsiTargetUuid": "84fb04ce8ac03803b99cab5cccd831d1",
      "wwid": "36b083fe000daf018000015505abbe00a",
      "vendor": "DELL",
      "model": "MD32xx",
      "wwn": "0x6b083fe000daf018",
      "serial": "6b083fe000daf018000015505abbe00a",
      "hctl": "6:0:1:1",
      "type": "mpath",
      "path": "ip-0.0.0.201:3260-iscsi-iqn.2018-01.io.zstack:tsn.00001-lun-0",
      "size": 3.000318820352E13,
      "multipathDeviceUuid": "36b083fe000daf018000015505abbe00a"
    }
  ],
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
},
{
  "iscsiClusterRefs": [
    {
      "id": 1.0,
      "iscsiServerUuid": "2c42d5e271e93a91a4467bf936a21018",
      "clusterUuid": "ced139d5eded3049bbfe8364804fa8c0",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ],
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	IscsiServerInventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	3.0.0

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
ip	String	The IP address.	3.0.0
port	Integer	The port.	3.0.0
chapUserName	String	The CHAP user name.	3.0.0
chapUserPassword	String	The CHAP password.	3.0.0
state	String	The state.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiTargets	List	See iscsiTargets .	3.0.0
iscsiClusterRefs	List	See iscsiClusterRefs .	3.0.0

#iscsiTargets

Name	Type	Description	Starting Version
iscsiServerUuid	String	The iSCSI server UUID.	3.0.0
uuid	String	The resource UUID.	3.0.0
iqn	String	The iSCSI IQN.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
iscsiLuns	List	See iscsiLuns .	3.0.0

#iscsiLuns

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
iscsiTargetUuid	String	The iSCSI target UUID.	3.0.0
wwid	String	The device WWID.	3.0.0
vendor	String	The device vendor.	3.0.0
model	String	The device model.	3.0.0
wwn	String	The device WWN.	3.0.0
serial	String	The device serial No.	3.0.0
hctl	String	The SCSI device HCTL.	3.0.0
type	String	The device type.	3.0.0
path	String	The device path.	3.0.0
size	Long	The device size.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

#iscsiClusterRefs

Name	Type	Description	Starting Version
iscsiServerUuid	String		3.0.0

Name	Type	Description	Starting Version
clusterUuid	String	The cluster UUID.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

SDK Sample

Java SDK

```
DetachIscsiServerFromClusterAction action = new DetachIscsiServerFromClusterAction();
action.uuid = "132d1caceecd3847b30bd901485ccc44";
action.clusterUuid = "81ecbd4ae7c9346aa3225592441c36df";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachIscsiServerFromClusterAction.Result res = action.call();
```

Python SDK

```
DetachIscsiServerFromClusterAction action = DetachIscsiServerFromClusterAction()
action.uuid = "132d1caceecd3847b30bd901485ccc44"
action.clusterUuid = "81ecbd4ae7c9346aa3225592441c36df"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachIscsiServerFromClusterAction.Result res = action.call()
```

5.2.7.3.8 QueryIscsiLun

API Request

URLs

```
GET zstack/v1/storage-devices/iscsi/luns
GET zstack/v1/storage-devices/iscsi/luns/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/iscsi/luns
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/storage-devices/iscsi/luns/da96929549c63b66b8afc63be70a373f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIscsiLun**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "d833304319da3b32bc92f21c763a8e5b",
      "wwid": "36b083fe000daf018000015505abbe00a",
      "vendor": "DELL",
      "model": "MD32xx",
      "wwn": "0x6b083fe000daf018",
      "serial": "6b083fe000daf018000015505abbe00a",
      "hctl": "6:0:1:1",
      "type": "mpath",
      "path": "ip-0.0.0.201:3260-iscsi-iqn.2018-01.io.zstack:tsn.00001-lun-0",
      "size": 3.000318820352E13,
      "multipathDeviceUuid": "36b083fe000daf018000015505abbe00a"
    },
    {
      "uuid": "a21ee1e2e3f63a61ac983c53c29552d2",
      "wwid": "36b083fe000daf018000015505abbe00a",
      "vendor": "DELL",
      "model": "MD32xx",
      "wwn": "0x6b083fe000daf018",
      "serial": "6b083fe000daf018000015505abbe00a",
      "hctl": "6:0:3:1",
      "type": "mpath",
      "path": "ip-0.0.0.201:3260-iscsi-iqn.2018-01.io.zstack:tsn.00002-lun-0",
      "size": 3.000318820352E13,
      "multipathDeviceUuid": "36b083fe000daf018000015505abbe00a"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventories	List	See inventories .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
iscsiTargetUuid	String	The iSCSI target UUID .	3.0.0
wwid	String	The device WWID.	3.0.0
vendor	String	The device vendor.	3.0.0
model	String	The device model.	3.0.0
wwn	String	The device WWN.	3.0.0
serial	String	The device serial No.	3.0.0
hctl	String	The SCSI device HCTL.	3.0.0
type	String	The device type.	3.0.0

Name	Type	Description	Starting Version
path	String	The device path.	3.0.0
size	Long	The device size.	3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0

SDK Sample

Java SDK

```
QueryIscsiLunAction action = new QueryIscsiLunAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryIscsiLunAction.Result res = action.call();
```

Python SDK

```
QueryIscsiLunAction action = QueryIscsiLunAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryIscsiLunAction.Result res = action.call()
```

5.2.7.4 FC Storage Operations

5.2.7.4.1 QueryFiberChannelStorage

API Request

URLs

```
GET zstack/v1/storage-devices/fiber-channel/controllers
GET zstack/v1/storage-devices/fiber-channel
GET zstack/v1/storage-devices/fiber-channel/controllers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/fiber-channel/
controllers?
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/storage-devices/fiber-channel?
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/fiber-channel/
controllers/6ca3d260093e3c06840309e9e756b1bf
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryFiberChannelStorage`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "afedd6ab89d338fbaab258f981ca2295",
      "state": "Enabled",
      "fiberChannelLuns": [
        {
          "fiberChannelStorageUuid": "afedd6ab89d338fbaab258f981ca2295",
          "name": "fc-lun-36b083fe000daf018000022905ba35d8f",
          "uuid": "2e69f8443fbc3ec3a25a92ab8632f80f",
          "wwid": "36b083fe000daf018000022905ba35d8f",
          "vendor": "DELL",
          "model": "MD32xx",
          "wwn": "0x6f01faf000d5c3e7",
          "serial": "6b083fe000daf018000015505abbe00a",
          "type": "mpath",
          "path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-11",
          "size": 5.49755813888E12,
          "scsiLunHostRefs": [
            {
              "id": 3.0,
              "scsiLunUuid": "5a89fbd0d7793673acfa2e69acc56ce4",
              "hostUuid": "bc3f69d449aa3410bd7267a1050de980",
              "createDate": "Nov 14, 2017 10:20:57 PM",
              "lastOpDate": "Nov 14, 2017 10:20:57 PM"
            }
          ],
          "scsiLunVmInstanceRefs": []
        }
      ],
      "fiberChannelStorageUuid": "afedd6ab89d338fbaab258f981ca2295",
      "name": "fc-lun-36f01faf000d5c3e7000023ef5ba362f2",
      "uuid": "52039a86c9173ff7a86ce214fc3d47cf",
      "wwid": "36f01faf000d5c3e7000023ef5ba362f2",
      "vendor": "DELL",
      "model": "MD32xx",
      "wwn": "0x6b083fe000daf018",
      "serial": "6b083fe000daf018000015505abbe00a",
      "type": "mpath",
      "path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-12",
      "size": 5.49755813888E12,
    }
  ]
}
```

```

    "scsiLunHostRefs": [
      {
        "id": 3.0,
        "scsiLunUuid": "5a89fbd0d7793673acfa2e69acc56ce4",
        "hostUuid": "bc3f69d449aa3410bd7267a1050de980",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "scsiLunVmInstanceRefs": []
  },
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
},
{
  "uuid": "4e902db710403f68a7703e45d00e551d",
  "state": "Enabled",
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
name	String	The resource name.	3.1.0
wwnn	String	The FC SAN storage WWNN.	3.1.0
state	String	The state.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
fiberChannelLuns	List	See fiberChannelLuns .	3.1.0

#fiberChannelLuns

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
fiberChannelStorageUuid	String	The FC SAN storage UUID.	3.1.0
wwid	String	The disk WWID.	3.1.0
vendor	String	The disk vendor.	3.1.0
model	String	The disk model.	3.1.0
wwn	String	The disk WWN.	3.1.0
serial	String	The disk serial No.	3.1.0
type	String	The disk type.	3.1.0

Name	Type	Description	Starting Version
path	String	The disk path.	3.1.0
size	Long	The disk size.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
name	String	The resource name.	3.1.0
state	String	The disk state.	3.1.0
scsiLunHostRefs	List	See scsiLunHostRefs .	3.1.0
scsiLunVmlInstanceRefs	List	See scsiLunVmlInstanceRefs .	3.1.0

#scsiLunHostRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
hostUuid	String	The host UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

#scsiLunVmlInstanceRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
vmInstanceUuid	String	The VM instance UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
QueryFiberChannelStorageAction action = new QueryFiberChannelStorageAction();
action.conditions = asList();
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryFiberChannelStorageAction.Result res = action.call();
```

Python SDK

```
QueryFiberChannelStorageAction action = QueryFiberChannelStorageAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryFiberChannelStorageAction.Result res = action.call()
```

5.2.7.4.2 RefreshFiberChannelStorage

API Request

URLs

```
POST zstack/v1/storage-devices/fiber-channel/controllers
POST zstack/v1/storage-devices/fiber-channel/controllers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "uuid": "52049ca66e8135f5aac2835aecab62a0"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"uuid":"52049ca66e8135f5aac2835aecab62a0"}}'
http://localhost:8080/zstack/v1/storage-devices/fiber-channel/
controllers
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"uuid":"52049ca66e8135f5aac2835aecab62a0"}}'
http://localhost:8080/zstack/v1/storage-devices/fiber-channel/
controllers/52049ca66e8135f5aac2835aecab62a0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in the params structure)	Optional. The FC SAN storage UUID.		3.1.0
zoneUuid	String	body (contained in the params structure)	The zone UUID.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "971fa2e9e689304183d4eef676ad0241",
      "state": "Enabled",
      "fiberChannelLuns": [
        {
          "fiberChannelStorageUuid": "971fa2e9e689304183d4eef676ad0241",
          "name": "fc-lun-36b083fe000daf018000022905ba35d8f",
          "uuid": "2fb634b5c6ae3e1390360e982cdaf9d2",
          "wwid": "36b083fe000daf018000022905ba35d8f",
          "vendor": "DELL",
          "model": "MD32xx",
          "wwn": "0x6f01faf000d5c3e7",
          "serial": "6b083fe000daf018000015505abbe00a",
          "type": "mpath",
          "path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-11",
          "size": 5.49755813888E12,
          "scsiLunHostRefs": [
            {
              "id": 3.0,
              "scsiLunUuid": "fd0a53d0234e303c9ba7c316f5484a59",
              "hostUuid": "ef288e9807853188b76d3d445a35b345",
              "createDate": "Nov 14, 2017 10:20:57 PM",
              "lastOpDate": "Nov 14, 2017 10:20:57 PM"
            }
          ],
          "scsiLunVmInstanceRefs": []
        }
      ],
      "fiberChannelStorageUuid": "971fa2e9e689304183d4eef676ad0241"
    }
  ]
}
```

```

    "name": "fc-lun-36f01faf000d5c3e7000023ef5ba362f2",
    "uuid": "fb37b3bb268c38c3803b93ee60f25ef6",
    "wwid": "36f01faf000d5c3e7000023ef5ba362f2",
    "vendor": "DELL",
    "model": "MD32xx",
    "wwn": "0x6b083fe000daf018",
    "serial": "6b083fe000daf018000015505abbe00a",
    "type": "mpath",
    "path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-12",
    "size": 5.49755813888E12,
    "scsiLunHostRefs": [
      {
        "id": 3.0,
        "scsiLunUuid": "fd0a53d0234e303c9ba7c316f5484a59",
        "hostUuid": "ef288e9807853188b76d3d445a35b345",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "scsiLunVmInstanceRefs": []
  },
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
},
{
  "uuid": "ddc6eb334da838b08224ed6c43e67d0e",
  "state": "Enabled",
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
name	String	The resource UUID.	3.1.0
wwnn	String	The FC SAN storage WWNN.	3.1.0
state	String	The state.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
fiberChannelLuns	List	See fiberChannelLuns .	3.1.0

#fiberChannelLuns

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
fiberChannelStorageUuid	String	The FC SAN storage UUID.	3.1.0
wwid	String	The disk WWID.	3.1.0

Name	Type	Description	Starting Version
vendor	String	The disk vendor.	3.1.0
model	String	The disk model.	3.1.0
wwn	String	The disk WWN.	3.1.0
serial	String	The disk serial No.	3.1.0
type	String	The disk type.	3.1.0
path	String	The disk path.	3.1.0
size	Long	The disk size.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
name	String	The resource name.	3.1.0
state	String	The disk state.	3.1.0
scsiLunHostRefs	List	See scsiLunHostRefs .	3.1.0
scsiLunVmInstanceRefs	List	See scsiLunVmInstanceRefs .	3.1.0

#scsiLunHostRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
hostUuid	String	The host UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

#scsiLunVmInstanceRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
vmInstanceUuid	String	The VM instance UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
RefreshFiberChannelStorageAction action = new RefreshFiberChannels
storageAction();
action.uuid = "52049ca66e8135f5aac2835aecab62a0";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RefreshFiberChannelStorageAction.Result res = action.call();
```

Python SDK

```
RefreshFiberChannelStorageAction action = RefreshFiberChannels
storageAction()
action.uuid = "52049ca66e8135f5aac2835aecab62a0"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RefreshFiberChannelStorageAction.Result res = action.call()
```

5.2.7.4.3 UpdateScsiLun

API Request

URLs

```
PUT zstack/v1/storage-devices/scsi-lun/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateScsiLun": {
    "name": "test-scsi-lun"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateScsiLun":{"name":"test-scsi-lun"}}'
http://localhost:8080/zstack/v1/storage-devices/scsi-lun/
e2e9d7f44ee23960bc6e4e31b0a010d9/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
name	String	body (contained in the updateScsiLun structure)	Optional. The resource name.		3.1.0
state	String	body (contained in the updateScsiLun structure)	Optional. The state.	- Enabled - Disabled	3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-scsi-lun",
    "uuid": "57cefc1746340ba1649c446059aea0",
    "wwid": "36b083fe000daf018000022905ba35d8f",
    "vendor": "DELL",
    "model": "MD32xx",
    "wwn": "0x6f01faf000d5c3e7",
    "serial": "6b083fe000daf018000015505abbe00a",
    "type": "mpath",
    "path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-11",
    "size": 5.49755813888E12,
    "scsiLunHostRefs": [
      {
        "id": 1.0,
```



```

        "scsiLunUuid": "57cefcddc1746340ba1649c446059aea0",
        "hostUuid": "6e76dfbcc3b338c482ff51de1f0d76da",
        "createDate": "Nov 14, 2017 10:20:57 PM"
    },
    ],
    "scsiLunVmInstanceRefs": [],
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	ScsiLunInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
name	String	The resource UUID.	3.1.0
uuid	String	The FC SAN storage UUID.	3.1.0
wwid	String	The disk WWID.	3.1.0
vendor	String	The disk vendor.	3.1.0
model	String	The disk model.	3.1.0
wwn	String	The disk WWN.	3.1.0
serial	String	The disk serial No.	3.1.0
type	String	The disk type.	3.1.0
path	String	The disk path.	3.1.0
state	String	The disk state.	3.1.0
size	Long	The disk size.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
scsiLunHostRefs	List	See scsiLunHostRefs .	3.1.0
scsiLunVml nstanceRefs	List	See scsiLunVmlInstanceRefs .	3.1.0

#scsiLunHostRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
hostUuid	String	The host UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

#scsiLunVmlInstanceRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
UpdateScsiLunAction action = new UpdateScsiLunAction();
action.uuid = "e2e9d7f44ee23960bc6e4e31b0a010d9";
action.name = "test-scsi-lun";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateScsiLunAction.Result res = action.call();
```

Python SDK

```
UpdateScsiLunAction action = UpdateScsiLunAction()
action.uuid = "e2e9d7f44ee23960bc6e4e31b0a010d9"
action.name = "test-scsi-lun"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateScsiLunAction.Result res = action.call()
```

5.2.7.4.4 AttachScsiLunToVmInstance

API Request

URLs

```
POST zstack/v1/vm-instances/{vmInstanceUuid}/scsi-lun/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "disableMultiPathAttach": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"disableMultiPathAttach":false}}'
http://localhost:8080/zstack/v1/vm-instances/
e5bc51b4fdd13d35b4abe7be408435d4/scsi-lun/
e4ea0f73829b3206a497c88b896613d6
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The SCSI LUN UUID.		3.1.0
vmInstance Uuid	String	url	The VM instance UUID.		3.1.0
disableMultiPathAttach	String	url	Optional. Whether to turn off the switch for automatically attaching multi-path devices.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "fc-lun-36b083fe000daf018000022905ba35d8f",
    "uuid": "d20114f179003943904fee1127d16eba",
    "wwid": "36b083fe000daf018000022905ba35d8f",
    "vendor": "DELL",
    "model": "MD32xx",
    "wwn": "0x6f01faf000d5c3e7",
    "serial": "6b083fe000daf018000015505abbe00a",
    "type": "mpath",
```

```

"path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-11",
"size": 5.49755813888E12,
"scsiLunHostRefs": [
  {
    "id": 1.0,
    "scsiLunUuid": "d20114f179003943904fee1127d16eba",
    "hostUuid": "e62d261d3f293e0182f85779e105eb13",
    "createDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"scsiLunVmInstanceRefs": [
  {
    "id": 1.0,
    "scsiLunUuid": "d20114f179003943904fee1127d16eba",
    "vmInstanceUuid": "84af387a5ef034818cc8488eaddbf5f3",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "attachMultipath": false
  }
],
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM"
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	ScsiLunInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource UUID.	3.1.0
uuid	String	The iSCSI target UUID.	3.1.0
wwid	String	The device WWID.	3.1.0
vendor	String	The device vendor.	3.1.0
model	String	The device model.	3.1.0
wwn	String	The device WWN.	3.1.0
serial	String	The device serial No.	3.1.0
type	String	The device type.	3.1.0
path	String	The device path.	3.1.0
state	String	The device state.	3.1.0
size	Long	The device size.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
scsiLunHostRefs	List	See scsiLunHostRefs .	3.1.0
scsiLunVmlInstanceRefs	List	See scsiLunVmlInstanceRefs .	3.1.0

#scsiLunHostRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
hostUuid	String	The host UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

#scsiLunVmInstanceRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
vmInstanceUuid	String	The VM instance UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
AttachScsiLunToVmInstanceAction action = new AttachScsiLunToVmInstanceAction();
action.uuid = "e4ea0f73829b3206a497c88b896613d6";
action.vmInstanceUuid = "e5bc51b4fdd13d35b4abe7be408435d4";
action.disableMultiPathAttach = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachScsiLunToVmInstanceAction.Result res = action.call();
```

Python SDK

```
AttachScsiLunToVmInstanceAction action = AttachScsiLunToVmInstanceAction()
action.uuid = "e4ea0f73829b3206a497c88b896613d6"
action.vmInstanceUuid = "e5bc51b4fdd13d35b4abe7be408435d4"
action.disableMultiPathAttach = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachScsiLunToVmInstanceAction.Result res = action.call()
```

5.2.7.4.5 DetachScsiLunFromVmInstance

API Request

URLs

```
DELETE zstack/v1/vm-instances/{vmInstanceId}/scsi-lun/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vm-
instances/68b34252ae3a386e92b74ce3a2bd7e4a/scsi-
lun/4af9531a118a3b7aba404d794a4cfa51
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
vmInstanceId	String	url	The VM instance UUID.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "fc-lun-36b083fe000daf018000022905ba35d8f",
    "uuid": "a51554a318e333f1b96a7abe91674ede",
    "wwid": "36b083fe000daf018000022905ba35d8f",
    "vendor": "DELL",
    "model": "MD32xx",
    "wwn": "0x6f01faf000d5c3e7",
```



```

"serial": "6b083fe000daf018000015505abbe00a",
"type": "mpath",
"path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-11",
"size": 5.49755813888E12,
"scsiLunHostRefs": [
  {
    "id": 1.0,
    "scsiLunUuid": "a51554a318e333f1b96a7abe91674ede",
    "hostUuid": "5c5a4a7c480e3b5791e0915785968eb1",
    "createDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"scsiLunVmInstanceRefs": [],
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	ScsiLunInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root	0.6

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
wwid	String	The disk WWID.	3.1.0
vendor	String	The disk vendor.	3.1.0
model	String	The disk model.	3.1.0
wwn	String	The disk WWN.	3.1.0
serial	String	The disk serial No.	3.1.0
type	String	The disk type.	3.1.0
path	String	The disk path.	3.1.0
state	String	The disk state.	3.1.0
size	Long	The disk size.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
scsiLunHostRefs	List	See scsiLunHostRefs .	3.1.0
scsiLunVml instanceRefs	List	See scsiLunVmInstanceRefs .	3.1.0

#scsiLunHostRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
hostUuid	String	The host UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

#scsiLunVmInstanceRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
vmInstanceUuid	String	The VM instance UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
DetachScsiLunFromVmInstanceAction action = new DetachScsiLunFromVmInstanceAction();
action.uuid = "4af9531a118a3b7aba404d794a4cfa51";
action.vmInstanceUuid = "68b34252ae3a386e92b74ce3a2bd7e4a";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachScsiLunFromVmInstanceAction.Result res = action.call();
```

Python SDK

```
DetachScsiLunFromVmInstanceAction action = DetachScsiLunFromVmInstanceAction()
action.uuid = "4af9531a118a3b7aba404d794a4cfa51"
action.vmInstanceUuid = "68b34252ae3a386e92b74ce3a2bd7e4a"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachScsiLunFromVmInstanceAction.Result res = action.call()
```

5.2.7.4.6 CheckScsiLunClusterStatus**API Request**

URLs

```
PUT zstack/v1/storage-devices/scsi-lun/{uuid}/cluster/{clusterUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "checkScsiLunClusterStatus": {},
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"checkScsiLunClusterStatus":{}}'
http://localhost:8080/zstack/v1/storage-devices/
scsi-lun/abe6bf1e763739f88f97055c14246245/
cluster/5415c2beb8a93447a27f69c109cdfb23
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.1.0
clusterUuid	String	url	The cluster UUID.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response**Sample Response**

```
{
  "inventory": {
    "attachedHosts": [
      {
        "zoneUuid": "5899ac6fab7d3951acae1d43c4fd7f97",
        "name": "example",
        "uuid": "161616a23a4834cfbe3dd7000a75ef51",
        "clusterUuid": "b886a9367ff9362d8955443cc5065fab",
        "description": "example",
        "managementIp": "192.168.0.1",
        "hypervisorType": "KVM",
        "state": "Enabled",
        "status": "Connected",
        "totalCpuCapacity": 4.0,
        "availableCpuCapacity": 2.0,
        "totalMemoryCapacity": 4.0,
        "availableMemoryCapacity": 4.0
      }
    ]
  }
}
```

```

    }
  ],
  "unattachedHosts": [
    {
      "zoneUuid": "ee802d3432203cc99a9711b3d26e047d",
      "name": "example",
      "uuid": "0d28db87cedc3c729300bcc7f426f9b6",
      "clusterUuid": "5d5325e38b4331c28efe5367dc583110",
      "description": "example",
      "managementIp": "192.168.0.2",
      "hypervisorType": "KVM",
      "state": "Enabled",
      "status": "Connected",
      "totalCpuCapacity": 4.0,
      "availableCpuCapacity": 2.0,
      "totalMemoryCapacity": 4.0,
      "availableMemoryCapacity": 4.0
    }
  ],
  "isAllHostsAttached": false
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	ScsiLunClusterStatus Inventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
isAllHostsAttached	Boolean	Whether the SCSI LUN is connected to all the hosts that are attached to the cluster.	3.1.0
attachedHosts	List	See attachedHosts .	3.1.0
unattachedHosts	List	See unattachedHosts .	3.1.0

#attachedHosts

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	3.1.0
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
clusterUuid	String	The cluster UUID.	3.1.0
description	String	The detailed description of the resource.	3.1.0
managementIp	String		3.1.0
hypervisorType	String		3.1.0
state	String		3.1.0
status	String		3.1.0
totalCpuCapacity	Long		3.1.0
availableCpuCapacity	Long		3.1.0
totalMemoryCapacity	Long		3.1.0

Name	Type	Description	Starting Version
availableMemoryCapacity	Long		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

#unattachedHosts

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	3.1.0
name	String	The resource name.	3.1.0
uuid	String	The resource UUID.	3.1.0
clusterUuid	String	The cluster UUID.	3.1.0
description	String	The detailed description of the resource.	3.1.0
managementIp	String		3.1.0
hypervisorType	String		3.1.0
state	String		3.1.0
status	String		3.1.0
totalCpuCapacity	Long		3.1.0
availableCpuCapacity	Long		3.1.0
totalMemoryCapacity	Long		3.1.0
availableMemoryCapacity	Long		3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
CheckScsiLunClusterStatusAction action = new CheckScsiLunClusterStatusAction();
action.uuid = "abe6bf1e763739f88f97055c14246245";
action.clusterUuid = "5415c2beb8a93447a27f69c109cdfb23";
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckScsiLunClusterStatusAction.Result res = action.call();
```

Python SDK

```
CheckScsiLunClusterStatusAction action = CheckScsiLunClusterS
tatusAction()
action.uuid = "abe6bf1e763739f88f97055c14246245"
action.clusterUuid = "5415c2beb8a93447a27f69c109cdfb23"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CheckScsiLunClusterStatusAction.Result res = action.call()
```

5.2.7.4.7 GetScsiLunCandidatesForAttachingVm

API Request

URLs

```
GET zstack/v1/vm-instances/{vmInstanceUuid}/candidate-storage-devices
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
ccd1f4cb76e83c3b997fc4ed16ed529f/candidate-storage-devices?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID		3.1.0
systemTags	List	query	Optional. The system tags.		3.1.0
userTags	List	query	Optional. The user tags.		3.1.0

API Response

Sample Response

```
{
  "inventories": [
```



```

{
  "name": "fc-lun-36b083fe000daf018000022905ba35d8f",
  "uuid": "d4714249ba273a5c9d1c1cb3a1a16f24",
  "wwid": "36b083fe000daf018000022905ba35d8f",
  "vendor": "DELL",
  "model": "MD32xx",
  "wwn": "0x6f01faf000d5c3e7",
  "serial": "6b083fe000daf018000015505abbe00a",
  "type": "mpath",
  "path": "pci-0000:05:00.0-fc-0x2012b083fedaf018-lun-11",
  "size": 5.49755813888E12,
  "scsiLunHostRefs": [
    {
      "id": 1.0,
      "scsiLunUuid": "d4714249ba273a5c9d1c1cb3a1a16f24",
      "hostUuid": "c922c37f885e35aeb1ae87db3446fc7e",
      "createDate": "Nov 14, 2017 10:20:57 PM"
    }
  ],
  "scsiLunVmInstanceRefs": [],
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
]
}

```

Name	Type	Description	Starting Version
success	boolean		3.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0
error	ErrorCode	See error .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0

Name	Type	Description	Starting Version
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventories

Name	Type	Description	Starting Version
name	String	The resource UUID.	3.1.0
uuid	String	The resource UUID.	3.1.0
wwid	String	The disk WWID.	3.1.0
vendor	String	The disk vendor.	3.1.0
model	String	The disk model.	3.1.0
wwn	String	The disk WWN.	3.1.0
serial	String	The disk serial No.	3.1.0
type	String	The disk type.	3.1.0
path	String	The disk path.	3.1.0
state	String	The disk state.	3.1.0
size	Long	The disk size.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
scsiLunHostRefs	List	See scsiLunHostRefs .	3.1.0
scsiLunVml nstanceRefs	List	See scsiLunVmInstanceRefs .	3.1.0

#scsiLunHostRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
hostUuid	String	The host UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

#scsiLunVmInstanceRefs

Name	Type	Description	Starting Version
scsiLunUuid	String	The SCSI LUN UUID.	3.1.0
vmInstanceUuid	String	The VM instance UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root	3.1.0

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

SDK Sample

Java SDK

```
GetScsiLunCandidatesForAttachingVmAction action = new GetScsiLunCandidatesForAttachingVmAction();
action.vmInstanceUuid = "ccd1f4cb76e83c3b997fc4ed16ed529f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetScsiLunCandidatesForAttachingVmAction.Result res = action.call();
```

Python SDK

```
GetScsiLunCandidatesForAttachingVmAction action = GetScsiLunCandidatesForAttachingVmAction()
action.vmInstanceUuid = "ccd1f4cb76e83c3b997fc4ed16ed529f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetScsiLunCandidatesForAttachingVmAction.Result res = action.call()
```

5.2.7.5 NVMe Storage Operations

5.2.7.5.1 QueryNvmeLun

API Request

URLs

```
GET zstack/v1/storage-devices/nvme/luns
GET zstack/v1/storage-devices/nvme/luns/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/nvme/luns
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/nvme/luns/066996e131e03824a7ef6a22defed432
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryNvmeLun`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "nvmeTargetUuid": "f04819a9445c3d068c075e753d48fc3c",
      "nvmeLunHostRefs": [],
      "name": "nvme-lun-36b083fe000daf018000022905ba35d8f",
      "uuid": "138c10cda11c3b8e9c7d988350d5cf64",
      "wwid": "uuid.48daeab7-7f15-405e-8481-7152cb9b0aca",
      "wwn": "uuid.48daeab7-7f15-405e-8481-7152cb9b0aca",
      "serial": "3d87eca1686c1782",
      "type": "disk",
      "path": "nvme-uuid.48daeab7-7f15-405e-8481-7152cb9b0aca ",
      "size": 5497558138880
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.21
inventories	List	See inventories .	4.6.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.21
description	String	The brief description of the error.	4.6.21
details	String	The details about the error.	4.6.21

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	4.6.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.21

#inventories

Name	Type	Description	Starting Version
nvmeTargetUuid	String	The NVMe device UUID.	4.6.21
name	String	The resource name.	4.6.21
uuid	String	The resource uuid.	4.6.21
wwid	String	The unique tag of the resource.	4.6.21
vendor	String	The vendor供应商	4.6.21
model	String	The model	4.6.21
wwn	String		4.6.21
serial	String	The serial.	4.6.21
type	String	The type.	4.6.21
hctl	String		4.6.21
path	String	The path.	4.6.21
state	String	The state.	4.6.21
size	Long	The size.	4.6.21
multipathDeviceUuid	String	The UUID of the multipath device.	4.6.21
source	String	The disk source, NVME.	4.6.21
createDate	Timestamp	The creation date.	4.6.21

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.6.21
nvmeLunHostRefs	List	See nvmeLunHostRefs .	4.6.21

#nvmeLunHostRefs

Name	Type	Description	Starting Version
nvmeLunUuid	List	The UUID of the NVMe disk.	4.6.21
hostUuid	String	The host UUID.	4.6.21
path	String	The disk path.	4.6.21
hctl	String	The disk HCTL.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21

SDK Sample

Java SDK

```
QueryNvmeLunAction action = new QueryNvmeLunAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryNvmeLunAction.Result res = action.call();
```

Python SDK

```
QueryNvmeLunAction action = QueryNvmeLunAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryNvmeLunAction.Result res = action.call()
```

5.2.7.5.2 QueryNvmeTarget

API Request

URLs

```
GET zstack/v1/storage-devices/nvme/controllers
GET zstack/v1/storage-devices/nvme
```

```
GET zstack/v1/storage-devices/nvme/controllers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/nvme/
controllers
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/nvme
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/nvme/
controllers/de0f2549ed0130948f14b00916fbf9a0
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryNvmeTarget`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "40ab069909633d4293c62f44efb26db8",
      "state": "Enabled",
      "nvmeLuns": [
        {
          "nvmeTargetUuid": "40ab069909633d4293c62f44efb26db8",
          "nvmeLunHostRefs": [
            {
              "id": 1,
              "nvmeLunUuid": "5690b46050623763a0335e753c347fa1",
              "hostUuid": "d6f8a7ff0069304080b345c077c3aeb9",
              "createDate": "Nov 14, 2017 10:20:57 PM",
              "lastOpDate": "Nov 14, 2017 10:20:57 PM"
            }
          ],
          "name": "nvme-lun-36b083fe000daf018000022905ba35d8f",
          "uuid": "5690b46050623763a0335e753c347fa1",
          "wwid": "uuid.48daeab7-7f15-405e-8481-7152cb9b0aca",
          "wwn": "uuid.48daeab7-7f15-405e-8481-7152cb9b0aca",
          "serial": "3d87eca1686c1782",
          "type": "disk",
          "path": "nvme-uuid.48daeab7-7f15-405e-8481-7152cb9b0aca ",
          "size": 5497558138880
        }
      ]
    }
  ]
}
```



```

    }
  ],
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
]
}

```

Name	Type	Description	Starting Version
success	boolean		4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.21
inventories	List	See inventories .	4.6.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.21
description	String	The brief description of the error.	4.6.21
details	String	The details about the error.	4.6.21
elaboration	String	The reserved field. Default value: null.	4.6.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.21

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.21
name	String	The resource name.	4.6.21
nqn	String	The unique name for the NVMe.	4.6.21
state	String	The state.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21
nvmeLuns	List	See nvmeLuns .	4.6.21

#nvmeLuns

Name	Type	Description	Starting Version
nvmeTargetUuid	String	The NVMe device UUID.	4.6.21
name	String	The resource name.	4.6.21
uuid	String	The resource uuid.	4.6.21
wwid	String	The unique tag of the resource.	4.6.21
vendor	String	The vendor 供应商	4.6.21
model	String	The model	4.6.21
wwn	String		4.6.21
serial	String	The serial.	4.6.21
type	String	The type.	4.6.21
hctl	String		4.6.21
path	String	The path.	4.6.21
state	String	The state.	4.6.21
size	Long	The size.	4.6.21
multipathDeviceUuid	String	The UUID of the multipath device.	4.6.21
source	String	The disk source, NVME.	4.6.21

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21
nvmeLunHostRefs	List	See nvmeLunHostRefs .	4.6.21

#nvmeLunHostRefs

Name	Type	Description	Starting Version
nvmeLunUuid	List	The UUID of the NVMe disk.	4.6.21
hostUuid	String	The host UUID.	4.6.21
path	String	The disk path.	4.6.21
hctl	String	The disk HCTL.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21

SDK Sample

Java SDK

```
QueryNvmeTargetAction action = new QueryNvmeTargetAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryNvmeTargetAction.Result res = action.call();
```

Python SDK

```
QueryNvmeLunAction action = QueryNvmeLunAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryNvmeLunAction.Result res = action.call()
```

5.2.7.5.3 RefreshNvmeTarget

API Request

URLs

```
POST zstack/v1/storage-devices/nvme/controllers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "zoneUuid": "7a7b52cf91933070af3c8273f30ef458"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \-X POST -d
'{"params":{"zoneUuid":"7a7b52cf91933070af3c8273f30ef458"}}' \
http://localhost:8080/zstack/v1/storage-devices/nvme/controllers
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/nvme
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/storage-devices/nvme/
controllers/de0f2549ed0130948f14b00916fbf9a0
```

Required Parameters

Name	Type	Location	Description	Valid Values	Satrtting Version
zoneUuid	String	body(contained in the params structure)	The zone UUID.		4.6.21
nvmeLunUuids	List	body(contained in the params structure)	Optional. The NVMe disk UUID.		4.6.21
systemTags	List	body	Optional. The system tags.		4.6.21
userTags	List	body	Optional. The user tags.		4.6.21

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "88ed12f1c3d7329c9b3fd00a87ce999e",
      "state": "Enabled",
      "nvmeLuns": [
        {
          "nvmeTargetUuid": "88ed12f1c3d7329c9b3fd00a87ce999e",
          "nvmeLunHostRefs": [
            {
              "id": 1,
              "nvmeLunUuid": "3adbd21bfa483cb2bc48b91c1438c788",
              "hostUuid": "8c26dfd50d963292b8a51ddc0f9957f5",
              "createDate": "Nov 14, 2017 10:20:57 PM",
              "lastOpDate": "Nov 14, 2017 10:20:57 PM"
            }
          ],
          "name": "nvme-lun-36b083fe000daf018000022905ba35d8f",
          "uuid": "3adbd21bfa483cb2bc48b91c1438c788",
          "wwid": "uuid.48daeab7-7f15-405e-8481-7152cb9b0aca",
          "wwn": "uuid.48daeab7-7f15-405e-8481-7152cb9b0aca",
          "serial": "3d87eca1686c1782",
          "type": "disk",
          "path": "nvme-uuid.48daeab7-7f15-405e-8481-7152cb9b0aca ",
          "size": 5497558138880
        }
      ],
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.21
inventories	List	See inventories .	4.6.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.21
description	String	The brief description of the error.	4.6.21
details	String	The details about the error.	4.6.21
elaboration	String	The reserved field. Default value: null.	4.6.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.21

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.21

Name	Type	Description	Starting Version
name	String	The resource name.	4.6.21
nqn	String	The unique name for the NVMe.	4.6.21
state	String	The state.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21
nvmeLuns	List	See nvmeLuns .	4.6.21

#nvmeLuns

Name	Type	Description	Starting Version
nvmeTargetUuid	String	The NVMe device UUID.	4.6.21
name	String	The resource name.	4.6.21
uuid	String	The resource uuid.	4.6.21
wwid	String	The unique tag of the resource.	4.6.21
vendor	String	The vendor 供应商	4.6.21
model	String	The model	4.6.21
wwn	String		4.6.21
serial	String	The serial.	4.6.21
type	String	The type.	4.6.21
hctl	String		4.6.21
path	String	The path.	4.6.21
state	String	The state.	4.6.21
size	Long	The size.	4.6.21
multipathDeviceUuid	String	The UUID of the multipath device.	4.6.21
source	String	The disk source, NVME.	4.6.21
createDate	Timestamp	The creation date.	4.6.21

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.6.21
nvmeLunHostRefs	List	See nvmeLunHostRefs .	4.6.21

#nvmeLunHostRefs

Name	Type	Description	Starting Version
nvmeLunUuid	List	The UUID of the NVMe disk.	4.6.21
hostUuid	String	The host UUID.	4.6.21
path	String	The disk path.	4.6.21
hctl	String	The disk HCTL.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21

SDK Sample

Java SDK

```
QueryNvmeTargetAction action = new QueryNvmeTargetAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryNvmeTargetAction.Result res = action.call();
```

Python SDK

```
QueryNvmeTargetAction action = QueryNvmeTargetAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
QueryNvmeTargetAction.Result res = action.call()
```

5.2.8 Physical Network Operations

5.2.8.1 CreateHostNetworkServiceType

API Request

URLs

```
POST zstack/v1/hosts/service-types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "serviceType": "ManagementNetwork",
    "system": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"serviceType": "ManagementNetwork", "system": true}}' \
http://localhost:8080/zstack/v1/hosts/service-types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
serviceType	String	body (contained in the params structure)	The network type.		5.3.0

Name	Type	Location	Description	Optional Value	Starting Version
system	boolean	body (contained in the params structure)	Optional.		5.3.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		5.3.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		5.3.0
systemTags	List	body	Optional. The system tags.		5.3.0
userTags	List	body	Optional. The user tags.		5.3.0

API Response

Sample Response

```
{
  "inventory": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.0
inventory	HostNetworkLabelInventory	See inventory .	5.3.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.0
serviceType	String	The service type.	5.3.0
system	Boolean	The system status.	5.3.0
createDate	Timestamp	The creation date.	5.3.0
lastOpDate	Timestamp	The last operation date.	5.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.0
description	String	The brief description of the error.	5.3.0
details	String	The details about the error.	5.3.0
elaboration	String	The reserved field. Default value: null.	5.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.0

SDK Sample

Java SDK

```
CreateHostNetworkServiceTypeAction action = new CreateHostNetworkServiceTypeAction();
action.serviceType = "ManagementNetwork";
action.system = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreateHostNetworkServiceTypeAction.Result res = action.call();
```

Python SDK

```
CreateHostNetworkServiceTypeAction action = CreateHostNetworkServiceTypeAction()
action.serviceType = "ManagementNetwork"
action.system = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateHostNetworkServiceTypeAction.Result res = action.call()
```

5.2.8.2 UpdateHostNetworkServiceType

API Request

URLs

```
PUT zstack/v1/hosts/service-types/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateHostNetworkServiceType": {
    "serviceType": "ManagementNetwork",
    "system": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateHostNetworkServiceType":
{"serviceType":"ManagementNetwork","system":true}}' \
http://localhost:8080/zstack/v1/hosts/service-
types/63513aaff0a13c6fa9f9661acf9cd64b/actions
```

Request Parameters

名字	类型	位置	描述	可选值	起始版本
uuid	String	url	The resource UUID.		5.3.0
serviceType	String	body(contained in the updateHostNetworkServiceType structure)	The network type.		5.3.0
system	boolean	body(contained in the updateHostNetworkServiceType structure)	Optional.		5.3.0
systemTags	List	body	Optional. The system tags.		5.3.0
userTags	List	body	Optional. The user tags.		5.3.0

API Response

Sample Response

```
{
  "inventory": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.0
inventory	HostNetworkLabelInventory	See inventory .	5.3.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.0
serviceType	String	The service type.	5.3.0
system	Boolean	The system status.	5.3.0
createDate	Timestamp	The creation date.	5.3.0
lastOpDate	Timestamp	The last operation date.	5.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.0
description	String	The brief description of the error.	5.3.0
details	String	The details about the error.	5.3.0
elaboration	String	The reserved field. Default value: null.	5.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.0

SDK Sample

Java SDK

```
UpdateHostNetworkServiceTypeAction action = new UpdateHostNetworkServiceTypeAction();
action.uuid = "63513aaff0a13c6fa9f9661acf9cd64b";
action.serviceType = "ManagementNetwork";
action.system = true;
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateHostNetworkServiceTypeAction.Result res = action.call();
```

Python SDK

```
UpdateHostNetworkServiceTypeAction action = UpdateHostNetworkSer
viceTypeAction()
action.uuid = "63513aaff0a13c6fa9f9661acf9cd64b"
action.serviceType = "ManagementNetwork"
action.system = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateHostNetworkServiceTypeAction.Result res = action.call()
```

5.2.8.3 DeleteHostNetworkServiceType

API Request

URLs

```
DELETE zstack/v1/hosts/service-types/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/hosts/service-
types/21ce80c3a7783e11b78a343a50470abf
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.3.0
deleteMode	String	body	Optional. The deleting mode (Permissive /Enforcing, Permissive).		5.3.0
systemTags	List	body	Optional. The system tags.		5.3.0
userTags	List	body	Optional. The user tags.		5.3.0

API Response

The API returns an empty JSON structure {} upon success, and a JSON structure containing an error field in case of failure, for example:

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteHostNetworkServiceTypeAction action = new DeleteHostNetworkServiceTypeAction();
action.uuid = "21ce80c3a7783e11b78a343a50470abf";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteHostNetworkServiceTypeAction.Result res = action.call();
```

Python SDK

```
DeleteHostNetworkServiceTypeAction action = DeleteHostNetworkServiceTypeAction()
action.uuid = "21ce80c3a7783e11b78a343a50470abf"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteHostNetworkServiceTypeAction.Result res = action.call()
```

5.2.8.4 SetServiceTypeOnHostNetworkInterface

API Request

URLs

```
POST zstack/v1/hosts/nics/service-types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "interfaceUuids": [
      "2894f52c7d84366c85dd115b3bc193ca"
    ]
  },
  "systemTags": [],
}
```



```
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"interfaceUuids":
["2894f52c7d84366c85dd115b3bc193ca"]}}' \
http://localhost:8080/zstack/v1/hosts/nics/service-types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuids	List	body (contained in the params structure)	The physical NIC port UUID list.		4.7.11
vlanIds	List	body (contained in the params structure)	Optional. The VLAN interface ID list.		4.7.11
serviceTypes	List	body (contained in the params structure)	Optional. The network type.	• Management Network • TenantNetwork • StorageNetwork • BackupNetwork • MigrationNetwork	4.7.11
systemTags	List	body	Optional. The system tags.		4.7.11
userTags	List	body	Optional. The user tags.		4.7.11

API Response

Sample Response

```
{
  "inventory": [
    {
      "id": 0,
      "interfaceUuid": "8534263f624a3962b7603c99a3e44eb2",
      "vlanId": 10,
      "serviceType": "BackupNetwork"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.11
inventory	List	See inventory .	4.7.11
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.11

#inventory

Name	Type	Description	Starting Version
interfaceUuid	String	The physical NIC port UUID.	4.7.11
vlanId	Integer	The VLAN interface id.	4.7.11
createDate	Timestamp	The creation date.	4.7.11
lastOpDate	Timestamp	The last operation date.	4.7.11
serviceType	HostNetworkInterface ServiceType	See serviceType .	4.7.11

#serviceType

Name	Type	Description	Starting Version
ManagementNetwork	HostNetworkInterface ServiceType	The management network.	4.7.11

Name	Type	Description	Starting Version
TenantNetwork	HostNetworkInterface ServiceType	The business network.	4.7.11
StorageNetwork	HostNetworkInterface ServiceType	The storage network.	4.7.11
BackupNetwork	HostNetworkInterface ServiceType	The backup network.	4.7.11
MigrationNetwork	HostNetworkInterface ServiceType	The migration network.	4.7.11

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.11
description	String	The brief description of the error.	4.7.11
details	String	The details about the error.	4.7.11
elaboration	String	The reserved field. Default value: null.	4.7.11
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.11
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.11

SDK Sample

Java SDK

```
SetServiceTypeOnHostNetworkInterfaceAction action = new SetServiceTypeOnHostNetworkInterfaceAction();
```

```
action.interfaceUids = asList("2894f52c7d84366c85dd115b3bc193ca");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetServiceTypeOnHostNetworkInterfaceAction.Result res = action.call();
```

Python SDK

```
SetServiceTypeOnHostNetworkInterfaceAction action = SetService
TypeOnHostNetworkInterfaceAction()
action.interfaceUids = [2894f52c7d84366c85dd115b3bc193ca]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetServiceTypeOnHostNetworkInterfaceAction.Result res = action.call()
```

5.2.8.5 SetServiceTypeOnHostNetworkBonding

API Request

URLs

```
POST zstack/v1/hosts/bondings/service-types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "bondingUids": [
      "e96881d20cde3a9ab337cdf0ab4e8b08"
    ],
    "serviceTypes": [
      "TenantNetwork"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"bondingUids":
["e96881d20cde3a9ab337cdf0ab4e8b08"],"serviceTypes":
["TenantNetwork"]}}' \
```

`http://localhost:8080/zstack/v1/hosts/bondings/service-types`

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
bondingUuids	List	body (contained in the params structure)	The bond UUID list.		4.7.11
vlanIds	List	body (contained in the params structure)	Optional. The VLAN interface id list.		4.7.11
serviceTypes	List	body (contained in the params structure)	Optional. The network type.	• ManagementNetwork • TenantNetwork • StorageNetwork • BackupNetwork • MigrationNetwork	4.7.11
systemTags	List	body	Optional. The system tags.		4.7.11
userTags	List	body	Optional. The user tags.		4.7.11

API Response

Sample Response

```
{
  "inventory": [
    {
      "id": 0,
      "bondingUuid": "d1fd53a607c936859414f6222175c820",
      "vlanId": 10,
      "serviceType": "BackupNetwork"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.7.11
inventory	List	See inventory .	4.7.11
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.11

#inventory

Name	Type	Description	Starting Version
bondingUuid	String	The bond UUID.	4.7.11
vlanId	Integer	The VLAN interface ID.	4.7.11
createDate	Timestamp	The creation date.	4.7.11
lastOpDate	Timestamp	The last operation date.	4.7.11
serviceType	HostNetworkInterface ServiceType	See serviceType .	4.7.11

#serviceType

Name	Type	Description	Starting Version
ManagementNetwork	HostNetworkInterface ServiceType	The management network.	4.7.11
TenantNetwork	HostNetworkInterface ServiceType	The business network.	4.7.11
StorageNetwork	HostNetworkInterface ServiceType	The storage network.	4.7.11
BackupNetwork	HostNetworkInterface ServiceType	The backup network.	4.7.11
MigrationNetwork	HostNetworkInterface ServiceType	The migration network.	4.7.11

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.11
description	String	The brief description of the error.	4.7.11
details	String	The details about the error.	4.7.11
elaboration	String	The reserved field. Default value: null.	4.7.11
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.11
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.11

SDK Sample

Java SDK

```
SetServiceTypeOnHostNetworkBondingAction action = new SetServiceTypeOnHostNetworkBondingAction();
action.bondingUuids = asList("e96881d20cde3a9ab337cdf0ab4e8b08");
action.serviceTypes = asList("TenantNetwork");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetServiceTypeOnHostNetworkBondingAction.Result res = action.call();
```

Python SDK

```
SetServiceTypeOnHostNetworkBondingAction action = SetServiceTypeOnHostNetworkBondingAction()
action.bondingUuids = [e96881d20cde3a9ab337cdf0ab4e8b08]
action.serviceTypes = [TenantNetwork]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetServiceTypeOnHostNetworkBondingAction.Result res = action.call()
```

5.2.8.6 GetCandidateInterfaceVlanIds

API Request

URLs

```
GET zstack/v1/host/network-interface-vlan-ids
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl示例

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/host/network-interface-vlan-ids?interfaceUuids=d25e83af6ccf3d9ca8baa1702861a0c8&limit=1000&start=0
```

参数列表

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuids	List	query	The NIC port UUIDs		4.7.11
limit	Integer	query			4.7.11
start	Integer	query			4.7.11
systemTags	List	query	Optional. The system tags.		4.7.11
userTags	List	query	Optional. The user tags.		4.7.11

API Response

Sample Response

```
{
  "vlanIds": [
    1010,
    1011,
    10,
    11,
    2000,
    1101,
    1110,
    1108,
```



```

        1107,
        1109,
        1106,
        1103,
        1102,
        1105,
        1104,
        0
    ],
    "success": true
}

```

Name	Type	Description	Starting Version
vlanIds	List	The Vlan interface ID list.	4.7.11
success	boolean		4.7.11
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.7.11

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.11
description	String	The brief description of the error.	4.7.11
details	String	The details about the error.	4.7.11
elaboration	String	The reserved field. Default value: null.	4.7.11
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.11
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.7.11

Name	Type	Description	Starting Version
		exists, this parameter is null.	

SDK Sample

Java SDK

```
GetCandidateInterfaceVlanIdsAction action = new GetCandidateInterfaceVlanIdsAction();
action.interfaceUuids = asList("d25e83af6ccf3d9ca8baa1702861a0c8");
action.limit = 1000;
action.start = 0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateInterfaceVlanIdsAction.Result res = action.call();
```

Python SDK

```
GetCandidateInterfaceVlanIdsAction action = GetCandidateInterfaceVlanIdsAction()
action.interfaceUuids = [d25e83af6ccf3d9ca8baa1702861a0c8]
action.limit = 1000
action.start = 0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetCandidateInterfaceVlanIdsAction.Result res = action.call()
```

5.2.8.7 GetInterfaceServiceTypeStatistic

API Request

URLs

```
GET zstack/v1/hosts/hosts-network-interfaces/service-type-statistic
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hosts/hosts-network-interfaces/service-type-statistic? \
interfaceUuid=d8797841479d3951bcb698164b56bd9e&interfaceType=All&sortBy=CreateDate
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuid	String	query	Optional. The NIC port UUID.		4.7.11
vlanId	Integer	query	Optional. The VLAN interface ID.		4.7.11
interfaceType	String	query	Optional. The NIC port type.	• All • Interface • Bonding	4.7.11
serviceType	List	query	Optional. The network type.	• All • Management Network • TenantNetwork • StorageNetwork • MigrationNetwork • BackupNetwork	4.7.11
zoneUuid	String	query	Optional. The zone UUID.		4.7.11
clusterUuid	String	query	Optional. The cluster UUID.		4.7.11
hostUuid	String	query	Optional. The host UUID.		4.7.11
sortBy	String	query	Optional. The sort method.	• InterfaceName • VlanId • HostIp • HostName • ClusterName • CreateDate	4.7.11

Name	Type	Location	Description	Optional Value	Starting Version
sortDirection	String	query	Optional. The sort direction.	- asc - desc	4.7.11
start	Integer	query	Optional. The location where the statistics starts.		4.7.11
limit	Integer	query	Optional. The count of the statistics.		4.7.11
replyWithCount	boolean	query	Optional. Whether to return both the statistics result and count.		4.7.11
systemTags	List	query	Optional. The system tags.		4.7.11
userTags	List	query	Optional. The user tags.		4.7.11

API Response

Sample Response

```
{
  "serviceTypeStatistics": [
    {
      "interfaceUuid": "474f9d7d7a1d3b46b8f17363dca7ebef",
      "serviceTypes": [
        "ManagementNetwork"
      ]
    }
  ],
  "total": 1
}
```

Name	Type	Description	Starting Version
total	Long	The total count of the statistics.	4.7.11

Name	Type	Description	Starting Version
success	boolean	Whether the API succeeds.	4.7.11
serviceTypeStatistics	List	See serviceTypeStatistics .	4.7.11
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.7.11

#serviceTypeStatistics

名字	类型	描述	起始版本
interfaceUuid	String	The network interface UUID.	4.7.11
interfaceName	String	The network interface name.	4.7.11
vlanId	Integer	The vlan interface ID.	4.7.11
serviceTypes	List	The network type list.	4.7.11
hostUuid	String	The host UUID.	4.7.11
hostName	String	The host name.	4.7.11
hostIp	String	The host IP.	4.7.11
clusterUuid	String	The cluster UUID.	4.7.11
clusterName	String	The cluster name.	4.7.11
zoneUuid	String	The zone UUID.	4.7.11
createDate	Timestamp	The date of creation.	4.7.11

#error

名字	类型	描述	起始版本
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6

名字	类型	描述	起始版本
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetInterfaceServiceTypeStatisticAction action = new GetInterfaceServiceTypeStatisticAction();
action.interfaceUuid = "d8797841479d3951bcb698164b56bd9e";
action.interfaceType = "All";
action.sortBy = "CreateDate";
action.sortDirection = "asc";
action.start = 0;
action.limit = 20;
action.replyWithCount = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetInterfaceServiceTypeStatisticAction.Result res = action.call();
```

Python SDK

```
GetInterfaceServiceTypeStatisticAction action = GetInterfaceServiceTypeStatisticAction()
action.interfaceUuid = "d8797841479d3951bcb698164b56bd9e"
action.interfaceType = "All"
action.sortBy = "CreateDate"
action.sortDirection = "asc"
action.start = 0
action.limit = 20
action.replyWithCount = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetInterfaceServiceTypeStatisticAction.Result res = action.call()
```

5.2.8.8 ChangeHostNetworkInterfaceLldpMode

API Request

URLs

```
PUT zstack/v1/hostNetworkInterface/lldp/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeHostNetworkInterfaceLldpMode": {
    "interfaceUuids": [
      "f37102496ac2357aaa214622322adb65"
    ],
    "mode": "rx_only"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeHostNetworkInterfaceLldpMode":{"interfaceUuids":
["f37102496ac2357aaa214622322adb65"],"mode":"rx_only"}}' \
http://localhost:8080/zstack/v1/hostNetworkInterface/lldp/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuid	List	body (contained in the changeHost NetworkInt erfaceLldp	The physical NIC port UUID		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		Mode structure)			
mode	String	body (contained in the changeHostNetworkInterfaceLdpMode structure)	Optional. The lldp mode.	• rx_only • tx_only • rx_and_tx • disable	5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "interfaceUuid": "1cae08c11e8530a8bf892df7ef709249",
      "mode": "rx_only"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
inventory	List	See inventrois .	5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
interfaceUuid	String	The physical NIC port UUID.	5.0.0
mode	String	The LLDP mode.	5.0.0
createDate	Timestamp	The creation time.	5.0.0
lastOpDate	Timestamp	The last operation time.	5.0.0
lldp	HostNetworkInterface LldpReflInventory	See lldp	5.0.0

#lldp

Name	Type	Description	Starting Version
lldpUuid	String	The LLDP UUID.	5.0.0
chassisId	String	The chassis ID.	5.0.0
timeToLive	Integer	The time to live.	5.0.0
managementAddress	String	Management address.	5.0.0
systemName	String	The system name.	5.0.0
systemDescription	String	The system description.	5.0.0
systemCapabilities	String	The system capabilities.	5.0.0
portId	String	The port ID.	5.0.0
portDescription	String	The port description.	5.0.0
vlanId	Integer	The VLAN ID.	5.0.0
aggregationPortId	Long	The aggregation port ID.	5.0.0
mtu	Integer	The maximum transmission unit.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

SDK Sample

Java SDK

```
ChangeHostNetworkInterfaceLldpModeAction action = new ChangeHostNetworkInterfaceLldpModeAction();
action.interfaceUuids = asList("f37102496ac2357aaa214622322adb65");
action.mode = "rx_only";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeHostNetworkInterfaceLldpModeAction.Result res = action.call();
```

Python SDK

```
ChangeHostNetworkInterfaceLldpModeAction action = ChangeHostNetworkInterfaceLldpModeAction()
action.interfaceUuids = [f37102496ac2357aaa214622322adb65]
action.mode = "rx_only"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeHostNetworkInterfaceLldpModeAction.Result res = action.call()
```

5.2.8.9 GetHostNetworkInterfaceLldp

API Request

URLs

```
GET zstack/v1/hostNetworkInterface/lddp/{interfaceUuid}/info
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hostNetworkInterface/lddp/
e1b5f128aa183da6a6b719f136fdc5d2/info
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
interfaceUuid	String	url	The physical NIC port UUID		5.0.0
systemTags	List	query	Optional. The system tags.		5.0.0
userTags	List	query	Optional. The user tags.		5.0.0

API Response

Sample Response

```
{
  "lldp": {
    "lldpUuid": "6b7c1267888a38779eac7694315855f0",
    "chassisId": "mac 00:1e:08:1d:05:ba",
    "timeToLive": 120,
    "managementAddress": "172.25.2.4",
    "systemName": "BM-MN-3",
    "systemDescription": "CentecOS software, E530, Version 7.4.7
Copyright (C) 2004-2021 Centec Networks Inc. All Rights Reserved.",
    "systemCapabilities": "Bridge, on Router, on",
    "portId": "ifname eth-0-5",
    "portDescription": "eth-0-4",
    "vlanId": 3999,
```

```

    "aggregationPortId": 4294965248,
    "mtu": 9600
  }
}

```

Name	Type	Description	Starting Version
success	boolean		5.0.0
lldp	HostNetworkInterface LldpReflInventory	See lldp .	5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0

#lldp

Name	Type	Description	Starting Version
lldpUuid	String	The LLDP UUID.	5.0.0
chassisId	String	The chassis ID.	5.0.0
timeToLive	Integer	The retention time of LLDP messages on the endpoint.	5.0.0
managementAddress	String	The management address.	5.0.0
systemName	String	The system name.	5.0.0
systemDescription	String	The system description.	5.0.0
systemCapabilities	String	The system capabilities.	5.0.0
portId	String	The port ID.	5.0.0
portDescription	String	The port description.	5.0.0
vlanId	Integer	The VLAN ID.	5.0.0
aggregationPortId	Long	The aggregation port ID.	5.0.0
mtu	Integer	The maximum transmission unit.	5.0.0
createDate	Timestamp	The creation date.	5.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

SDK Sample

Java SDK

```
GetHostNetworkInterfaceLldpAction action = new GetHostNetworkInterfaceLldpAction();
action.interfaceUuid = "e1b5f128aa183da6a6b719f136fdc5d2";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetHostNetworkInterfaceLldpAction.Result res = action.call();
```

Python SDK

```
GetHostNetworkInterfaceLldpAction action = GetHostNetworkInterfaceLldpAction()
action.interfaceUuid = "e1b5f128aa183da6a6b719f136fdc5d2"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetHostNetworkInterfaceLldpAction.Result res = action.call()
```

5.2.8.10 QueryHostNetworkInterfaceLldp

API Request

URLs

```
GET zstack/v1/hostNetworkInterface/lddp/all
```

```
GET zstack/v1/hostNetworkInterface/lddp/{interfaceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hostNetworkInterface/lddp/all
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hostNetworkInterface/lddp/
{interfaceUuid}
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryHostNetworkInterfaceLldp**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "interfaceUuid": "d90dd5538ca2343099ea96cb89857aca",
      "mode": "rx_only"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
inventory	List	See inventories .	5.0.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
interfaceUuid	String	The physical NIC port UUID.	5.0.0
mode	String	The lldp mode.	5.0.0
createDate	Timestamp	The creation time.	5.0.0
lastOpDate	Timestamp	The last operation time.	5.0.0
lldp	HostNetworkInterface LldpRefInventory	See lldp	5.0.0

#lldp

Name	Type	Description	Starting Version
lldpUuid	String	The LLDP UUID.	5.0.0
chassisId	String	The chassis ID.	5.0.0
timeToLive	Integer	The time to live.	5.0.0
managementAddress	String	Management address.	5.0.0
systemName	String	The system name.	5.0.0
systemDescription	String	The system description.	5.0.0
systemCapabilities	String	The system capabilities.	5.0.0
portId	String	The port ID.	5.0.0
portDescription	String	The port description.	5.0.0
vlanId	Integer	The VLAN ID.	5.0.0

Name	Type	Description	Starting Version
aggregationPortId	Long	The aggregation port ID.	5.0.0
mtu	Integer	The maximum transmission unit.	5.0.0
createDate	Timestamp	The create date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

SDK Sample

Java SDK

```
QueryHostNetworkInterfaceLldpAction action = new QueryHostNetworkInterfaceLldpAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```



```
QueryHostNetworkInterfaceLldpAction.Result res = action.call();
```

Python SDK

```
QueryHostNetworkInterfaceLldpAction action = QueryHostNetworkInterfaceLldpAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryHostNetworkInterfaceLldpAction.Result res = action.call()
```

5.3 Network Resource

5.3.1 Hardware SDN Controller Operations

5.3.1.1 AddSdnController

API Request

URLs

```
POST zstack/v1/sdn-controllers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vendorType": "vendor",
    "name": "sdn-1",
    "description": "sdn controller from vendor",
    "ip": "192.168.1.1",
    "userName": "admin",
    "password": "password"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vendorType":"vendor","name":"sdn-1","description":"sdn controller
from
```

```
vendor", "ip": "192.168.1.1", "userName": "admin", "password": "password"}}
```

http://localhost:8080/zstack/v1/sdn-controllers

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vendorType	String	body (contained in the params structure)			3.7.0
name	String	body (contained in the params structure)	The resource name.		3.7.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.7.0
ip	String	body (contained in the params structure)			3.7.0
userName	String	body (contained in the params structure)	Optional. The user name.		5.3.20
password	String	body (contained in the params structure)	Optional. The password.		5.3.20
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.7.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

**Note:**

- When you add an SDN controller in ZStack Cloud, you can create an H3C SDN controller by adding the **H3C_VDS_UUID** option to **SystemTags**. The SystemTag is passed by using the **vdsUuid** parameter.
 - Format of the **H3C_VDS_UUID** option: `vdsUuid::{%s}`
 - Example: `vdsUuid::1234-5678`
 - Associated resource: `SdnControllerV0.class`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2f7e443a152833efb0f4b7d196a35ce0",
    "vendorType": "H3C VCFC",
    "name": "sdn-1",
    "description": "sdn controller from vendor",
    "ip": "192.168.1.1",
    "username": "admin",
    "password": "password"
  }
}
```

Name	Type	Description	Starting Version
success	Boolean		5.3.20
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	SdnControllerInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vendorType	String		3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
ip	String		3.7.0
username	String		3.7.0
password	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.7.0
status	SdnControllerStatus	See status .	5.3.20
vniRanges	List	See vniRanges .	3.7.0
vxlans	List	See vxlans .	3.7.0
hostRefs	List	See hostRefs .	5.3.20

#status

Name	Type	Description	Starting Version
Connecting	SdnControllerStatus	Connecting.	5.3.20
Connected	SdnControllerStatus	Connected.	5.3.20
Disconnected	SdnControllerStatus	Disconnected.	5.3.20

#vniRanges

Name	Type	Description	Starting Version
startVni	Integer		3.7.0
endVni	Integer		3.7.0

#vxlans

Name	Type	Description	Starting Version
sdnControllerUuid	String		3.7.0
attachedCidrs	Map		3.7.0
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
zoneUuid	String	The zone UUID.	3.7.0
physicalInterface	String		3.7.0
type	String		3.7.0
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20

Name	Type	Description	Starting Version
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
attachedClusterUuids	List		3.7.0
attachedVtepRefs	List	See attachedVtepRefs .	3.7.0
remoteVteps	List	See remoteVteps	5.3.20
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs .	3.7.0
attachedVniRanges	List	See attachedVniRanges .	3.7.0

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
hostUuid	String	The host UUID.	3.7.0
vteplp	String	The VXLAN tunnel endpoint (VTEP) IP.	5.3.20
port	Integer	The port number.	5.3.20
type	String	The type.	5.3.20
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
poolUuid	String		3.7.0

#remoteVteps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
clusterUuid	String	The cluster UUID	5.3.20

Name	Type	Description	Starting Version
vteplp	String	The VXLAN tunnel endpoint (VTEP) IP.	5.3.20
port	Integer	The port number.	5.3.20
type	String	The type.	5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID.	5.3.20

#attachedVxlanNetworkRefs

Name	Type	Description	Starting Version
vni	Integer	The VNI number.	5.3.20
poolUuid	String	The VXLAN pool UUID.	5.3.20
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
zoneUuid	String	The zone UUID.	3.7.0
physicalInterface	String		3.7.0
type	String		3.7.0
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
attachedClusterUuids	List	The attached cluster UUID.	5.3.20

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
startVni	Integer	The start VNI.	5.3.20
endVni	Integer	The end VNI.	5.3.20
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
l2NetworkUuid	String	The L2 network UUID.	3.7.0

#hostRefs

Name	Type	Description	Starting Version
sdnControllerUuid	String	The SDN controller UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vSwitchType	String	The virtual switch type.	5.3.20
vteplp	String	The VXLAN tunnel endpoint (VTEP) IP.	5.3.20
nicPciAddresses	String	The NIC and PCI address mapping.	5.3.20
nicDrivers	String	The NIC and driver type mapping.	5.3.20
netmask	String	The host VTEP IP netmask.	5.3.20
bondMode	String	The NIC bond mode.	5.3.20
lacpMode	String	The NIC LACP mode.	5.3.20

SDK Sample

Java SDK

```
AddSdnControllerAction action = new AddSdnControllerAction();
```



```

action.vendorType = "vendor";
action.name = "sdn-1";
action.description = "sdn controller from vendor";
action.ip = "192.168.1.1";
action.userName = "admin";
action.password = "password";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddSdnControllerAction.Result res = action.call();

```

Python SDK

```

AddSdnControllerAction action = AddSdnControllerAction()
action.vendorType = "vendor"
action.name = "sdn-1"
action.description = "sdn controller from vendor"
action.ip = "192.168.1.1"
action.userName = "admin"
action.password = "password"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddSdnControllerAction.Result res = action.call()

```

5.3.1.2 RemoveSdnController

API Request

URLs

```
DELETE zstack/v1/sdn-controllers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/sdn-controllers/237901c5097b38c480315569a1ac7567?deleteMode=Permissive

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
deleteMode	String	body	Optional. The delete mode.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		3.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveSdnControllerAction action = new RemoveSdnControllerAction();
action.uuid = "237901c5097b38c480315569a1ac7567";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveSdnControllerAction.Result res = action.call();
```

Python SDK

```
RemoveSdnControllerAction action = RemoveSdnControllerAction()
action.uuid = "237901c5097b38c480315569a1ac7567"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveSdnControllerAction.Result res = action.call()
```

5.3.1.3 QuerySdnController

API Request

URLs

```
GET zstack/v1/sdn-controllers
```

```
GET zstack/v1/sdn-controllers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sdn-controllers?
q=uuid=5e897e7e3a663786b873a3e020dbfc0a
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sdn-
controllers/37c3e4f7602930c5888107528521ac90
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySdnController**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "b4134eb269a632eda5df826686733c5e",
      "name": "test-sdn",
      "description": "sdn for test",
      "ip": "192.168.1.1",
      "username": "admin",
      "password": "password"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
success	Boolean		5.3.20
inventories	List	See inventories .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vendorType	String		3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
ip	String		3.7.0
username	String		3.7.0
password	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

Name	Type	Description	Starting Version
status	SdnControllerStatus	See status .	5.3.20
vniRanges	List	See vniRanges .	3.7.0
vxlanPools	List	See vxlanPools .	3.7.0
hostRefs	List	See hostRefs .	5.3.20

#status

Name	Type	Description	Starting Version
Connecting	SdnControllerStatus	Connecting	5.3.20
Connected	SdnControllerStatus	Connected	5.3.20
Disconnected	SdnControllerStatus	Disconnected	5.3.20

#vniRanges

Name	Type	Description	Starting Version
startVni	Integer		3.7.0
endVni	Integer		3.7.0

#vxlanPools

Name	Type	Description	Starting Version
sdnControllerUuid	String		3.7.0
attachedCidrs	Map		3.7.0
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
zoneUuid	String	The zone UUID.	3.7.0
physicalInterface	String		3.7.0
type	String		3.7.0
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20

Name	Type	Description	Starting Version
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
attachedClusterUuids	List		3.7.0
attachedVtepRefs	List	See attachedVtepRefs .	3.7.0
remoteVteps	List	See remoteVteps	5.3.20
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs .	3.7.0
attachedVniRanges	List	See attachedVniRanges .	3.7.0

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
hostUuid	String	The host UUID.	3.7.0
vteplp	String	The VXLAN tunnel endpoint (VTEP) IP.	5.3.20
port	Integer	The port number.	5.3.20
type	String	The type.	5.3.20
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
poolUuid	String		3.7.0

#remoteVteps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
clusterUuid	String	The cluster UUID	5.3.20
vteplp	String	The VXLAN tunnel endpoint (VTEP) IP.	5.3.20

Name	Type	Description	Starting Version
port	Integer	The port number.	5.3.20
type	String	The type.	5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID.	5.3.20

#attachedVxlanNetworkRefs

Name	Type	Description	Starting Version
vni	Integer	The VNI number.	5.3.20
poolUuid	String	The VXLAN pool UUID.	5.3.20
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
zoneUuid	String	The zone UUID.	3.7.0
physicalInterface	String		3.7.0
type	String		3.7.0
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
attachedClusterUuids	List	The attached cluster UUID.	5.3.20

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
startVni	Integer	The start VNI.	5.3.20
endVni	Integer	The end VNI.	5.3.20
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
l2NetworkUuid	String	The L2 network UUID.	3.7.0

#hostRefs

Name	Type	Description	Starting Version
sdnControllerUuid	String	The SDN controller UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vSwitchType	String	The virtual switch type.	5.3.20
vtepIp	String	The VTEP IP.	5.3.20
nicPciAddresses	String	The nic PCI address.	5.3.20
nicDrivers	String	The nic drivers.	5.3.20
netmask	String	The VTEP IP netmask.	5.3.20
bondMode	String	The bond mode.	5.3.20
lacpMode	String	The LACP mode.	5.3.20

SDK Sample

Java SDK

```
QuerySdnControllerAction action = new QuerySdnControllerAction();
action.conditions = asList("uuid=e9f330402ed03b32a865ac4f19890589");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySdnControllerAction.Result res = action.call();
```

Python SDK

```
QuerySdnControllerAction action = QuerySdnControllerAction()
```



```
action.conditions = ["uuid=d6a1f2d694273d31bfd23736ab530e44"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySdnControllerAction.Result res = action.call()
```

5.3.1.4 UpdateSdnController

API Request

URLs

```
PUT zstack/v1/sdn-controllers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSdnController": {
    "name": "Test-Net",
    "description": "Test"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSdnController":{"name":"Test-Net","description":"Test"}}' http://localhost:8080/zstack/v1/sdn-controllers/4a39301758b13cda968bdcd866452d14/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
name	String	body (contained in the	Optional. The resource name.		3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
		updateSdnController structure)			
description	String	body (contained in the updateSdnController structure)	Optional. The detailed description of the resource.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "722428da8bac30d2b75daa2f6cd34e9d",
    "vendorType": "H3C VCFC",
    "name": "sdn-1",
    "description": "sdn controller from vendor",
    "ip": "192.168.1.1",
    "username": "admin",
    "password": "password"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	SdnControllerInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vendorType	String		3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
ip	String		3.7.0
username	String		3.7.0
password	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

Name	Type	Description	Starting Version
vniRanges	List	See vniRanges .	3.7.0
vxlanPools	List	See vxlanPools .	3.7.0

#vniRanges

Name	Type	Description	Starting Version
startVni	Integer		3.7.0
endVni	Integer		3.7.0

#vxlanPools

Name	Type	Description	Starting Version
sdnControllerUuid	String		3.7.0
attachedCidrs	Map		3.7.0
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
zoneUuid	String	The zone UUID.	3.7.0
physicalInterface	String		3.7.0
type	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
attachedClusterUuids	List		3.7.0
attachedVtepRefs	List	See attachedVtepRefs .	3.7.0
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs .	3.7.0
attachedVniRanges	List	See attachedVniRanges .	3.7.0

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
hostUuid	String	The host UUID.	3.7.0
vteplp	String		3.7.0
port	Integer		3.7.0
type	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
poolUuid	String		3.7.0

#attachedVxlanNetworkRefs

Name	Type	Description	Starting Version
vni	Integer		3.7.0
poolUuid	String		3.7.0
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
zoneUuid	String	The zone UUID.	3.7.0
physicalInterface	String		3.7.0
type	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
attachedClusterUuids	List		3.7.0

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	3.7.0
startVni	Integer		3.7.0
endVni	Integer		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
l2NetworkUuid	String	The L2 network UUID.	3.7.0

SDK Sample

Java SDK

```
UpdateSdnControllerAction action = new UpdateSdnControllerAction();
action.uuid = "4a39301758b13cda968bdcd866452d14";
action.name = "Test-Net";
action.description = "Test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSdnControllerAction.Result res = action.call();
```

Python SDK

```
UpdateSdnControllerAction action = UpdateSdnControllerAction()
action.uuid = "4a39301758b13cda968bdcd866452d14"
action.name = "Test-Net"
action.description = "Test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSdnControllerAction.Result res = action.call()
```

5.3.1.5 ReconnectSdnController

API Request

URLs

```
PUT zstack/v1/sdn-controllers/{sdnControllerUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectSdnController": {},
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectSdnController":{}}' http://
localhost:8080/zstack/v1/sdn-
controllers/911e4bc69d453bf89aae865ea6878263/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sdnControllerUuid	String	url			5.3.20
systemTags	List	body	Optional. The system tags.		5.3.20
userTags	List	body	Optional. The user tags.		5.3.20

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "65eede773d4a340681558318aabdc6a5",
    "vendorType": "H3C VCFC",
    "name": "sdn-1",
    "description": "sdn controller from vendor",
    "ip": "192.168.1.1",
    "username": "admin",
    "password": "password"
  }
}
```

Name	Type	Description	Starting Version
success	Boolean		5.3.20
inventory	SdnControllerInventory	See inventory .	5.3.20

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.20

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
vendorType	String		5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
ip	String		5.3.20
username	String		5.3.20
password	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
status	SdnControllerStatus	See status .	5.3.20
vniRanges	List	See vniRanges .	5.3.20
vxlanPools	List	See vxlanPools .	5.3.20
hostRefs	List	See hostRefs .	5.3.20

#status

Name	Type	Description	Starting Version
Connecting	SdnControllerStatus	Connecting.	5.3.20
Connected	SdnControllerStatus	Connected.	5.3.20
Disconnected	SdnControllerStatus	Disconnected.	5.3.20

#vniRanges

Name	Type	Description	Start Version
startVni	Integer		5.3.20
endVni	Integer		5.3.20

#vxlanPools

Name	Type	Description	Start Version
sdnControllerUuid	String		5.3.20
attachedCidrs	Map		5.3.20
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
physicalInterface	String		5.3.20
type	String		5.3.20
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
attachedClusterUuids	List		5.3.20
attachedVtepRefs	List	See attachedVtepRefs .	5.3.20
remoteVteps	List	See remoteVteps .	5.3.20
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs .	5.3.20
attachedVniRanges	List	See attachedVniRanges .	5.3.20

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vteplp	String	The VXLAN tunnel endpoint (VTEP) IP.	5.3.20
port	Integer	The port number.	5.3.20
type	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20

#remoteVteps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
clusterUuid	String	The cluster UUID.	5.3.20
vteplp	String	The VXLAN tunnel endpoint (VTEP) IP.	5.3.20
port	Integer	The port number.	5.3.20
type	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20

#attachedVxlanNetworkRefs

名字	类型	描述	起始版本
vni	Integer	The VNI number.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20
uuid	String	The resource UUID.	5.3.20

名字	类型	描述	起始版本
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
physicalInterface	String	The physical interface.	5.3.20
type	String	The type of L2 network.	5.3.20
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
attachedClusterUuids	List	The UUID list of attached cluster.	5.3.20

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
startVni	Integer	The start VNI.	5.3.20
endVni	Integer	The end VNI.	5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
l2NetworkUuid	String	The L2 network UUID.	5.3.20

#hostRefs

Name	Type	Description	Starting Version
sdnControllerUuid	String	The SDN controller UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vSwitchType	String	The virtual switch type.	5.3.20
vteplp	String	The VXLAN tunnel endpoint (VTEP) IP.	5.3.20
nicPciAddresses	String	The NIC PCI address mapping.	5.3.20
nicDrivers	String	The NIC driver mapping.	5.3.20
netmask	String	The VTEP IP netmask	5.3.20
bondMode	String	The NIC bond mode.	5.3.20
lacpMode	String	The NIC LACP mode.	5.3.20

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.20
description	String	The brief description of the error.	5.3.20
details	String	The details about the error.	5.3.20
elaboration	String	The reserved field. Default value: null.	5.3.20
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.20
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	5.3.20

Name	Type	Description	Starting Version
		exists, this parameter is null.	

SDK Sample

Java SDK

```
ReconnectSdnControllerAction action = new ReconnectSdnControllerAction();
action.sdnControllerUuid = "911e4bc69d453bf89aae865ea6878263";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ReconnectSdnControllerAction.Result res = action.call();
```

Python SDK

```
ReconnectSdnControllerAction action = ReconnectSdnControllerAction()
action.sdnControllerUuid = "911e4bc69d453bf89aae865ea6878263"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ReconnectSdnControllerAction.Result res = action.call()
```

5.3.1.6 SdnControllerAddHost

API Request

URLs

```
POST zstack/v1/sdn-controllers/{sdnControllerUuid}/hosts/{hostUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST http://localhost:8080/zstack/v1/sdn-controllers/13dced0afb8d3bb4ad238eb476eca64e/hosts/1f4e13ef459c39968a10f79cc5905ea4
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sdnControllerUuid	String	url	The SDN controller UUID.		5.3.20

Name	Type	Location	Description	Optional Value	Starting Version
hostUuid	String	url	The host UUID.		5.3.20
vSwitchType	String	body	Optional. The virtual switch type.	• OvsKernel • OvsDpdk • SRIOV	5.3.20
nicNames	List	body	The name list of NICs.		5.3.20
vteplp	String	body	Optional. The VTEP IP.		5.3.20
systemTags	List	body	Optional. The system tags.		5.3.20
userTags	List	body	Optional. The user tags.		5.3.20
netmask	String	body	Optional. The VTEP IP netmask.		5.3.20
bondMode	String	body	Optional. The NIC bond mode.		5.3.20
lacpMode	String	body	Optional. The NIC LACP mode.		5.3.20

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2b317c278d253df6bab1acd9b293d957",
    "vendorType": "H3C VCFC",
    "name": "sdn-1",
    "description": "sdn controller from vendor",
    "ip": "192.168.1.1",
    "username": "admin",
    "password": "password"
  }
}
```

}

Name	Type	Description	Starting Version
success	Boolean		5.3.20
inventory	SdnControllerInventory	See inventory .	5.3.20
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.20

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
vendorType	String		5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
ip	String		5.3.20
username	String		5.3.20
password	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
status	SdnControllerStatus	See status .	5.3.20
vniRanges	List	See vniRanges .	5.3.20
vxlanPools	List	See vxlanPool .	5.3.20
hostRefs	List	See hostRefs .	5.3.20

#status

Name	Type	Description	Starting Version
Connecting	SdnControllerStatus	Connecting.	5.3.20
Connected	SdnControllerStatus	Connected.	5.3.20

Name	Type	Description	Starting Version
Disconnected	SdnControllerStatus	Disconnected.	5.3.20

#vniRanges

名字	类型	描述	起始版本
startVni	Integer		5.3.20
endVni	Integer		5.3.20

#vxlanPools

Name	Type	Description	Start Version
sdnControllerUuid	String		5.3.20
attachedCidrs	Map		5.3.20
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
physicalInterface	String		5.3.20
type	String		5.3.20
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
attachedClusterUids	List		5.3.20
attachedVtepRefs	List	See attachedVtepRefs .	5.3.20
remoteVteps	List	See remoteVteps .	5.3.20
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs .	5.3.20

Name	Type	Description	Start Version
attachedVniRanges	List	See attachedVniRanges .	5.3.20

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vteplp	String	The VETP ip.	5.3.20
port	Integer	The port number.	5.3.20
type	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20

#remoteVteps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
clusterUuid	String	The cluster UUID.	5.3.20
vteplp	String	The VETP IP.	5.3.20
port	Integer	The port number.	5.3.20
type	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20

#attachedVxlanNetworkRefs

名字	类型	描述	起始版本
vni	Integer	The VNI number.	5.3.20
poolUuid	String	The VXLAN pool UUID.	5.3.20
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
physicalInterface	String	The physical interface.	5.3.20
type	String	The type of L2 network.	5.3.20
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
attachedClusterUuids	List	The UUID list of attached cluster.	5.3.20

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
startVni	Integer	The start VNI.	5.3.20
endVni	Integer	The end VNI.	5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20

Name	Type	Description	Starting Version
I2NetworkUuid	String	The L2 network UUID.	5.3.20

#hostRefs

Name	Type	Description	Starting Version
sdnControllerUuid	String	The SDN controller UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vSwitchType	String	The virtual switch type.	5.3.20
vteplp	String	The VTEP IP.	5.3.20
nicPciAddresses	String	The NIC PCI address mapping.	5.3.20
nicDrivers	String	The NIC driver mapping.	5.3.20
netmask	String	The VTEP IP netmask.	5.3.20
bondMode	String	The NIC bond mode.	5.3.20
lacpMode	String	The NIC LACP mode.	5.3.20

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.20
description	String	The brief description of the error.	5.3.20
details	String	The details about the error.	5.3.20
elaboration	String	The reserved field. Default value: null.	5.3.20
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.20

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.20

SDK Sample

Java SDK

```
SdnControllerAddHostAction action = new SdnControllerAddHostAction();
action.sdnControllerUuid = "13dced0afb8d3bb4ad238eb476eca64e";
action.hostUuid = "1f4e13ef459c39968a10f79cc5905ea4";
action.vSwitchType = "H3C VCFC";
action.vtepIp = "192.168.1.101";
action.netmask = "ens1 ens2";
action.bondMode = "active-backup";
action.lacpMode = "off";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SdnControllerAddHostAction.Result res = action.call();
```

Python SDK

```
SdnControllerAddHostAction action = SdnControllerAddHostAction()
action.sdnControllerUuid = "13dced0afb8d3bb4ad238eb476eca64e"
action.hostUuid = "1f4e13ef459c39968a10f79cc5905ea4"
action.vSwitchType = "H3C VCFC"
action.vtepIp = "192.168.1.101"
action.netmask = "ens1 ens2"
action.bondMode = "active-backup"
action.lacpMode = "off"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SdnControllerAddHostAction.Result res = action.call()
```

5.3.1.7 SdnControllerChangeHost

API Request

URLs

```
PUT zstack/v1/sdn-controllers/{sdnControllerUuid}/hosts/{hostUuid}/
actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
```

```

"sdnControllerChangeHost": {
  "vSwitchType": "H3C VCFC",
  "vtepIp": "192.168.1.101",
  "netmask": "ens1 ens2",
  "bondMode": "active-backup",
  "lacpMode": "off"
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"sdnControllerChangeHost":{"vSwitchType":"H3C
VCFC","vtepIp":"192.168.1.101","netmask":"ens1
ens2","bondMode":"active-backup","lacpMode":"off"}}' http://
localhost:8080/zstack/v1/sdn-
controllers/51a894d84f22366eb0ff853748f7cb1d/
hosts/772b68aff57f3bbb82c40d569d6bc76a/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sdnControllerUuid	String	url	The SDN controller UUID.		5.3.20
hostUuid	String	url	The host UUID.		5.3.20
vSwitchType	String	body (contained in the sdnControllerChangeHost structure)	Optional. The virtual switch type.	- OvnDpdk - OvnKernel	5.3.20
nicNames	List	body (contained in the sdnController	Optional. The list of nic names.		5.3.20

Name	Type	Location	Description	Optional Value	Starting Version
		lerChangeHoststructure)			
vteplp	String	body (contained in the sdnControlIerChangeHoststructure)	Optional. The VTEP IP.		5.3.20
netmask	String	body (contained in the sdnControlIerChangeHoststructure)	Optional. The VTEP IP netmask.		5.3.20
bondMode	String	body (contained in the sdnControlIerChangeHoststructure)	Optional. The bond mode.		5.3.20
lacpMode	String	body(containted in the sdnControlIerChangeHoststructure)	Optional. The LACP mode.		5.3.20
systemTags	List	body	Optional. The system tags.		5.3.20
userTags	List	body	Optional. The user tags.		5.3.20

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b2d35464d0db3362b605c1e79814f237",
    "vendorType": "H3C VCFC",
    "name": "sdn-1",
    "description": "sdn controller from vendor",
    "ip": "192.168.1.1",
```

```

    "username": "admin",
    "password": "password"
  }
}

```

Name	Type	Description	Starting Version
success	Boolean		5.3.20
inventory	SdnControllerInventory	See inventory .	5.3.20
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.20

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
vendorType	String		5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
ip	String		5.3.20
username	String		5.3.20
password	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
status	SdnControllerStatus	See status .	5.3.20
vniRanges	List	See vniRanges .	5.3.20
vxlansPools	List	See vxlansPools .	5.3.20
hostRefs	List	See hostRefs .	5.3.20

#status

Name	Type	Description	Starting Version
Connecting	SdnControllerStatus	Connecting.	5.3.20
Connected	SdnControllerStatus	Connected.	5.3.20
Disconnected	SdnControllerStatus	Disconnected.	5.3.20

#vniRanges

Name	Type	Description	Starting Version
startVni	Integer		5.3.20
endVni	Integer		5.3.20

#vxlanPools

Name	Type	Description	Start Version
sdnControllerUuid	String		5.3.20
attachedCidrs	Map		5.3.20
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
physicalInterface	String		5.3.20
type	String		5.3.20
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
attachedClusterUuids	List		5.3.20
attachedVtepRefs	List	See attachedVtepRefs .	5.3.20
remoteVteps	List	See remoteVteps .	5.3.20

Name	Type	Description	Start Version
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs .	5.3.20
attachedVniRanges	List	See attachedVniRanges .	5.3.20

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vteplp	String	The vtep ip.	5.3.20
port	Integer	The port number.	5.3.20
type	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20

#remoteVteps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
clusterUuid	String	The cluster UUID.	5.3.20
vteplp	String	The VTEP IP.	5.3.20
port	Integer	The port number.	5.3.20
type	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20

#attachedVxlanNetworkRefs

Name	Type	Description	Starting Version
vni	Integer	The VNI number.	5.3.20
poolUuid	String	The VXLAN pool UUID.	5.3.20
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
physicalInterface	String	The physical interface.	5.3.20
type	String	The type of L2 network.	5.3.20
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
attachedClusterUuids	List	The UUID list of attached cluster.	5.3.20

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
startVni	Integer	The start VNI.	5.3.20
endVni	Integer	The end VNI.	5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20

Name	Type	Description	Starting Version
I2NetworkUuid	String	The L2 network UUID.	5.3.20

#hostRefs

Name	Type	Description	Starting Version
sdnControllerUuid	String	The SDN controller UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vSwitchType	String	The virtual switch type.	5.3.20
vteplp	String	The VTEP IP.	5.3.20
nicPciAddresses	String	The NIC PCI address mapping.	5.3.20
nicDrivers	String	The NIC driver mapping.	5.3.20
netmask	String	The VTEP IP netmask.	5.3.20
bondMode	String	The NIC bond mode.	5.3.20
lacpMode	String	The NIC LACP mode.	5.3.20

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.20
description	String	The brief description of the error.	5.3.20
details	String	The details about the error.	5.3.20
elaboration	String	The reserved field. Default value: null.	5.3.20
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.20

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.20

SDK Sample

Java SDK

```
SdnControllerChangeHostAction action = new SdnControllerChangeHostAction();
action.sdnControllerUuid = "51a894d84f22366eb0ff853748f7cb1d";
action.hostUuid = "772b68aff57f3bbb82c40d569d6bc76a";
action.vSwitchType = "H3C VCFC";
action.vtepIp = "192.168.1.101";
action.netmask = "ens1 ens2";
action.bondMode = "active-backup";
action.lacpMode = "off";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SdnControllerChangeHostAction.Result res = action.call();
```

Python SDK

```
SdnControllerChangeHostAction action = SdnControllerChangeHostAction()
action.sdnControllerUuid = "51a894d84f22366eb0ff853748f7cb1d"
action.hostUuid = "772b68aff57f3bbb82c40d569d6bc76a"
action.vSwitchType = "H3C VCFC"
action.vtepIp = "192.168.1.101"
action.netmask = "ens1 ens2"
action.bondMode = "active-backup"
action.lacpMode = "off"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SdnControllerChangeHostAction.Result res = action.call()
```

5.3.1.8 SdnControllerRemoveHost

API Request

URLs

```
DELETE zstack/v1/sdn-controllers/{sdnControllerUuid}/hosts/{hostUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/sdn-
controllers/2adbaedc05a03129bd055ba7a3f045cc/
hosts/1fb1da4d101335b2b981f0b107ac7ba8
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sdnControllerUuid	String	url	The SDN controller UUID.		5.3.20
hostUuid	String	url	The host UUID.		5.3.20
systemTags	List	body	Optional. The system tags.		5.3.20
userTags	List	body	Optional. The user tags.		5.3.20

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5aedd20ff2883bca8bdcc0dd7a46e779",
    "vendorType": "H3C VCFC",
    "name": "sdn-1",
    "description": "sdn controller from vendor",
    "ip": "192.168.1.1",
    "username": "admin",
    "password": "password"
  }
}
```

Name	Type	Description	Starting Version
success	Boolean		5.3.20
inventory	SdnControllerInventory	See inventory .	5.3.20
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.20

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
vendorType	String		5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
ip	String		5.3.20
username	String		5.3.20
password	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
status	SdnControllerStatus	See status .	5.3.20
vniRanges	List	See vniRanges .	5.3.20
vxlanPools	List	See vxlanPools .	5.3.20
hostRefs	List	See hostRefs .	5.3.20

#status

Name	Type	Description	Starting Version
Connecting	SdnControllerStatus	Connecting.	5.3.20
Connected	SdnControllerStatus	Connected.	5.3.20
Disconnected	SdnControllerStatus	Disconnected.	5.3.20

#vniRanges

Name	Type	Description	Starting Version
startVni	Integer		5.3.20
endVni	Integer		5.3.20

#vxlanPools

Name	Type	Description	Start Version
sdnControllerUuid	String		5.3.20
attachedCidrs	Map		5.3.20
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
physicalInterface	String		5.3.20
type	String		5.3.20
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
attachedClusterUuids	List		5.3.20
attachedVtepRefs	List	See attachedVtepRefs .	5.3.20
remoteVteps	List	See remoteVteps .	5.3.20
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs .	5.3.20
attachedVniRanges	List	See attachedVniRanges .	5.3.20

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vteplp	String	The vtep ip.	5.3.20
port	Integer	The port number.	5.3.20

Name	Type	Description	Starting Version
type	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20

#remoteVteps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
clusterUuid	String	The cluster UUID.	5.3.20
vteplp	String	The VTEP IP.	5.3.20
port	Integer	The port number.	5.3.20
type	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20

#attachedVxlanNetworkRefs

Name	Type	Description	Starting Version
vni	Integer	The VNI number.	5.3.20
poolUuid	String	The VXLAN pool UUID .	5.3.20
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
physicalInterface	String	The physical interface.	5.3.20

Name	Type	Description	Starting Version
type	String	The type of L2 network .	5.3.20
vSwitchType	String		5.3.20
virtualNetworkId	Integer		5.3.20
isolated	Boolean		5.3.20
pvlan	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
attachedClusterUuids	List	The UUID list of attached cluster.	5.3.20

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
startVni	Integer	The start VNI.	5.3.20
endVni	Integer	The end VNI.	5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
l2NetworkUuid	String	The L2 network UUID.	5.3.20

#hostRefs

Name	Type	Description	Starting Version
sdnControllerUuid	String	The SDN controller UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
vSwitchType	String	The virtual switch type.	5.3.20

Name	Type	Description	Starting Version
vteplp	String	The VTEP IP.	5.3.20
nicPciAddresses	String	The NIC PCI address mapping.	5.3.20
nicDrivers	String	The NIC driver mapping.	5.3.20
netmask	String	The VTEP IP netmask.	5.3.20
bondMode	String	The NIC bond mode.	5.3.20
lacpMode	String	The NIC LACP mode.	5.3.20

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.20
description	String	The brief description of the error.	5.3.20
details	String	The details about the error.	5.3.20
elaboration	String	The reserved field. Default value: null.	5.3.20
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.20
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.20

SDK Sample

Java SDK

```
SdnControllerRemoveHostAction action = new SdnControllerRemoveHostAction();
action.sdnControllerUuid = "2adbaedc05a03129bd055ba7a3f045cc";
action.hostUuid = "1fb1da4d101335b2b981f0b107ac7ba8";
action.vSwitchType = "OvnDpdk";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SdnControllerRemoveHostAction.Result res = action.call();
```

Python SDK

```
SdnControllerRemoveHostAction action = SdnControllerRemoveHostAction()
action.sdnControllerUuid = "2adbaedc05a03129bd055ba7a3f045cc"
action.hostUuid = "1fb1da4d101335b2b981f0b107ac7ba8"
action.vSwitchType = "OvnDpdk"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SdnControllerRemoveHostAction.Result res = action.call()
```

5.3.1.9 CreateOvnControllerVm

API Request

URLs

```
POST zstack/v1/ovn/instances
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "zstack ovn controller",
    "description": "this is a sdn controller instance",
    "strategy": "InstantStart"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"zstack ovn
controller","description":"this is a sdn controller
instance","strategy":"InstantStart"}}' http://localhost:8080/zstack/
v1/ovn/instances
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	Optional. The OVN instance name.		5.3.20
instanceOf feringUuid	String	body (contained in the params structure)	Optional. The OVN offering UUID.		5.3.20
cpuNum	Integer	body (contained in the params structure)	Optional. The CPU number.		5.3.20
memorySize	Long	body (contained in the params structure)	Optional. The memory size.		5.3.20
reservedMe morySize	Long	body (contained in the params structure)	Optional.		5.3.20
imageUuid	String	body (contained in the params structure)	The image UUID.		5.3.20
l3NetworkU uids	List	body (contained in the params structure)	Optional. The L3 network UUID.		5.3.20
vmNicParams	String	body (contained in the params structure)	Optional.		5.3.20

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional.	- UserVm - ApplianceVm	5.3.20
rootDiskOfferingUuid	String	body (contained in the params structure)	Optional.		5.3.20
rootDiskSize	Long	body (contained in the params structure)	Optional.		5.3.20
dataDiskSizes	List	body (contained in the params structure)	Optional		5.3.20
dataDiskOfferingUuids	List	body (contained in the params structure)	Optional.		5.3.20
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID.		5.3.20
clusterUuid	String	body (contained in the params structure)	Optional. The cluster UUID.		5.3.20
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		5.3.20
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	Optional.		5.3.20

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		5.3.20
defaultL3NetworkUuid	String	body (contained in the params structure)	Optional.		5.3.20
strategy	String	body (contained in the params structure)	Optional.	- InstantStart - JustCreate - CreateStopped	5.3.20
rootVolumeSystemTags	List	body (contained in the params structure)	Optional.		5.3.20
dataVolumeSystemTags	List	body (contained in the params structure)	Optional.		5.3.20
dataVolumeSystemTagsOnIndex	Map	body (contained in the params structure)	Optional.		5.3.20
sshKeyPairUuids	List	body (contained in the params structure)	Optional.		5.3.20
platform	String	body (contained in the params structure)	Optional.	- Linux - Windows - Other - Paravirtualization - WindowsVirtio	5.3.20

Name	Type	Location	Description	Optional Value	Starting Version
guestOsType	String	body (contained in the params structure)	Optional.		5.3.20
architecture	String	body (contained in the params structure)	Optional.	- x86_64 - aarch64 - mips64el - loongarch64	5.3.20
virtio	Boolean	body (contained in the params structure)	Optional.		5.3.20
diskAOs	List	body (contained in the params structure)	Optional.		5.3.20
resourceUuid	String	body (contained in the params structure)	The resource UUID.		5.3.20
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		5.3.20
systemTags	List	body	Optional. The system tags.		5.3.20
userTags	List	body	Optional. The user tags.		5.3.20

API Response

Sample Response

```
{
  "inventory": {}
}
```

}

Name	Type	Description	Starting Version
success	Boolean		5.3.20
inventory	ApplianceVmInventory	See inventory .	5.3.20
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.20

#inventory

Name	Type	Description	Starting Version
applianceVmType	String		5.3.20
managementNetworkUuid	String		5.3.20
defaultRouteL3NetworkUuid	String		5.3.20
status	String		5.3.20
agentPort	Integer		5.3.20
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20
zoneUuid	String	The zone UUID.	5.3.20
clusterUuid	String	The cluster UUID.	5.3.20
imageUuid	String	The image UUID.	5.3.20
hostUuid	String	The host UUID.	5.3.20
lastHostUuid	String		5.3.20
instanceOfferingUuid	String	The instance offering UUID.	5.3.20
rootVolumeUuid	String	The root volume UUID.	5.3.20
platform	String		5.3.20

Name	Type	Description	Starting Version
defaultL3NetworkUuid	String		5.3.20
type	String		5.3.20
hypervisorType	String		5.3.20
memorySize	Long		5.3.20
cpuNum	Integer		5.3.20
cpuSpeed	Long		5.3.20
allocatorStrategy	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
state	String		5.3.20
vmNics	List	See vmNics .	5.3.20
allVolumes	List	See allVolumes .	5.3.20

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
vmInstanceUuid	String	The VM instance UUID.	5.3.20
l3NetworkUuid	String	The L3 network UUID.	5.3.20
ip	String		5.3.20
mac	String		5.3.20
hypervisorType	String		5.3.20
netmask	String		5.3.20
gateway	String		5.3.20
metaData	String		5.3.20
ipVersion	Integer		5.3.20
driverType	String		5.3.20
internalName	String		5.3.20
deviceId	Integer		5.3.20

Name	Type	Description	Starting Version
type	String		5.3.20
state	String	The nic state.	5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
usedIps	List	See usedIps .	5.3.20

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
ipRangeUuid	String	The IP range UUID.	5.3.20
l3NetworkUuid	String	The L3 network UUID.	5.3.20
ipVersion	Integer		5.3.20
ip	String		5.3.20
netmask	String		5.3.20
gateway	String		5.3.20
usedFor	String	The reason for allocation.	5.3.20
ipInLong	long		5.3.20
ipInBinary	byte[]		5.3.20
vmNicUuid	String	The VM NIC UUID.	5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20
description	String	The detailed description of the resource.	5.3.20

Name	Type	Description	Starting Version
primaryStorageUuid	String	The primary storage UUID.	5.3.20
vmInstanceUuid	String	The VM instance UUID.	5.3.20
diskOfferingUuid	String	The disk offering UUID.	5.3.20
rootImageUuid	String		5.3.20
installPath	String		5.3.20
type	String		5.3.20
format	String		5.3.20
size	Long		5.3.20
actualSize	Long		5.3.20
deviceId	Integer		5.3.20
state	String		5.3.20
status	String		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
isShareable	Boolean		5.3.20
volumeQos	String		5.3.20
lastDetachDate	Timestamp		5.3.20
lastVmInstanceUuid	String		5.3.20

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.20

Name	Type	Description	Starting Version
description	String	The brief description of the error.	5.3.20
details	String	The details about the error.	5.3.20
elaboration	String	The reserved field. Default value: null.	5.3.20
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.20
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.20

SDK Sample

Java SDK

```
CreateOvnControllerVmAction action = new CreateOvnControllerVmAction();
action.name = "zstack ovn controller";
action.description = "this is a sdn controller instance";
action.strategy = "InstantStart";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateOvnControllerVmAction.Result res = action.call();
```

Python SDK

```
CreateOvnControllerVmAction action = CreateOvnControllerVmAction()
action.name = "zstack ovn controller"
action.description = "this is a sdn controller instance"
action.strategy = "InstantStart"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateOvnControllerVmAction.Result res = action.call()
```

5.3.1.10 CreateOvnControllerOffering

API Request

URLs

```
POST zstack/v1/instance-offerings/ovn
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "zoneUuid": "9ea522ec01fc3da286fa47b8a60a0824",
    "managementNetworkUuid": "3302e9bed4e33ab68912cf3d75fcc749",
    "imageUuid": "c2e0cc0faa713de795a079ad7b6470d0",
    "name": "ovn-Offering",
    "cpuNum": 2,
    "memorySize": 1024,
    "reservedMemorySize": 0,
    "sortKey": 0,
    "type": "ovn"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"zoneUuid": "9ea522ec01fc3da286fa47b8a60a0824", "managementNetworkUuid": "3302e9bec
Offering", "cpuNum": 2, "memorySize": 1024, "reservedMemorySize": 0, "sortKey": 0, "type":
http://localhost:8080/zstack/v1/instance-offerings/ovn
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
zoneUuid	String	body (contained in the params structure)	The zone UUID.		5.3.0
management NetworkUuid	String	body (contained in the params structure)	The management network UUID.		5.3.0
imageUuid	String	body (contained in the params structure)	The image UUID.		5.3.0
name	String	body (contained in the params structure)	The offering name.		5.3.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		5.3.0
cpuNum	int	body (contained in the params structure)	The CPU number.		5.3.0
memorySize	long	body (contained in the params structure)	The memory size in Byte.		5.3.0
reservedMemorySize	long	body (contained in the params structure)	Optional.		5.3.0
allocatorStrategy	String	body (contained in the params structure)	Optional. The allocation strategy.		5.3.0

Name	Type	Location	Description	Optional Value	Starting Version
sortKey	int	body (contained in the params structure)	Optional.		5.3.0
type	String	body (contained in the params structure)	Optional.		5.3.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		5.3.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		5.3.0
systemTags	List	body	Optional. The system tags.		5.3.0
userTags	List	body	Optional. The user tags.		5.3.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3b0af4671cc93f619ef326a3c99d825c",
    "name": "instanceOffering1",
    "cpuNum": 2,
    "cpuSpeed": 1,
    "type": "UserVm",
    "allocatorStrategy": "Mevoco",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
success	Boolean		5.3.20

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.3.20
inventory	InstanceOfferingInventory	See inventory .	5.3.20

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.20
description	String	The brief description of the error.	5.3.20
details	String	The details about the error.	5.3.20
elaboration	String	The reserved field. Default value: null.	5.3.20
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.20
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.20

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.20
name	String	The resource name.	5.3.20

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	5.3.20
cpuNum	Integer	The CPU number.	5.3.20
cpuSpeed	Integer	The CPU speed.	5.3.20
memorySize	Long	The memory size.	5.3.20
type	String	The type.	5.3.20
allocatorStrategy	String	The allocation strategy.	5.3.20
sortKey	Integer		5.3.20
createDate	Timestamp	The creation date.	5.3.20
lastOpDate	Timestamp	The last operation date.	5.3.20
state	String	The state.	5.3.20

SDK Sample

Java SDK

```
CreateOvnControllerOfferingAction action = new CreateOvnControllerOfferingAction();
action.zoneUuid = "9ea522ec01fc3da286fa47b8a60a0824";
action.managementNetworkUuid = "3302e9bed4e33ab68912cf3d75fcc749";
action.imageUuid = "c2e0cc0faa713de795a079ad7b6470d0";
action.name = "ovn-Offering";
action.cpuNum = 2;
action.memorySize = 1024;
action.reservedMemorySize = 0;
action.sortKey = 0;
action.type = "Ovn";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateOvnControllerOfferingAction.Result res = action.call();
```

Python SDK

```
CreateOvnControllerOfferingAction action = CreateOvnControllerOfferingAction()
action.zoneUuid = "9ea522ec01fc3da286fa47b8a60a0824"
action.managementNetworkUuid = "3302e9bed4e33ab68912cf3d75fcc749"
action.imageUuid = "c2e0cc0faa713de795a079ad7b6470d0"
action.name = "ovn-Offering"
action.cpuNum = 2
action.memorySize = 1024
action.reservedMemorySize = 0
action.sortKey = 0
action.type = "Ovn"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateOvnControllerOfferingAction.Result res = action.call()
```

5.3.2 L2 Network Operations

5.3.2.1 CreateL2VxlanNetworkPool

API Request

URLs

```
POST zstack/v1/l2-networks/vxlan-pool
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-NetPool",
    "description": "Test",
    "zoneUuid": "ec6cc473d1c345528b92da754cd8fa00"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-NetPool","description":"Test","zoneUuid":"2de2048daac33068aecac1f5b40d1343"}}' \
http://localhost:8080/zstack/v1/l2-networks/vxlan-pool
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
physicalInterface	String	body (contained in the params structure)			0.6
type	String	body (contained in the params structure)	Optional. The type.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
vSwitchType	String	body (contained in the params structure)	Optional. The type of the vSwitch.	- LinuxBridge - OvsDpdk	4.8.0
tagUuid	List	body (contained in the params structure)	Optional. The Uuid tags list.		4.8.0

API Response

Sample Response

```
{
```

```

"inventory": {
  "name": "Test-NetPool",
  "description": "Test",
  "zoneUuid": "3f35bd50dab14ababe3d85736b63aba7",
  "type": "L2VxlanNetwork"
}

```

Name	Type	Description	Starting Version
success	boolean		4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L2VxlanNetworkPoolInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
attachedCidrs	Map		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6
attachedVtepRefs	List	See attachedVtepRefs .	0.6
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs .	0.6
attachedVniRanges	List	See attachedVniRanges .	0.6

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
hostUuid	String	The host UUID.	0.6
vteplp	String		0.6
port	Integer		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
LastOpDate	Timestamp	The last operation date.	0.6
poolUuid	String		0.6

#attachedVxlanNetworkRefs

Name	Type	Description	Starting Version
vni	Integer		0.6
poolUuid	String		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startVni	Integer		0.6
endVni	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6

SDK Sample

Java SDK

```
CreateL2VxlanNetworkPoolAction action = new CreateL2VxlanNetworkPoolAction();
```

```

action.name = "Test-NetPool";
action.description = "Test";
action.zoneUuid = "2de2048daac33068aecac1f5b40d1343";
action.vSwitchType = "LinuxBridge";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateL2VxlanNetworkPoolAction.Result res = action.call();

```

Python SDK

```

CreateL2VxlanNetworkPoolAction action = CreateL2VxlanNetworkPoolAction
()
action.name = "Test-NetPool"
action.description = "Test"
action.zoneUuid = "2de2048daac33068aecac1f5b40d1343"
action.vSwitchType = "LinuxBridge"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateL2VxlanNetworkPoolAction.Result res = action.call()

```

5.3.2.2 QueryL2VxlanNetworkPool

API Request

URLs

```

GET zstack/v1/l2-networks/vxlan-pool
GET zstack/v1/l2-networks/vxlan-pool/{uuid}

```

Headers

```

Authorization: OAuth the-session-uuid

```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b2132aefec76492cb00aff0a2d97a202" \
-X GET http://localhost:8080/zstack/v1/l2-networks/vxlan-pool

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 07c093f70f10467e826adc1743a022e6" \
-X GET http://localhost:8080/zstack/v1/l2-networks/vxlan-
pool/0576843440c74069b541faa856f71d39

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryL2VxlanNetworkPool`, and pressing the **Tab** key.

API Response

Sample Response

```

{
  "inventories": [
    {

```

```

"name": "Test-Net",
"description": "Test",
"zoneUuid": "6199e247f6bf4157a41e51ed7ff2f78c",
"type": "L2VxlanNetworkPool"
"vSwitchType": "LinuxBridge"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
attachedCidrs	Map		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6
attachedVtepRefs	List	See attachedVtepRefs .	0.6
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs .	0.6
attachedVniRanges	List	See attachedVniRanges .	0.6
vSwitchType	String	The vSwitch type.	4.8.0

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
hostUuid	String	The host UUID.	0.6
vteplp	String		0.6
port	Integer		0.6
type	String		0.6
poolUuid	String		0.6

#attachedVxlanNetworkRefs

Name	Type	Description	Starting Version
vni	Integer		0.6
poolUuid	String		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startVni	Integer		0.6
endVni	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6

SDK Sample

Java SDK

```
QueryL2VxlanNetworkPoolAction action = new QueryL2VxlanNetworkPoolAction();
action.conditions = asList();
action.sessionId = "773c52887a0945c4b5dee525e71f5287";
```

```
QueryL2VxlanNetworkPoolAction.Result res = action.call();
```

Python SDK

```
QueryL2VxlanNetworkPoolAction action = QueryL2VxlanNetworkPoolAction()
action.conditions = []
action.sessionId = "0fa3249e9dbd48f3951a93a772882f67"
QueryL2VxlanNetworkPoolAction.Result res = action.call()
```

5.3.2.3 CreateL2VxlanNetwork

API Request

URLs

```
POST zstack/v1/l2-networks/vxlan
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vni": 10,
    "poolUuid": "c27a329718ed3585a27d227174ed1ace",
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "8dd66847fcf930178acc687cb4c1438c",
    "vSwitchType": "LinuxBridge"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vni":10,"poolUuid":"c27a329718ed3585a27d227174ed1ace","name":"Test-
Net","description":"Test","zoneUuid":"8dd66847fcf930178acc687cb4c1438c","vSwitchT
\
http://localhost:8080/zstack/v1/l2-networks/vxlan
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vni	Integer	body (contained in the params structure)	Optional. The VNI.		0.6
poolUuid	String	body (contained in the params structure)	The VXLAN pool UUID.		0.6
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
physicalInterface	String	body (contained in the params structure)			0.6
type	String	body (contained in the params structure)	Optional. The type.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
vSwitchType	String	body (contained in the params structure)	Optional. The type of the vSwitch.	- LinuxBridge - OvsDpdk	4.8.0
tagUuid	List	body (contained in the params structure)	Optional. The Uuid tags list.		4.8.0

API Response

Sample Response

```
{
  "inventory": {
    "vni": 10,
    "poolUuid": "848a93cca6b43a67930af04c70f2abd3",
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "1b6c6d39024a3e59ba597cd651fe064f",
    "type": "L2VxlanNetwork"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L2VxlanNetworkPoolInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
vni	Integer		0.6
poolUuid	String	The VXLAN pool UUID.	0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
CreateL2VxlanNetworkAction action = new CreateL2VxlanNetworkAction();
action.vni = 10;
action.poolUuid = "c27a329718ed3585a27d227174ed1ace";
action.name = "Test-Net";
action.description = "Test";
action.zoneUuid = "8dd66847fcf930178acc687cb4c1438c";
action.vSwitchType = "LinuxBridge";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateL2VxlanNetworkAction.Result res = action.call();
```

Python SDK

```
CreateL2VxlanNetworkAction action = CreateL2VxlanNetworkAction()
action.vni = 10
action.poolUuid = "c27a329718ed3585a27d227174ed1ace"
action.name = "Test-Net"
action.description = "Test"
action.zoneUuid = "8dd66847fcf930178acc687cb4c1438c"
action.vSwitchType = "LinuxBridge"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateL2VxlanNetworkAction.Result res = action.call()
```

5.3.2.4 QueryL2VxlanNetwork

API Request

URLs

```
GET zstack/v1/l2-networks/vxlan
GET zstack/v1/l2-networks/vxlan/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth eff53f15d4ad4f17b3dc13bc15d7f0f6" \
-X GET http://localhost:8080/zstack/v1/l2-networks/vxlan
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 801edfc2a7f244198ed2f13743c1b232" \
-X GET http://localhost:8080/zstack/v1/l2-networks/
vxlan/8dcdd0a8c57a45a5a884887f5a0681c7
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryL2VxlanNetwork`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "Test-Net",
      "description": "Test",
      "zoneUuid": "ef52a71330384e3080c88b243bf3fae2",
      "type": "L2VxlanNetwork",
      "vSwitchType": "LinuxBridge"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
vni	Integer		0.6
poolUuid	String		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6
vSwitchType	String	The vSwitch type.	4.8.0

SDK Sample

Java SDK

```
QueryL2VxlanNetworkAction action = new QueryL2VxlanNetworkAction();
action.conditions = asList();
action.sessionId = "4a008984bc2844e59b6fa8acf188d587";
QueryL2VxlanNetworkAction.Result res = action.call();
```

Python SDK

```
QueryL2VxlanNetworkAction action = QueryL2VxlanNetworkAction()
action.conditions = []
action.sessionId = "c530e08c8ad24dbeb986647100eff212"
```

```
QueryL2VxlanNetworkAction.Result res = action.call()
```

5.3.2.5 CreateL2NoVlanNetwork

API Request

URLs

```
POST zstack/v1/l2-networks/no-vlan
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "c23ba5023fcb3b4b8c3e76c443005e3d",
    "physicalInterface": "eth0",
    "vSwitchType": "LinuxBridge",
    "isolated": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-Net","description":"Test","zoneUuid":"c23ba5023fcb3b4b8c3e76c443005e3d","physicalInterface":"eth0","vSwitchType":"LinuxBridge","isolated":false},"systemTags":[],"userTags":[]}' \
http://localhost:8080/zstack/v1/l2-networks/no-vlan
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in	The common L2 network name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
description	String	body (contained in the params structure)	Optional. The detailed description of the common L2 network.		0.6
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
physicalInterface	String	body (contained in the params structure)	The physical interface.		0.6
type	String	body (contained in the params structure)	The L2 network type.		0.6
vSwitchType	String	body (contained in the params structure)	Optional. The vSwitch type.	- LinuxBridge - OvsDpdk - MacVlan	5.3.20
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the L2 network will use the specified value as UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The Uuid tags list.		3.4.0
isolated	Boolean	body (contained in the params structure)	Optional.		5.3.20
pvlan	String	body (contained in the params structure)	Optional.		5.3.20

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L2VxlanNetworkPoolInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String	The physical interface.	5.3.20
type	String	The type of L2 network .	5.3.20
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUID.	5.3.20

SDK Sample

Java SDK

```
CreateL2NoVlanNetworkAction action = new CreateL2NoVlanNetworkAction
();
action.name = "Test-Net";
action.description = "Test";
action.zoneUuid = "c23ba5023fcb3b4b8c3e76c443005e3d";
action.physicalInterface = "eth0";
action.vSwitchType = "LinuxBridge";
action.isolated = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateL2NoVlanNetworkAction.Result res = action.call();
```

Python SDK

```
CreateL2NoVlanNetworkAction action = CreateL2NoVlanNetworkAction()
action.name = "Test-Net"
action.description = "Test"
action.zoneUuid = "c23ba5023fcb3b4b8c3e76c443005e3d"
action.physicalInterface = "eth0"
action.vSwitchType = "LinuxBridge"
action.isolated = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateL2NoVlanNetworkAction.Result res = action.call()
```

5.3.2.6 CreateL2VlanNetwork

API Request

URLs

```
POST zstack/v1/l2-networks/vlan
```

Headers

```
OAuth: the-session-uuid
```

Body

```
{
  "params": {
    "vlan": 10,
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "43af355e5eae3ab0b74ee76ca9c19005",
    "physicalInterface": "eth0",
    "vSwitchType": "LinuxBridge",
```

```

    "isolated": false
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"vlan":10,"name":"Test-Net","description":"Test","zoneUuid":"43af355e5eae3ab0b74ee76ca9c19005","physicalInterface":"eth0"}}' \
http://localhost:8080/zstack/v1/l2-networks/vlan

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vlan	Integer	body (contained in the params structure)			0.6
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
physicalInterface	String	body (contained in the params structure)			0.6

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional.		0.6
vSwitchType	String	body (contained in the params structure)	Optional. The type of the vSwitch.	- LinuxBridge - OvsDpdk - MacVlan	0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
tagUuids	List	body (contained in the params structure)	Optional. The Uuid tags list.		4.8.0
solated	Boolean	body (contained in the params structure)			5.0.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "inventory": {
    "vlan": 10,
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "75aea7e72b5a3ce7a1f87efb70ac6339",
    "physicalInterface": "eth0",
    "type": "L2VlanNetwork"
  }
}
```


}

Name	Type	Description	Starting Version
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L2VxlanNetworkPoolInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
vlan	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
CreateL2VlanNetworkAction action = new CreateL2VlanNetworkAction();
action.vlan = 10;
action.name = "Test-Net";
action.description = "Test";
action.zoneUuid = "43af355e5eae3ab0b74ee76ca9c19005";
action.physicalInterface = "eth0";
action.vSwitchType = "LinuxBridge";
action.isolated = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateL2VlanNetworkAction.Result res = action.call();
```

Python SDK

```
CreateL2VlanNetworkAction action = CreateL2VlanNetworkAction()
action.vlan = 10
action.name = "Test-Net"
action.description = "Test"
action.zoneUuid = "43af355e5eae3ab0b74ee76ca9c19005"
action.physicalInterface = "eth0"
action.vSwitchType = "LinuxBridge"
action.isolated = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateL2VlanNetworkAction.Result res = action.call()
```

5.3.2.7 ChangeL2NetworkVlanId

API Request

URLs

```
PUT zstack/v1/l2-networks/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeL2NetworkVlanId": {
    "vlan": 1
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeL2NetworkVlanId":{"vlan":1}}' http://
localhost:8080/zstack/v1/l2-networks/808756594f2f3ce8bc33ca92499b7653/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.1.0
vlan	Integer	body (contained in the changeL2Ne	Optional.		5.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		workVlanId structure)			
type	String	body (contained in the changeL2NetworkVlanId structure)	Optional.		5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "inventory": {
    "vlan": 10,
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "c3b0e4551d0e39139c79ca8b63fb3964",
    "physicalInterface": "eth0",
    "type": "L2VlanNetwork"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventory	L2NetworkInventory	See inventory	5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0

Name	Type	Description	Starting Version
name	String	The resource name.	5.1.0
description	String	The brief description of the resource.	5.1.0
zoneUuid	String	The zone UUID.	5.1.0
physicalInterface	String	The physical interface.	5.1.0
type	String	The type of L2Network.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
attachedClusterUuids	List	The attached cluster UUIDs.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```
ChangeL2NetworkVlanIdAction action = new ChangeL2NetworkVlanIdAction();
action.uuid = "808756594f2f3ce8bc33ca92499b7653";
action.vlan = 1;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeL2NetworkVlanIdAction.Result res = action.call();
```

Python SDK

```
ChangeL2NetworkVlanIdAction action = ChangeL2NetworkVlanIdAction()
action.uuid = "808756594f2f3ce8bc33ca92499b7653"
action.vlan = 1
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeL2NetworkVlanIdAction.Result res = action.call()
```

5.3.2.8 QueryL2VlanNetwork

API Request

URLs

```
GET zstack/v1/l2-networks/vlan
GET zstack/v1/l2-networks/vlan/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 1456f654cfcb46889ff24bd83da741f4" \
-X GET http://localhost:8080/zstack/v1/l2-networks/vlan
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 3ad0ef4e609e43829cde6fcaac60d90d" \
-X GET http://localhost:8080/zstack/v1/l2-networks/vlan/
d1eefa849cc84978bacd10ef5e1da12f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryL2VlanNetwork`, and pressing the **Tab** key.

API Response

Sample Response

```
{
```

```

"inventories": [
  {
    "vlan": 10.0,
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "02681829852848e6b25d6a11aa673f0c",
    "physicalInterface": "eth0",
    "type": "L2VlanNetwork"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
vlan	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
QueryL2VlanNetworkAction action = new QueryL2VlanNetworkAction();
action.conditions = asList();
action.sessionId = "9ae1447a4dce41f9835c2a89ed7e7eba";
QueryL2VlanNetworkAction.Result res = action.call();
```

Python SDK

```
QueryL2VlanNetworkAction action = QueryL2VlanNetworkAction()
action.conditions = []
action.sessionId = "3e20ec335a82447e9e39c10b371de1b3"
```



```
QueryL2VlanNetworkAction.Result res = action.call()
```

5.3.2.9 DeleteL2Network

API Request

URLs

```
DELETE zstack/v1/l2-networks/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth ff3445cd125b4f67b6fc551133852726" \
-X DELETE http://localhost:8080/zstack/v1/l2-
networks/254811ac54a04835a8f82871f96ab86f?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.8.0
deleteMode	String	body	Optional. The delete mode.		4.8.0
systemTags	List	body	Optional. The system tags.		4.8.0
userTags	List	body	Optional. The user tags.		4.8.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
} /9
```

SDK Sample

Java SDK

```
DeleteL2NetworkAction action = new DeleteL2NetworkAction();
action.uuid = "8952ecc352fc49b9a0b22286772e74e2";
action.deleteMode = "Permissive";
action.sessionId = "1bece9d1092e47e7ba176ac2e3b03793";
DeleteL2NetworkAction.Result res = action.call();
```

Python SDK

```
DeleteL2NetworkAction action = DeleteL2NetworkAction()
action.uuid = "f1f6deb480d44b77b53b74784c17a1d9"
action.deleteMode = "Permissive"
action.sessionId = "9b914d6dc4d64c8f8f45452bad140f9f"
DeleteL2NetworkAction.Result res = action.call()
```

5.3.2.10 QueryL2Network

API Request

URLs

```
GET zstack/v1/l2-networks
GET zstack/v1/l2-networks/{uuid}
```

Headers

```
OAuth: the-session-uuid
```

Curl Sample

```
curl
-H "Content-Type: application/json;charset=UTF-8" \
-H "OAuth: 9bdaea2355c6417b9e6f3acff94fe731" \
-X GET http://localhost:8080/zstack/v1/l2-networks
```

```
curl
-H "Content-Type: application/json;charset=UTF-8" \
-H "OAuth: 0469a0dfcb7343abb2eb08d876ad3209" \
-X GET http://localhost:8080/zstack/v1/l2-networks/
a523215c60b14236869d249176fb328d
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryL2Network`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "vlan": 10.0,
      "name": "Test-Net",
      "description": "Test",
      "zoneUuid": "a5af85a0db3a4433b58ff429eea1e9a3",
      "physicalInterface": "eth0",
      "type": "L2VlanNetwork"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root	0.6

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
QueryL2NetworkAction action = new QueryL2NetworkAction();
action.conditions = asList();
action.sessionId = "c9c0aa502c3d4bdd8cf480364a17fe67";
QueryL2NetworkAction.Result res = action.call();
```

Python SDK

```
QueryL2NetworkAction action = QueryL2NetworkAction()
action.conditions = []
action.sessionId = "2170549725174f5f9eb390d314f86f8b"
```

```
QueryL2NetworkAction.Result res = action.call()
```

5.3.2.11 UpdateL2Network

AI Request

URLs

```
PUT zstack/v1/l2-networks/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateL2Network": {
    "name": "Test-Net",
    "description": "Test"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateL2Network":{"name":"Test-Net","description":"Test"}}' \
http://localhost:8080/zstack/v1/l2-networks/8a44ece25f973842b841591a554f5fee/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateL2Ne	Optional. The common L2 network name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		work structure)			
description	String	body (contained in the updateL2Network structure)	Optional. The detailed description of the common L2 network.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "vlan": 10.0,
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "95bb5b1156ff49caacf9acc2eda0058",
    "physicalInterface": "eth0",
    "type": "L2VlanNetwork"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L2NetworkInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	0.6

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
UpdateL2NetworkAction action = new UpdateL2NetworkAction();
action.uuid = "f7ea5335fcab4d438069879d62384b0e";
action.name = "Test-Net";
action.description = "Test";
action.sessionId = "05627ec42486449cb6b422ef927829f1";
UpdateL2NetworkAction.Result res = action.call();
```

Python SDK

```
UpdateL2NetworkAction action = UpdateL2NetworkAction()
action.uuid = "7dc08ad01b8a4d578aab2ae0ad750f1b"
action.name = "Test-Net"
action.description = "Test"
action.sessionId = "130b064e63204a479857ced03f550cf2"
UpdateL2NetworkAction.Result res = action.call()
```

5.3.2.12 GetL2NetworkTypes

API Request

URLs

```
GET zstack/v1/l2-networks/types
```

Headers

```
OAuth: the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "OAuth: 76514d7cdcf44b57bc26ff7b4ae0be63" \
-X GET http://localhost:8080/zstack/v1/l2-networks/types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "l2NetworkTypes": [
    "L2VlanNetwork",
    "L2NoVlanNetwork"
  ]
}
```

Name	Type	Description	Starting Version
types	List		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetL2NetworkTypesAction action = new GetL2NetworkTypesAction();
action.sessionId = "485005865e744e19a12ad2f9af2ea997";
GetL2NetworkTypesAction.Result res = action.call();
```

Python SDK

```
GetL2NetworkTypesAction action = GetL2NetworkTypesAction()
action.sessionId = "b34f3c756aa542789f35bc1774845bc1"
GetL2NetworkTypesAction.Result res = action.call()
```

5.3.2.13 AttachL2NetworkToCluster

API Request

URLs

```
POST zstack/v1/l2-networks/{l2NetworkUuid}/clusters/{clusterUuid}
```

Headers

```
OAuth: the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST http://localhost:8080/zstack/v1/l2-
networks/e852ba6eb4c03f2fafdb73ce838d8980/
clusters/112816423a1a3b50a58d54fd1f6a8665
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l2NetworkUuid	String	url	The L2 network UUID.		0.6
clusterUuid	String	url	The cluster UUID.		0.6
l2Provider Type	String	body	Optional. The type of L2 network provider.	LinuxBridge	4.8.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "vlan": 10,
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "95ab67ece21e3ce39896b9b391a21a94",
    "physicalInterface": "eth0",
    "type": "L2VlanNetwork"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L2NetworkInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
AttachL2NetworkToClusterAction action = new AttachL2NetworkToClusterAction();
action.l2NetworkUuid = "e852ba6eb4c03f2fafdb73ce838d8980";
action.clusterUuid = "112816423a1a3b50a58d54fd1f6a8665";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AttachL2NetworkToClusterAction.Result res = action.call();
```

Python SDK

```
AttachL2NetworkToClusterAction action = AttachL2NetworkToClusterAction
()
action.l2NetworkUuid = "e852ba6eb4c03f2fafdb73ce838d8980"
action.clusterUuid = "112816423a1a3b50a58d54fd1f6a8665"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachL2NetworkToClusterAction.Result res = action.call()
```

5.3.2.14 DetachL2NetworkFromCluster

API Request

URLs

```
DELETE/v1/l2-networks/{l2NetworkUuid}/clusters/{clusterUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
l2-networks/baef7db345553050846947bb2d818be0/
clusters/2fb51e7e35d339c4bac77819a9c4fea1?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l2NetworkUuid	String	url	The L2 network UUID.		0.6
clusterUuid	String	url	The cluster UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "vlan": 10,
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "7a531508c19d396d84abeda34b83d946",
    "physicalInterface": "eth0",
    "type": "L2VlanNetwork"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L2NetworkInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root	0.6

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
physicalInterface	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedClusterUuids	List		0.6

SDK Sample

Java SDK

```
DetachL2NetworkFromClusterAction action = new DetachL2NetworkFromClusterAction();
action.l2NetworkUuid = "baef7db345553050846947bb2d818be0";
action.clusterUuid = "2fb51e7e35d339c4bac77819a9c4fea1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachL2NetworkFromClusterAction.Result res = action.call();
```

Python SDK

```
DetachL2NetworkFromClusterAction action = DetachL2NetworkFromClusterAction()
action.l2NetworkUuid = "baef7db345553050846947bb2d818be0"
action.clusterUuid = "2fb51e7e35d339c4bac77819a9c4fea1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DetachL2NetworkFromClusterAction.Result res = action.call()
```

5.3.2.15 CreateVniRange

API Request

URLs

```
POST zstack/v1/l2-networks/vxlan-pool/{l2NetworkUuid}/vni-ranges
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "TestVniRange",
    "description": "Here is a Vni Range",
    "startVni": 10.0,
    "endVni": 5000.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"TestVniRange","description":"Here is a Vni Range","startVni":10.0,"endVni":5000.0}}' \
http://localhost:8080/zstack/v1/l2-networks/vxlan-pool/66b7ddcebeea33eaaa39a2b4667267ab/vni-ranges
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
startVni	Integer	body (contained in the params structure)			0.6
endVni	Integer	body (contained in the params structure)			0.6
l2NetworkUuid	String	url	The VXLAN pool UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "TestVniRange",
    "description": "Here is a Vni Range",
    "startVni": 10.0,
    "endVni": 5000.0,
    "l2NetworkUuid": "252d938da43a48c98ce93fe7163f14df"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	0.6

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventory	VniRangeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startVni	Integer		0.6

Name	Type	Description	Starting Version
endVni	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6

SDK Sample

Java SDK

```
CreateVniRangeAction action = new CreateVniRangeAction();
action.name = "TestVniRange";
action.description = "Here is a Vni Range";
action.startVni = 10.0;
action.endVni = 5000.0;
action.l2NetworkUuid = "9548ed5fc8434782890d5c6ae24d87a7";
action.sessionId = "977eac0795364c5995c20120e9e35ca1";
CreateVniRangeAction.Result res = action.call();
```

Python SDK

```
CreateVniRangeAction action = CreateVniRangeAction()
action.name = "TestVniRange"
action.description = "Here is a Vni Range"
action.startVni = 10.0
action.endVni = 5000.0
action.l2NetworkUuid = "d55172d6e90e403da46074d53c680838"
action.sessionId = "dfacd10f07444a99bca68426cc19f079"
CreateVniRangeAction.Result res = action.call()
```

5.3.2.16 QueryVniRange

API Request

URLs

```
GET zstack/v1/l2-networks/vxlan-pool/vni-range
GET zstack/v1/l2-networks/vxlan-pool/vni-range/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 337c51002a0f4fec9b9ced4cdd9ca08d" \
```

```
-X GET http://localhost:8080/zstack/v1/l2-networks/vxlan-pool/vni-range
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 69245f8e344f4adf95454deb1bfe74fb" \
-X GET http://localhost:8080/zstack/v1/l2-networks/vxlan-pool/vni-range/4397921aaa5d45c7ba9bbde764b89389
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVniRange`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "Test-Range",
      "description": "Test",
      "startVni": 10.0,
      "endVni": 10000.0,
      "l2NetworkUuid": "32e0539245504a22a474ea2f34db16d0"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startVni	Integer		0.6
endVni	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6

SDK Sample

Java SDK

```
QueryVniRangeAction action = new QueryVniRangeAction();
action.conditions = asList();
action.sessionId = "eb1c573c6d4240ecb746321b12f9e1d3";
```

```
QueryVniRangeAction.Result res = action.call();
```

Python SDK

```
QueryVniRangeAction action = QueryVniRangeAction()
action.conditions = []
action.sessionId = "89f7a520087049dcdbd87f91aa20994fa"
QueryVniRangeAction.Result res = action.call()
```

5.3.2.17 DeleteVniRange

API Request

URLs

```
DELETE/v1/l2-networks/vxlan-pool/vni-ranges/{uuid}?deleteMode={
deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 49bf51476d4f49e3b6322688a4c02027" \
-X DELETE http://localhost:8080/zstack/v1/l2-networks/vxlan-pool/vni-
ranges/57aae81f5ed248e3bea4509843ab919f?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVniRangeAction action = new DeleteVniRangeAction();
action.uuid = "8ad0e38ae63d4f2d86b9cd2283c5df03";
action.deleteMode = "Permissive";
action.sessionId = "85100440f4f94c68ba0884e09c7429dc";
DeleteVniRangeAction.Result res = action.call();
```

Python SDK

```
DeleteVniRangeAction action = DeleteVniRangeAction()
action.uuid = "4aef50ec1f784e66ab79ef021216389d"
action.deleteMode = "Permissive"
action.sessionId = "dfbae4e4897f497a9803a2a5dc23f848"
DeleteVniRangeAction.Result res = action.call()
```

5.3.2.18 UpdateVniRange

API Request

URLs

```
PUT zstack/v1/l2-networks/vxlan-pool/vni-ranges/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVniRange": {
    "name": "VNI-NEW"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVniRange":{"name":"VNI-NEW"}}' http://
localhost:8080/zstack/v1/l2-networks/vxlan-pool/vni-ranges/
f85dd9a8fc33c6a55f4786e0ffae52
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.3.0
name	String	body	Optional. The name.		3.3.0
systemTags	List	body	Optional. The system tags.		3.3.0
userTags	List	body	Optional. The user tags.		3.3.0

API Response**Sample Response**

```
{
  "inventory": {
    "name": "Test-Range",
    "description": "Test",
    "startVni": 10.0,
    "endVni": 10000.0,
    "l2NetworkUuid": "73f29ba3afd83876830ab1794046e47a"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.3.0

Name	Type	Description	Starting Version
		more information, see error .	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.3.0
description	String	The brief description of the error.	3.3.0
details	String	The details about the error.	3.3.0
elaboration	String	The reserved field. Default value: null.	3.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.3.0

SDK Sample

Java SDK

```
UpdateVniRangeAction action = new UpdateVniRangeAction();
action.uuid = "f85dd9a8fcdc33c6a55f4786e0ffae52";
action.name = "VNI-NEW";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVniRangeAction.Result res = action.call();
```

Python SDK

```
UpdateVniRangeAction action = UpdateVniRangeAction()
action.uuid = "f85dd9a8fcdc33c6a55f4786e0ffae52"
action.name = "VNI-NEW"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateVniRangeAction.Result res = action.call()
```

5.3.2.19 CreateL2TfNetwork

API Request

URLs

```
POST zstack/v1/l2-networks/tf
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Tf-L2-Network",
    "description": "Test",
    "zoneUuid": "10f059adb4c83f5ba9a296369d52ffbe",
    "vSwitchType": "LinuxBridge"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Tf-L2-Network","description":"Test","zoneUuid":"10f059adb4c83f5ba9a296369d52ffbe","vSwitchType":"LinuxBridge"},"systemTags":[],"userTags":[]}' \
http://localhost:8080/zstack/v1/l2-networks/tf
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ipPrefix	String	body (contained in the params structure)	Optional. The IP address prefix.		4.8.0

Name	Type	Location	Description	Optional Value	Starting Version
ipPrefixLength	Integer	body (contained in the params structure)	Optional. The IP address prefix length.		4.8.0
name	String	body (contained in the params structure)	The resource name.		4.8.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.8.0
zoneUuid	String	body (contained in the params structure)	The zone UUID.		4.8.0
physicalInterface	String	body (contained in the params structure)	The physical interface.		4.8.0
type	String	body (contained in the params structure)	Optional. The L2 network type.		4.8.0
vSwitchType	String	body (contained in the params structure)	Optional. The type of the vSwitch.	- LinuxBridge - OvsDpdk - MacVlan	4.8.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.8.0
tagUuids	List	body (contained in the params structure)	Optional. The Uuid tags list.		4.8.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.8.0
userTags	List	body	Optional. The user tags.		4.8.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "672906b1aeca3a68a24c1b07a4f8deb5",
    "name": "test",
    "zoneUuid": "b478828872db33a4807d90e9f16f39e4",
    "physicalInterface": "eth0"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.8.0
inventory	L2NetworkInventory	See inventory	4.8.0
success	boolean		4.8.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.8.0
description	String	The brief description of the error.	4.8.0
details	String	The details about the error.	4.8.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	4.8.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.8.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.8.0

#inventroy

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.8.0
name	String	The resource name.	4.8.0
description	String	The detailed description of the resource.	4.8.0
zoneUuid	String	The zone UUID.	4.8.0
physicalInterface	String	The physical interface.	4.8.0
type	String	The resource type.	4.8.0
createDate	Timestamp	The creation date.	4.8.0
lastOpDate	Timestamp	The last operation date.	4.8.0
attachedClusterUuids	List	The attached cluster UUID.	4.8.0

SDK Sample

Java SDK

```
CreateL2TfNetworkAction action = new CreateL2TfNetworkAction();
action.name = "Tf-L2-Network";
action.description = "Test";
action.zoneUuid = "10f059adb4c83f5ba9a296369d52ffbe";
action.vSwitchType = "LinuxBridge";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreateL2TfNetworkAction.Result res = action.call();
```

Python SDK

```
CreateL2TfNetworkAction action = CreateL2TfNetworkAction()
action.name = "Tf-L2-Network"
action.description = "Test"
action.zoneUuid = "10f059adb4c83f5ba9a296369d52ffbe"
action.vSwitchType = "LinuxBridge"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateL2TfNetworkAction.Result res = action.call()
```

5.3.2.20 CreateL2HardwareVxlanNetwork

API Request

URLs

```
POST zstack/v1/l2-networks/hardware-vxlan
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vni": 10,
    "poolUuid": "772ca51845273486bd60aeb13c545050",
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "79c1192d59303c218de085a48666cffa",
    "vSwitchType": "LinuxBridge"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vni":10,"poolUuid":"772ca51845273486bd60aeb13c545050","name":"Test-
Net","description":"Test","zoneUuid":"79c1192d59303c218de085a48666cffa","vSwitchT
\
```

`http://localhost:8080/zstack/v1/l2-networks/hardware-vxlan`

Request Parameters

Nmae	Type	Location	Description	Optional Value	Starting Version
vni	Integer	body (contained in the params structure)	Optional. The VNI number.		4.8.0
poolUuid	String	body (contained in the params structure)	The resource pool UUID.		4.8.0
name	String	body (contained in the params structure)	The resource name.		4.8.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.8.0
zoneUuid	String	body (contained in the params structure)	The zone UUID		4.8.0
physicalInterface	String	body (contained in the params structure)	The physical interface.		4.8.0
type	String	body (contained in the params structure)	Optional. The resource type.		4.8.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.8.0
tagUuids	List	body (contained in	Optional. The tag UUID list.		4.8.0

Nmae	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
systemTags	List	body	Optional. The system tags.		4.8.0
userTags	List	body	Optional. The user tags.		4.8.0
vSwitchType	String	body (contained in the params structure)	Optional. The type of the vSwiith.	- LinuxBridge - OvsDpdk	4.8.0

API Response

Sample Response

```
{
  "inventory": {
    "vni": 10,
    "poolUuid": "7b3b9aaa42d3364d846a598cce125174",
    "name": "Test-Net",
    "description": "Test",
    "zoneUuid": "e88a75173e193288b9a51c35f7c8e1ac",
    "type": "L2VxlanNetwork"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.8.0
inventory	L2VxlanNetworkInventory	See inventory	4.8.0

#error

Name	Type	Description	Starting Version
code	String	he error code, which is a numbered or	4.8.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.8.0
details	String	The details about the error.	4.8.0
elaboration	String	The reserved field. Default value: null.	4.8.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.8.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.8.0

#inventory

Name	Type	Description	Starting Version
vni	Integer	The VNI number.	4.8.0
poolUuid	String	Vxlan network pool uuid	4.8.0
uuid	String	The resource UUID.	4.8.0
name	String	The resource name.	4.8.0
description	String	The detailed description of the resource.	4.8.0
zoneUuid	String	The zone UUID	4.8.0
physicalInterface	String	The physical interface.	4.8.0
type	String	The resource type.	4.8.0
createDate	Timestamp	The creation date.	4.8.0
lastOpDate	Timestamp	The last operation date.	4.8.0

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUID.	4.8.0

SDK Sample

Java SDK

```
CreateL2HardwareVxlanNetworkAction action = new CreateL2HardwareVxlanNetworkAction();
action.vni = 10;
action.poolUuid = "772ca51845273486bd60aeb13c545050";
action.name = "Test-Net";
action.description = "Test";
action.zoneUuid = "79c1192d59303c218de085a48666cffa";
action.vSwitchType = "LinuxBridge";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateL2HardwareVxlanNetworkAction.Result res = action.call();
```

Python SDK

```
CreateL2HardwareVxlanNetworkAction action = CreateL2HardwareVxlanNetworkAction()
action.vni = 10
action.poolUuid = "772ca51845273486bd60aeb13c545050"
action.name = "Test-Net"
action.description = "Test"
action.zoneUuid = "79c1192d59303c218de085a48666cffa"
action.vSwitchType = "LinuxBridge"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateL2HardwareVxlanNetworkAction.Result res = action.call()
```

5.3.2.21 CreateL2HardwareVxlanNetworkPool

API Request

URLs

```
POST zstack/v1/l2-networks/hardware-vxlan-pool
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "sdnControllerUuid": "0b2231798a5c3971811ca4c9647776b8",
    "name": "Test-NetPool",
    "description": "Test",
    "zoneUuid": "0198cfa1482e31c2bc99512d1aa5b29b",
    "physicalInterface": "bond0",
```

```

    "vSwitchType": "LinuxBridge"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"sdnControllerUuid": "0b2231798a5c3971811ca4c9647776b8", "name": "Test -
NetPool", "description": "Test", "zoneUuid": "0198cfa1482e31c2bc99512d1aa5b29b", "phys
\
http://localhost:8080/zstack/v1/l2-networks/hardware-vxlan-pool

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sdnControllerUuid	String	body (contained in the params structure)	The SDN controller uuid.		4.8.0
name	String	body (contained in the params structure)	The resource name.		4.8.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.8.0
zoneUuid	String	body (contained in the params structure)	The zone UUID.		4.8.0
physicalInterface	String	body (contained in the params structure)	The physical interface.		4.8.0

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional. The resource type.		4.8.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.8.0
tagUuids	List	body (contained in the params structure)	Optional. The user tags list.		4.8.0
systemTags	List	body	Optional. The system tags.		4.8.0
userTags	List	body	Optional. The user tags.		4.8.0
vSwitchType	String	body (contained in the params structure)	Optional. The type of the vSwitch.	- LinuxBridge - OvsDpdk	4.8.0

API Response

Sample Response

```
{
  "inventory": {
    "sdnControllerUuid": "359216656f7f3f8681b76e52a0f11429",
    "name": "Test-NetPool",
    "description": "Test",
    "zoneUuid": "7d07d7a4ebfa340da32ac686f77edd4e",
    "type": "HardwareVxlanNetworkPool"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.8.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	HardwareL2 VxlanNetworkPoolInventory	See inventroy	4.8.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.8.0
description	String	The brief description of the error.	4.8.0
details	String	The details about the error.	4.8.0
elaboration	String	The reserved field. Default value: null.	4.8.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.8.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.8.0

#inventory

Name	Type	Description	Starting Version
sdnControllerUuid	String	The SDN controller UUID.	4.8.0
attachedCidrs	Map	The attached CIDR map.	4.8.0
uuid	String	The resource UUID.	4.8.0

Name	Type	Description	Starting Version
name	String	The resource name.	4.8.0
description	String	The detailed description of the resource.	4.8.0
zoneUuid	String	The zone UUID.	4.8.0
physicalInterface	String	The physical interface.	4.8.0
type	String	The resource UUID.	4.8.0
createDate	Timestamp	The creation date.	4.8.0
lastOpDate	Timestamp	The last operation date.	4.8.0
attachedClusterUuids	List	The attached cluster UUID.	4.8.0
attachedVtepRefs	List	See attachedVtepRefs	4.8.0
attachedVxlanNetworkRefs	List	See attachedVxlanNetworkRefs	4.8.0
attachedVniRanges	List	See #attachedVniRanges	4.8.0

#attachedVtepRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.8.0
hostUuid	String	The host UUID	4.8.0
vtepIp	String	The VTEP IP address.	4.8.0
port	Integer	The port number.	4.8.0
type	String	The resource type.	4.8.0
createDate	Timestamp	The creation date.	4.8.0
lastOpDate	Timestamp	The last operation date.	4.8.0
poolUuid	String	The resource pool UUID.	4.8.0

#attachedVxlanNetworkRefs

Name	Type	Description	Starting Version
vni	Integer	The VNI number.	4.8.0
poolUuid	String	The resource pool UUID.	4.8.0
uuid	String	The resource UUID.	4.8.0
name	String	The resource name.	4.8.0
description	String	The detailed description of the resource.	4.8.0
zoneUuid	String	The zone UUID.	4.8.0
physicalInterface	String	The physical interface.	4.8.0
type	String	The resource type.	4.8.0
createDate	Timestamp	The creation date.	4.8.0
lastOpDate	Timestamp	The last operation date.	4.8.0
attachedClusterUuids	List	The attached cluster UUID.	4.8.0

#attachedVniRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.8.0
name	String	The resource name.	4.8.0
description	String	The detailed description of the resource.	4.8.0
startVni	Integer		4.8.0
endVni	Integer		4.8.0
createDate	Timestamp	The creation date.	4.8.0
lastOpDate	Timestamp	The last operation date.	4.8.0
l2NetworkUuid	String	The L2 network UUID	4.8.0

SDK Sample

Java SDK

```
CreateL2HardwareVxlanNetworkPoolAction action = new CreateL2HardwareVxlanNetworkPoolAction();
action.sdnControllerUuid = "0b2231798a5c3971811ca4c9647776b8";
action.name = "Test-NetPool";
action.description = "Test";
action.zoneUuid = "0198cfa1482e31c2bc99512d1aa5b29b";
action.physicalInterface = "bond0";
action.vSwitchType = "LinuxBridge";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateL2HardwareVxlanNetworkPoolAction.Result res = action.call();
```

Python SDK

```
CreateL2HardwareVxlanNetworkPoolAction action = CreateL2HardwareVxlanNetworkPoolAction()
action.sdnControllerUuid = "0b2231798a5c3971811ca4c9647776b8"
action.name = "Test-NetPool"
action.description = "Test"
action.zoneUuid = "0198cfa1482e31c2bc99512d1aa5b29b"
action.physicalInterface = "bond0"
action.vSwitchType = "LinuxBridge"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateL2HardwareVxlanNetworkPoolAction.Result res = action.call()
```

5.3.2.22 GetVSwitchTypes

API Request

URLs

```
GET zstack//v1/l2-networks/vSwitchTypes
```

Headers

```
OAuth: the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l2-networks/vSwitchTypes?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.8.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		4.8.0

API Response

Sample Response

```
{
  "vSwitchTypes": [
    "LinuxBridge",
    "OVSDPDK"
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.8.0
types	List		4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.8.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.8.0
description	String	The brief description of the error.	4.8.0
details	String	The details about the error.	4.8.0
elaboration	String	The reserved field. Default value: null.	4.8.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.8.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.8.0

SDK Sample

Java SDK

```
GetVSwitchTypesAction action = new GetVSwitchTypesAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVSwitchTypesAction.Result res = action.call();
```

Python SDK

```
GetVSwitchTypesAction action = GetVSwitchTypesAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVSwitchTypesAction.Result res = action.call()
```

5.3.3 L3 Network Operations

5.3.3.1 CreateL3Network

API Request

URLs

```
POST zstack/v1/l3-networks
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-L3Network",
    "type": "L3BasicNetwork",
    "l2NetworkUuid": "bb059728e72f3ff1b3ae2fc9caba3dce",
    "category": "Private",
    "system": false,
    "enableIPAM": true
  },
}
```

```
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-
L3Network","type":"L3BasicNetwork","l2NetworkUuid":"bb059728e72f3ff1b3ae2fc9caba3
\
http://localhost:8080/zstack/v1/l3-networks
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The L3 network name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the L3 network.		0.6
type	String	body (contained in the params structure)	Optional. The L3 network type.	- L3BasicNetwork - L3VpcNetwork	0.6
l2NetworkUuid	String	body (contained in the params structure)	The L2 network UUID.		0.6
ipVersion	String	body (contained in the params structure)	Optional. The IP version.	4 6	4.6.21

Name	Type	Location	Description	Optional Value	Starting Version
system	boolean	body (contained in the params structure)	Optional. Whether the L3 network can be applied to appliance VM instances.		0.6
dnsDomain	String	body (contained in the params structure)	Optional. The DNS domain.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the L3 network will use the specified value as UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
category	String	body (contained in the params structure)	Optional. The network type, which must be used with the system tags. If system is set to false, this parameter can be set to Public or Private.	• Public • Private • System	2.2
tagUuids	List	body (contained in the params structure)	The tag UUID list.		4.6.21

Name	Type	Location	Description	Optional Value	Starting Version
enableIPAM	Boolean	body(contained in the params structure)	Whether to enable the IP address management.		4.6.21

**Note:**

- When you create an L3 network in ZStack Cloud, you can specify the port mirroring network by adding the **mirrorNetwork** option to **SystemTags**.
 - Format of the **mirrorNetwork** option: `mirrorNetwork:: {L3NetworkV0Uuid}`
 - Example: `mirrorNetwork::1c707a63817b4f29b1235fa1f76c0ccc`

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-L3Network",
    "l2NetworkUuid": "1bfca1892b674df28d26d9a3c0f609f9",
    "category": "Private"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L3NetworkInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String	The L3 network type.	0.6
zoneUuid	String	The zone UUID.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6
state	String	The state of the L3 network.	0.6
dnsDomain	String	The DNS domain.	0.6
system	Boolean	Whether the L3 network can be applied to appliance VM instances.	0.6
category	String	The network type, which must be used	0.6

Name	Type	Description	Starting Version
		with the system tags. If system is set to true, this parameter can be set to Public or Private.	
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
dns	List	The DNS server.	0.6
ipRanges	List	See ipRanges .	0.6
networkServices	List	See networkServices .	0.6
hostRoute	List	See hostRoute .	2.3

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6
ipRangeType	IpRangeType	See ipRangeType .	4.6.21

#ipRangeType

Name	Type	Description	Starting Version
Normal	IpRangeType	Normal IP range.	4.6.21
AddressPool	IpRangeType	IP range pool.	4.6.21

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nextHop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
CreateL3NetworkAction action = new CreateL3NetworkAction();
action.name = "Test-L3Network";
action.type = "L3BasicNetwork";
action.l2NetworkUuid = "bb059728e72f3ff1b3ae2fc9caba3dce";
action.category = "Private";
action.system = false;
```



```
action.enableIPAM = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateL3NetworkAction.Result res = action.call();
```

Python SDK

```
CreateL3NetworkAction action = CreateL3NetworkAction()
action.name = "Test-L3Network"
action.type = "L3BasicNetwork"
action.l2NetworkUuid = "bb059728e72f3ff1b3ae2fc9caba3dce"
action.category = "Private"
action.system = false
action.enableIPAM = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateL3NetworkAction.Result res = action.call()
```

5.3.3.2 DeleteL3Network

API Request

URLs

```
DELETE zstack/v1/l3-networks/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 9e78fa4cfc8a49baadb763cd62ac6a3f" \
-X DELETE http://localhost:8080/zstack/v1/l3-
networks/76490f9cd26d4c8a9501cc5a5312aa99?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteL3NetworkAction action = new DeleteL3NetworkAction();
action.uuid = "c19ee03770c6486b85abc58ea10f017a";
action.deleteMode = "Permissive";
action.sessionId = "b8b93037f8064e219bdcbe9dd9a9f366";
DeleteL3NetworkAction.Result res = action.call();
```

Python SDK

```
DeleteL3NetworkAction action = DeleteL3NetworkAction()
action.uuid = "8c4a39676be64072b20e7b7dc4b0ccc7"
action.deleteMode = "Permissive"
action.sessionId = "e0e4140009fc4b95af7197bffc64f7c0"
DeleteL3NetworkAction.Result res = action.call()
```

5.3.3.3 QueryL3Network

API Request

URLs

```
GET zstack/v1/l3-networks
GET zstack/v1/l3-networks/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 98858a4b613f46a4815c34c1c930b34e" \
-X GET http://localhost:8080/zstack/v1/l3-networks
```



Note:

For example, query the private L3 network.

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 98858a4b613f46a4815c34c1c930b34e" \
-X GET http://localhost:8080/zstack/v1/l3-networks?q=category=Private
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth c1148725103644bc8e2879d72fa47389" \
-X GET http://localhost:8080/zstack/v1/l3-networks/9d119c003bb54d4781443bbc7febcd7f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryL3Network`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "Test-L3Network",
      "l2NetworkUuid": "8bcf5b824378406494d81ffdae56bde3"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String	The L3 network type.	0.6
zoneUuid	String	The zone UUID.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6
state	String	The state of the L3 network.	0.6
dnsDomain	String	The DNS domain.	0.6
system	Boolean	Whether the L3 network can be applied to appliance VM instances.	0.6
category	String	The network type, which must be used with the system tags. If system is set to	0.6

Name	Type	Description	Starting Version
		true, this parameter can be set to Public or Private.	
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
dns	List	The DNS server.	0.6
ipRanges	List	See ipRanges .	0.6
networkServices	List	See networkServices .	0.6
hostRoute	List	See hostRoute .	2.3

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nextHop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
QueryL3NetworkAction action = new QueryL3NetworkAction();
action.conditions = asList();
action.sessionId = "58f4bcc9b20f46bfaba379ca0c739535";
QueryL3NetworkAction.Result res = action.call();
```

Python SDK

```
QueryL3NetworkAction action = QueryL3NetworkAction()
action.conditions = []
action.sessionId = "2f99e245b0f04712941da401ecab7173"
```

```
QueryL3NetworkAction.Result res = action.call()
```

5.3.3.4 UpdateL3Network

API Request

URLs

```
PUT zstack/v1/l3-networks/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateL3Network": {
    "name": "Test-L3Network"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateL3Network":{"name":"Test-L3Network"}}' \
http://localhost:8080/zstack/v1/l3-networks/
a1a3a4bea5e73628b591081fde9f019a/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateL3Ne	Optional. The L3 network name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		work structure)			
description	String	body (contained in the updateL3Network structure)	Optional. The detailed description of the L3 network .		0.6
system	Boolean	body (contained in the updateL3Network structure)	Optional. Whether the L3 network can be applied to appliance VM instances.		0.6
dnsDomain	String	body (contained in the updateL3Network structure)	Optional. The DNS domain.		2.6.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
category	String	body (contained in the updateL3Network structure)	Optional. The network type, which must be used with the system tags. If system is set to true, this parameter can be set to Public or Private.	• Public • Private • System	2.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "dd370da0d6fa49288fc119b35db36b7c",
    "name": "Test-L3Network"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L3NetworkInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String		0.6
zoneUuid	String	The zone UUID.	0.6
l2NetworkUuid	String	The L2 network UUID	0.6
state	String		0.6
dnsDomain	String		0.6
system	Boolean		0.6
category	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
dns	List		0.6
ipRanges	List	See ipRanges .	0.6
networkServices	List	See networkServices .	0.6
hostRoute	List	See hostRoute .	2.3

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6

Name	Type	Description	Starting Version
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nexthop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
UpdateL3NetworkAction action = new UpdateL3NetworkAction();
action.uuid = "88d2a1d687974c0ea0e102c276739e39";
```

```
action.name = "Test-L3Network";  
action.sessionId = "dae0914beced4293bd336fe443ed0d2b";  
UpdateL3NetworkAction.Result res = action.call();
```

Python SDK

```
UpdateL3NetworkAction action = UpdateL3NetworkAction()  
action.uuid = "3210b12187464e35bfdc50d8d4e2d1d0"  
action.name = "Test-L3Network"  
action.sessionId = "9e0b1d4240ef4421804612b01c98d7b8"  
UpdateL3NetworkAction.Result res = action.call()
```

5.3.3.5 GetL3NetworkTypes

API Request

URLs

```
GET zstack/v1/l3-networks/types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth 3a142b201e9342abbb5864a0ea48992e" \  
-X GET http://localhost:8080/zstack/v1/l3-networks/types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{  
  "l3NetworkTypes": [  
    "L3BasicNetwork"  
  ]  
}
```

}

Name	Type	Description	Starting Version
types	List		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetL3NetworkTypesAction action = new GetL3NetworkTypesAction();
action.sessionId = "9105437ebb27461fbae36ecb93336ceba";
```

```
GetL3NetworkTypesAction.Result res = action.call();
```

Python SDK

```
GetL3NetworkTypesAction action = GetL3NetworkTypesAction()
action.sessionId = "a69bae9c3cad4209b042956b23c70af7"
GetL3NetworkTypesAction.Result res = action.call()
```

5.3.3.6 ChangeL3NetworkState

API Request

URLs

```
PUT zstack/v1/l3-networks/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeL3NetworkState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeL3NetworkState":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/l3-networks/
a8744f1ba60c33f3a2c912c077f41fe5/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
stateEvent	String	body (contained in the changeL3NetworkState structure)	The state. Options: enable and disable .	- enable - disable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-L3Network",
    "l2NetworkUuid": "dfae4bce43694f4d9fc0ba5cdf4e38bd"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L3NetworkInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String		0.6
zoneUuid	String	The zone UUID.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6
state	String		0.6
dnsDomain	String		0.6
system	Boolean		0.6
category	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
dns	List		0.6
ipRanges	List	See ipRanges .	0.6
networkServices	List	See networkServices .	0.6
hostRoute	List	See hostRoute .	2.3

#ipRange

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3

Name	Type	Description	Starting Version
nextHop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
ChangeL3NetworkStateAction action = new ChangeL3NetworkStateAction();
action.uuid = "eb0849bf0e57400da650a09f2e852260";
action.stateEvent = "enable";
action.sessionId = "be8ec965ebd94169ba713c42dc079af9";
ChangeL3NetworkStateAction.Result res = action.call();
```

Python SDK

```
ChangeL3NetworkStateAction action = ChangeL3NetworkStateAction()
action.uuid = "d8a1565df89748a2a21ef87b9c9f5be7"
action.stateEvent = "enable"
action.sessionId = "7b8417b9ee3b4df8a21acc8e7c41a7f9"
ChangeL3NetworkStateAction.Result res = action.call()
```

5.3.3.7 GetL3NetworkDhcpIpAddress

API Request

URLs

```
GET zstack/v1/l3-networks/{l3NetworkUuid}/dhcp-ip
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-networks/82cae6542d3b3e7ea50dab8681f3785c/dhcp-ip
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "ip": "192.168.100.3"
}
```

Name	Type	Description	Starting Version
ip	String	The IP address.	0.6
ip6	String	The IPv6 address.	3.10.0
success	boolean	Whether the API succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetL3NetworkDhcpIpAddressAction action = new GetL3NetworkDhcpIpAddressAction();
action.l3NetworkUuid = "1c311c313859434f8586d4288a31952e";
action.sessionId = "dd1a8993de0e41e18d8718ea2e2d8259";
GetL3NetworkDhcpIpAddressAction.Result res = action.call();
```

Python SDK

```
GetL3NetworkDhcpIpAddressAction action = GetL3NetworkDhcpIpAddressAction();
action.l3NetworkUuid = "4970a85c53a24e35a55f44830058e719"
action.sessionId = "50fd78e250d94c5d944a5fa1a5d6bde0"
GetL3NetworkDhcpIpAddressAction.Result res = action.call()
```

5.3.3.8 AddDnsToL3Network

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/dns
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
```

```

"params": {
  "dns": "8.8.8.8"
},
"systemTags": [],
"userTags": []
}

```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"dns":"8.8.8.8"}}' \
http://localhost:8080/zstack/v1/l3-
networks/0b8da8c298ed3960925abbcc4f913da8/dns

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		0.6
dns	String	url	The DNS address.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```

{
  "inventory": {
    "name": "Test-L3Network",
    "l2NetworkUuid": "08f7b0b577a84c28968ddce5a9377c5d",
    "dns": [
      "8.8.8.8"
    ]
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

Name	Type	Description	Starting Version
inventory	L3NetworkInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String		0.6
zoneUuid	String	The zone UUID.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6

Name	Type	Description	Starting Version
state	String		0.6
dnsDomain	String		0.6
system	Boolean		0.6
category	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
dns	List		0.6
ipRanges	List	See ipRanges .	0.6
networkServices	List	See networkServices .	0.6
hostRoute	List	See hostRoute .	2.3

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nextHop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
AddDnsToL3NetworkAction action = new AddDnsToL3NetworkAction();
action.l3NetworkUuid = "80bfa9b9c4534a2593fcda534ee6414f";
action.dns = "8.8.8.8";
action.sessionId = "0a24af3791134b81bba960844b3aa899";
AddDnsToL3NetworkAction.Result res = action.call();
```

Python SDK

```
AddDnsToL3NetworkAction action = AddDnsToL3NetworkAction()
action.l3NetworkUuid = "17ecd7a47dc34f1ba01df5180480e264"
action.dns = "8.8.8.8"
action.sessionId = "30e00bf1296244cd98c93dec6182ab72"
```



```
AddDnsToL3NetworkAction.Result res = action.call()
```

5.3.3.9 RemoveDnsFromL3Network

API Request

URLs

```
DELETE/v1/l3-networks/{l3NetworkUuid}/dns/{dns}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 209fa412351946a6bef267d423f4e53c" \
-X DELETE http://localhost:8080/zstack/v1/l3-networks/
d96f7d4c0506435a9a1aa7394976c0b2/dns/8.8.4.4?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		0.6
dns	String	url	The DNS address.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-L3Network",
    "l2NetworkUuid": "535aea9c1be24fb9b172fa1955341685",
    "dns": []
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L3NetworkInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
type	String		0.6
zoneUuid	String	The zone UUID.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6
state	String		0.6
dnsDomain	String		0.6
system	Boolean		0.6
category	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
dns	List		0.6
ipRanges	List	See ipRanges .	0.6
networkServices	List	See networkServices .	0.6
hostRoute	List	See hostRoute .	2.3

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6

Name	Type	Description	Starting Version
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nextHop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
RemoveDnsFromL3NetworkAction action = new RemoveDnsFromL3NetworkAction();  
action.l3NetworkUuid = "3e9227b9ecbd42bba0f3a4620f5655d2";  
action.dns = "8.8.4.4";  
action.sessionId = "f3e42d2a37ed4c42a6ce7d192af94e05";
```

```
RemoveDnsFromL3NetworkAction.Result res = action.call();
```

Python SDK

```
RemoveDnsFromL3NetworkAction action = RemoveDnsFromL3NetworkAction()
action.l3NetworkUuid = "4046beb7d6164cb3843fb5fac2f86ac3"
action.dns = "8.8.4.4"
action.sessionId = "e9fd57376378422e9b58ada9be59185c"
RemoveDnsFromL3NetworkAction.Result res = action.call()
```

5.3.3.10 AddHostRouteToL3Network

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/hostroute
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "prefix": "169.254.169.254/32",
    "nexthop": "192.168.1.254"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"prefix":"169.254.169.254/32","nexthop":"192.168.1.254"}}' \
http://localhost:8080/zstack/v1/l3-
networks/45d86c07f10437c6bf3161bae9974bb7/hostroute
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		2.3
prefix	String	body (contained in the params structure)			2.3
nexthop	String	body (contained in the params structure)			2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-L3Network",
    "l2NetworkUuid": "7dfdf976ef1334fba5c3b475104011b2",
    "dns": [
      "8.8.8.8"
    ],
    "hostRoute": [
      {
        "prefix": "169.254.169.254/32",
        "nexthop": "192.168.1.254"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	L3NetworkInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String		0.6
zoneUuid	String	The zone UUID.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6
state	String		0.6
dnsDomain	String		0.6
system	Boolean		0.6

Name	Type	Description	Starting Version
category	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
dns	List		0.6
ipRanges	List	See ipRanges .	0.6
networkServices	List	See networkServices .	0.6
hostRoute	List	See hostRoute .	2.3

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nexthop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
AddHostRouteToL3NetworkAction action = new AddHostRouteToL3NetworkAction();
action.l3NetworkUuid = "45d86c07f10437c6bf3161bae9974bb7";
action.prefix = "169.254.169.254/32";
action.nexthop = "192.168.1.254";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddHostRouteToL3NetworkAction.Result res = action.call();
```

Python SDK

```
AddHostRouteToL3NetworkAction action = AddHostRouteToL3NetworkAction()
action.l3NetworkUuid = "45d86c07f10437c6bf3161bae9974bb7"
action.prefix = "169.254.169.254/32"
action.nexthop = "192.168.1.254"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddHostRouteToL3NetworkAction.Result res = action.call()
```

5.3.3.11 RemoveHostRouteFromL3Network

API Request

URLs

```
DELETE zstack/v1/l3-networks/{l3NetworkUuid}/hostroute?prefix={prefix}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/l3-
networks/8648a70a245232c5a1bee9ae408419e5/hostroute?
prefix=169.254.169.254/32
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		2.3
prefix	String	body			2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-L3Network",
    "l2NetworkUuid": "15e1e6a016f43a5688ca3d3445076309",
    "dns": []
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	L3NetworkInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
type	String		0.6
zoneUuid	String	The zone UUID.	0.6
l2NetworkUuid	String	The L2 network UUID.	0.6
state	String		0.6
dnsDomain	String		0.6
system	Boolean		0.6
category	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
dns	List		0.6
ipRanges	List	See ipRanges .	0.6
networkServices	List	See networkServices .	0.6
hostRoute	List	See hostRoute .	2.3

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
gateway	String		0.6
networkCidr	String		0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nextHop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
RemoveHostRouteFromL3NetworkAction action = new RemoveHostRouteFromL3NetworkAction();
action.l3NetworkUuid = "8648a70a245232c5a1bee9ae408419e5";
action.prefix = "169.254.169.254/32";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveHostRouteFromL3NetworkAction.Result res = action.call();
```

Python SDK

```
RemoveHostRouteFromL3NetworkAction action = RemoveHostRouteFromL3NetworkAction()
action.l3NetworkUuid = "8648a70a245232c5a1bee9ae408419e5"
action.prefix = "169.254.169.254/32"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveHostRouteFromL3NetworkAction.Result res = action.call()
```

5.3.3.12 GetFreelp

API Request

URLs

```
GET zstack/v1/l3-networks/ip/free
```

```
GET zstack/v1/l3-networks/{l3NetworkUuid}/ip/free
```

```
GET zstack/v1/l3-networks/ip-ranges/{ipRangeUuid}/ip/free
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-networks/ip/free?
l3NetworkUuid=c8cd63a1882331a9a5ee83e5d9b265ec&ipRangeUuid=10fc8508fd723e63bcc57b
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-
networks/c8cd63a1882331a9a5ee83e5d9b265ec/ip/free?
l3NetworkUuid=c8cd63a1882331a9a5ee83e5d9b265ec&ipRangeUuid=10fc8508fd723e63bcc57b
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-networks/
ip-ranges/10fc8508fd723e63bcc57b8bb6d7a133/ip/free?
l3NetworkUuid=c8cd63a1882331a9a5ee83e5d9b265ec&ipRangeUuid=10fc8508fd723e63bcc57b
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	query	Optional. The L3 network UUID.  Note: Make sure that at least one of		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			I3NetworkU uid and ipRangeUui d is not null.		
ipRangeUuid	String	query	Optional. The IP range UUID. Note: Make sure that at least one of I3NetworkU uid and ipRangeUui d is not null.		0.6
start	String	query	The start value.		0.6
ipRangeType	String	query	Optional. The IP range type.	• Normal • AddressPool	3.9.0
ipVersion	Integer	query	Optional. The IP version.	• 4 • 6	3.10.0
limit	int	query	Optional. The count limit.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
```

```

    "ipRangeUuid": "662d600a4b644f98a0c49df2e5430d69",
    "ip": "10.20.10.5",
    "netmask": "255.255.255.0",
    "gateway": "10.20.10.1"
  },
  {
    "ipRangeUuid": "662d600a4b644f98a0c49df2e5430d69",
    "ip": "10.20.10.6",
    "netmask": "255.255.255.0",
    "gateway": "10.20.10.1"
  },
  {
    "ipRangeUuid": "662d600a4b644f98a0c49df2e5430d69",
    "ip": "10.20.10.10",
    "netmask": "255.255.255.0",
    "gateway": "10.20.10.1"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	L3NetworkInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
ipRangeUuid	String	The IP range UUID.	0.6
ip	String		0.6
netmask	String		0.6
gateway	String		0.6

SDK Sample

Java SDK

```
GetFreeIpAction action = new GetFreeIpAction();
action.l3NetworkUuid = "c8cd63a1882331a9a5ee83e5d9b265ec";
action.ipRangeUuid = "10fc8508fd723e63bcc57b8bb6d7a133";
action.limit = 100.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetFreeIpAction.Result res = action.call();
```

Python SDK

```
GetFreeIpAction action = GetFreeIpAction()
action.l3NetworkUuid = "c8cd63a1882331a9a5ee83e5d9b265ec"
action.ipRangeUuid = "10fc8508fd723e63bcc57b8bb6d7a133"
action.limit = 100.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetFreeIpAction.Result res = action.call()
```

5.3.3.13 CheckIpAvailability

API Request

URLs

```
GET zstack/v1/l3-networks/{l3NetworkUuid}/ip/{ip}/availability
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-
networks/44fc110c3d87326299b46975aacb1705/ip/192.168.10.100/
availability?arpCheck=false&ipRangeCheck=true
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		0.6
ip	String	url	The IP address.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6
arpCheck	Boolean	query	Optional. Use arping to check.		5.1.0
ipRangeCheck	Boolean	query	Optional . Check available IP address range in database.		5.1.0

API Response

Sample Response

```
{
  "available": true
}
```

Name	Type	Description	Starting Version
available	boolean	Whether the API is available.	0.6
reason	String	Reason	3.4
success	boolean	Whether the API succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current	0.6

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

SDK Sample

Java SDK

```
CheckIpAvailabilityAction action = new CheckIpAvailabilityAction();
action.l3NetworkUuid = "44fc110c3d87326299b46975aacb1705";
action.ip = "192.168.10.100";
action.arpCheck = false;
action.ipRangeCheck = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckIpAvailabilityAction.Result res = action.call();
```

Python SDK

```
CheckIpAvailabilityAction action = CheckIpAvailabilityAction()
action.l3NetworkUuid = "44fc110c3d87326299b46975aacb1705"
action.ip = "192.168.10.100"
action.arpCheck = false
action.ipRangeCheck = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CheckIpAvailabilityAction.Result res = action.call()
```

5.3.3.14 GetIpAddressCapacity

API Request

URLs

```
GET zstack/v1/ip-capacity
```

Headers

```
Authorization: OAuth the-session-uuid s
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/ip-capacity?
ipRangeUuids=6bf57331ebe433389c6c230153ac5d8d&all=false
```

Request Parameters

Name	Type	Location	Description	Starting Version
zoneUuids	List	query	Optional. The zone UUIDs.	0.6
l3NetworkUuids	List	query	Optional. The L3 network UUIDs.	0.6
ipRangeUuids	List	query	Optional. The IP range UUIDs.	0.6
all	boolean	query	Optional. Global settings.	0.6
systemTags	List	query	Optional. The system tags.	0.6
userTags	List	query	Optional. The user tags.	0.6

API Response

Sample Response

```
{
  "totalCapacity": 20.0,
  "availableCapacity": 15.0,
  "usedIpAddressNumber": 5.0,
  "ipv4TotalCapacity": 0.0,
  "ipv4AvailableCapacity": 0.0,
  "ipv4UsedIpAddressNumber": 0.0,
  "ipv6TotalCapacity": 0.0,
  "ipv6AvailableCapacity": 0.0,
  "ipv6UsedIpAddressNumber": 0.0,
  "capacityData": [
    {
      "resourceUuid": "68b9a1c74c4c33c7b818e4c14bdea0a7",
      "totalCapacity": 20.0,
      "availableCapacity": 15.0,
      "usedIpAddressNumber": 5.0,
      "ipv4TotalCapacity": 0.0,
      "ipv4AvailableCapacity": 0.0,
      "ipv4UsedIpAddressNumber": 0.0,
      "ipv6TotalCapacity": 0.0,
      "ipv6AvailableCapacity": 0.0,
      "ipv6UsedIpAddressNumber": 0.0
    }
  ],
  "resourceType": "L3NetworkV0"
}
```

Name	Type	Description	Starting Version
totalCapacity	long	The total IP capacity.	0.6

Name	Type	Description	Starting Version
availableCapacity	long	The available IP capacity.	0.6
usedIpAddressNumber	Long	The number of used IP addresses.	3.10.0
ipv4TotalCapacity	long	The IPv4 address capacity.	3.10.0
ipv4AvailableCapacity	long	The available IPv4 address capacity.	3.10.0
ipv4UsedIpAddressNumber	long	The number of used IPv4 addresses.	3.10.0
ipv6TotalCapacity	long	The IPv6 address capacity.	3.10.0
ipv6AvailableCapacity	long	The available IPv6 address capacity.	3.10.0
ipv6UsedIpAddressNumber	long	The number of used IPv6 addresses.	3.10.0
resourceType	String	The type of the queried resources, such as the IP range, L3 network, and zone.	3.9.0
success	boolean	Whether the API succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
capacityData	List	See capacityData .	3.9.0
error	ErrorCode	See error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#capacityData

Name	Type	Description	Starting Version
resourceUuid	String	The resource UUID.	3.9.0
totalCapacity	long	The total IP capacity.	3.9.0
availableCapacity	long	The available IP capacity.	3.9.0
usedIpAddressNumber	long	The number of used IP addresses.	3.9.0
ipv4TotalCapacity	long	The total IPv4 address capacity.	3.10.0
ipv4AvailableCapacity	long	The available IPv4 address capacity.	3.10.0
ipv4UsedIpAddressNumber	long	The used IPv4 address capacity.	3.10.0
ipv6TotalCapacity	long	The total IPv6 address capacity.	3.10.0

Name	Type	Description	Starting Version
ipv6AvailableCapacity	long	The available IPv6 address capacity.	3.10.0
ipv6UsedIpAddressNumber	long	The used IPv6 address capacity.	3.10.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetIpAddressCapacityAction action = new GetIpAddressCapacityAction();
action.ipRangeUuids = asList("454d69e78a7849b487ce2266c64cc6e0");
action.all = false;
action.sessionId = "58287d81bc0d441cac85579ed46cb4dd";
```



```
GetIpAddressCapacityAction.Result res = action.call();
```

Python SDK

```
GetIpAddressCapacityAction action = GetIpAddressCapacityAction()
action.ipRangeUuids = [2ef2089aa3ba4929bfde743c9d1cb674]
action.all = false
action.sessionId = "349872e1c8ad445bbc0b024ac6ac0fbb"
GetIpAddressCapacityAction.Result res = action.call()
```

5.3.3.15 AddIpRange

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/ip-ranges
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-IP-Range",
    "startIp": "192.168.100.10",
    "endIp": "192.168.100.250",
    "netmask": "255.255.255.0",
    "gateway": "192.168.100.1",
    "ipRangeType": "Normal"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-IP-Range","startIp":"192.168.100.10","endIp":"192.168.100.250","netmask":"255.255.255.0","gateway":"192.168.100.1","ipRangeType":"Normal"},"systemTags":[],"userTags":[]}' \
http://localhost:8080/zstack/v1/l3-networks/acc0573590db3297814610cab774b60b/ip-ranges
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		0.6
name	String	body (contained in the params structure)	The L3 network name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the L3 network.		0.6
startIp	String	body (contained in the params structure)	The start IP address.		0.6
endIp	String	body (contained in the params structure)	The end IP address.		0.6
netmask	String	body (contained in the params structure)	The netmask.		0.6
gateway	String	body (contained in the params structure)	The gateway.		0.6
ipRangeType	String	body (contained in the params structure)	Optional. The IP range type.	• Normal • AddressPool	3.9.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the L3 network will use the		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			specified value as UUID .		
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you add an IP range in ZStack Cloud, you can specify the DHCP server address by adding the **DhcpServer** option to **SystemTags**.
 - Format of the **DhcpServer** option: `flatNetwork::DhcpServer::{%s}::ipUuid::{%s}`
 - Example: `flatNetwork::DhcpServer::192.168.1.100::ipUuid::null`

API Response

Sample Response

```
{
  "inventory": {
    "l3NetworkUuid": "4cbec970df744e258726f71de79e6497",
    "name": "Test-IP-Range",
    "startIp": "192.168.100.10",
    "endIp": "192.168.100.250",
    "netmask": "255.255.255.0",
    "gateway": "192.168.100.1"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	IpRangeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6

Name	Type	Description	Starting Version
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
ipRangeType	IpRangeType	See ipRangeType .	3.9.0

#ipRangeType

Name	Type	Description	Starting Version
Normal	IpRangeType		3.9.0
AddressPool	IpRangeType		3.9.0

SDK Sample

Java SDK

```
AddIpRangeAction action = new AddIpRangeAction();
action.l3NetworkUuid = "acc0573590db3297814610cab774b60b";
action.name = "Test-IP-Range";
action.startIp = "192.168.100.10";
action.endIp = "192.168.100.250";
action.netmask = "255.255.255.0";
action.gateway = "192.168.100.1";
action.ipRangeType = "Normal";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddIpRangeAction.Result res = action.call();
```

Python SDK

```
AddIpRangeAction action = AddIpRangeAction()
action.l3NetworkUuid = "acc0573590db3297814610cab774b60b"
action.name = "Test-IP-Range"
action.startIp = "192.168.100.10"
action.endIp = "192.168.100.250"
action.netmask = "255.255.255.0"
action.gateway = "192.168.100.1"
action.ipRangeType = "Normal"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddIpRangeAction.Result res = action.call()
```

5.3.3.16 DeleteIpRange

API Request

URLs

```
DELETE/v1/l3-networks/ip-ranges/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 1872261fb9824d9f9dd73a991cf05a44" \
-X DELETE http://localhost:8080/zstack/v1/l3-networks/ip-ranges/
a2a9f85d22914afe95a195b63143830d?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the IP range.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteIpRangeAction action = new DeleteIpRangeAction();
action.uuid = "6d1f44d0fe1440189eb293f18d7bf682";
action.deleteMode = "Permissive";
action.sessionId = "4a3745cb42f5430f874c6f6c4b298e95";
DeleteIpRangeAction.Result res = action.call();
```

Python SDK

```
DeleteIpRangeAction action = DeleteIpRangeAction()
action.uuid = "0f1fcf2e779543baa416deb89eeeb2db"
action.deleteMode = "Permissive"
action.sessionId = "d07fb42a181d43dda2b6992536b02804"
DeleteIpRangeAction.Result res = action.call()
```

5.3.3.17 QueryIpRange

API Request

URLs

```
GET zstack/v1/l3-networks/ip-ranges
GET /v1/l3-networks/ip-ranges/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 8f7b1e0396c54646a4b37affdfdda079" \
-X GET http://localhost:8080/zstack/v1/l3-networks/ip-ranges?
q=uuid=887227aa5d5c49e2a8137b79dad3738a
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 60a5dfda1a9843809415eb28f2550f94" \
-X GET http://localhost:8080/zstack/v1/l3-networks/ip-
ranges/17684784fcc04571a47eb24dc2eb9638
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIpRange**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "l3NetworkUuid": "9a72daf0034443aa81864e593f0f5b32",
      "name": "Test-IPRange",
      "networkCidr": "192.168.10.0/24"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryIpRangeAction action = new QueryIpRangeAction();
action.conditions = asList("uuid=d5764d7ab9174e5486e55ba805d28675");
action.sessionId = "5357e54aa55a4846ac96972776d3100f";
QueryIpRangeAction.Result res = action.call();
```

Python SDK

```
QueryIpRangeAction action = QueryIpRangeAction()
action.conditions = ["uuid=2cda79a574344eeb9f38393253ddf858"]
action.sessionId = "c87d6755153549f6a4e7373b601ac99f"
```

```
QueryIpRangeAction.Result res = action.call()
```

5.3.3.18 UpdateIpRange

API Request

URLs

```
PUT zstack/v1/l3-networks/ip-ranges/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateIpRange": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateIpRange":{}}' \
http://localhost:8080/zstack/v1/l3-networks/ip-ranges/0ebb3eb1c1e134bea93c2f9ed2e2beef/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateIpRange structure)	Optional. The L3 network name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the updateIpRange structure)	Optional. The detailed description of the L3 network .		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "l3NetworkUuid": "f7f0ee7b4978413fa36c811e47dd56a3",
    "name": "Test-IPRange",
    "networkCidr": "192.168.10.0/24"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	IpRangeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateIpRangeAction action = new UpdateIpRangeAction();
action.uuid = "97054a54a1fc4b49ba3d7a5d44b9e385";
action.sessionId = "8644fd2755f148359edff9521b27868b";
UpdateIpRangeAction.Result res = action.call();
```

Python SDK

```
UpdateIpRangeAction action = UpdateIpRangeAction()
action.uuid = "2b4499297735445482dc994113574b41"
action.sessionId = "0a16c9ea3e6e4ad9b1ff71a826b67277"
UpdateIpRangeAction.Result res = action.call()
```

5.3.3.19 AddIpRangeByNetworkCidr

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/ip-ranges/by-cidr
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-IPRange",
    "networkCidr": "192.168.10.0/24",
    "ipRangeType": "Normal"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-IPRange","networkCidr":"192.168.10.0/24","ipRangeType":"Normal"}}'
http://localhost:8080/zstack/v1/l3-networks/c186887bc5e43da7ba42bd5d66eba0cd/ip-ranges/by-cidr
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The L3 network name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the L3 network.		0.6
l3NetworkUuid	String	url	The L3 network UUID.		0.6
networkCidr	String	body (contained in the params structure)	The network CIDR.		0.6
gateway	String	body (contained in the params structure)	Optional. The gateway.		3.7.0
ipRangeType	String	body (contained in the params structure)	Optional. The IP range type.	- Normal - AddressPool	3.9.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the L3 network will use the		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			specified value as UUID .		
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you add an IP range by specifying a network CIDR in ZStack Cloud, you can specify the DHCP server address by adding the **affinityGroup** option to **SystemTags**.
 - Format of the **affinityGroup** option: `flatNetwork::DhcpServer::{%s}::ipUuid::%s`
 - Example: `flatNetwork::DhcpServer::192.168.1.100::ipUuid::null`

API Response

Sample Response

```
{
  "inventory": {
    "l3NetworkUuid": "4e0926c4fa27455f88c7d94420bf3422",
    "name": "Test-IPRange",
    "networkCidr": "192.168.10.0/24"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	IpRangeInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
startIp	String		0.6
endIp	String		0.6
netmask	String		0.6
prefixLen	String	The prefix length.	3.1.0
gateway	String		0.6
networkCidr	String		0.6

Name	Type	Description	Starting Version
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
ipRangeType	IpRangeType	See ipRangeType .	3.9.0

#ipRangeType

Name	Type	Description	Starting Version
Normal	IpRangeType		3.9.0
AddressPool	IpRangeType		3.9.0

SDK Sample

Java SDK

```
AddIpRangeByNetworkCidrAction action = new AddIpRangeByNetworkCidrAction();
action.name = "Test-IPRange";
action.l3NetworkUuid = "c186887bc5e43da7ba42bd5d66eba0cd";
action.networkCidr = "192.168.10.0/24";
action.ipRangeType = "Normal";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddIpRangeByNetworkCidrAction.Result res = action.call();
```

Python SDK

```
AddIpRangeByNetworkCidrAction action = AddIpRangeByNetworkCidrAction()
action.name = "Test-IPRange"
action.l3NetworkUuid = "c186887bc5e43da7ba42bd5d66eba0cd"
action.networkCidr = "192.168.10.0/24"
action.ipRangeType = "Normal"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddIpRangeByNetworkCidrAction.Result res = action.call()
```

5.3.3.20 GetL3NetworkMtu

API Request

URLs

```
GET zstack/v1/l3-networks/{l3NetworkUuid}/mtu
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth dc112a530fd2402cae6b4962f65eae4e" \
-X GET http://localhost:8080/zstack/v1/l3-networks/
be54f79eb90f4f929da7fe64e1aea8e4/mtu
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		2.1
systemTags	List	query	Optional. The system tags.		2.1
userTags	List	query	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "mtu": 9216.0
}
```

Name	Type	Description	Starting Version
mtu	Integer		2.1
success	boolean		2.1
error	ErrorCode	The error code. If not null, the operation	2.1

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
error	ErrorCode	See error .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.1

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

SDK Sample

Java SDK

```
GetL3NetworkMtuAction action = new GetL3NetworkMtuAction();  
action.l3NetworkUuid = "fd8d572d777d4383b201ddfce629d50e";  
action.sessionId = "0cc5202de3ce4881a305e5fa1d431aaa";  
GetL3NetworkMtuAction.Result res = action.call();
```

Python SDK

```
GetL3NetworkMtuAction action = GetL3NetworkMtuAction()  
action.l3NetworkUuid = "7615cfd154a048dcab07a1114ee6205d"  
action.sessionId = "d0f3cf05a49345438a92108d2fd86cfe"
```

```
GetL3NetworkMtuAction.Result res = action.call()
```

5.3.3.21 SetL3NetworkMtu

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/mtu
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "mtu": 9216.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"mtu":9216.0}}' \
http://localhost:8080/zstack/v1/l3-networks/817672c1bb903264a9a41c34332c3145/mtu
```

Request

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		2.1
mtu	Integer	body (contained in the params structure)			2.1

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetL3NetworkMtuAction action = new SetL3NetworkMtuAction();
action.l3NetworkUuid = "b19ce058b0f54c6d83c14078c0079c2c";
action.mtu = 9216.0;
action.sessionId = "b441c616886c4183a51ba044e35c7d66";
SetL3NetworkMtuAction.Result res = action.call();
```

Python SDK

```
SetL3NetworkMtuAction action = SetL3NetworkMtuAction()
action.l3NetworkUuid = "67dc01887dfc4142aabe4221675c1b98"
action.mtu = 9216.0
action.sessionId = "d5188e0801994e3a9dfb3d3ebc2f7a39"
```

```
SetL3NetworkMtuAction.Result res = action.call()
```

5.3.3.22 GetL3NetworkRouterInterfaceIp

API Request

URLs

```
GET zstack/v1/l3-networks/{l3NetworkUuid}/router-interface-ip
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-
networks/71aa55703e063d9db0f13fa0b285a82b/router-interface-ip
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		2.2
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "routerInterfaceIp": "192.168.0.2"
}
```

Name	Type	Description	Starting Version
routerInterfaceIp	String	The IP address of the router on the L3 network. This parameter is valid only when a vRouter is	2.2

Name	Type	Description	Starting Version
		created on a common L3 network, or a VPC vRouter is attached to a VPC network.	
success	boolean		2.2
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetL3NetworkRouterInterfaceIpAction action = new GetL3NetworkRouterInterfaceIpAction();
action.l3NetworkUuid = "23453c09a0f534d5bb10a3267c09aac8";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetL3NetworkRouterInterfaceIpAction.Result res = action.call();
```

Python SDK

```
GetL3NetworkRouterInterfaceIpAction action = GetL3NetworkRouterInterfaceIpAction()
action.l3NetworkUuid = "5cece4a676083f6fa3491a068e3e34e6"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetL3NetworkRouterInterfaceIpAction.Result res = action.call()
```

5.3.3.23 SetL3NetworkRouterInterfaceIp

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/router-interface-ip
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "routerInterfaceIp": "192.168.10.2"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"routerInterfaceIp":"192.168.10.2"}}' \
```

```
http://localhost:8080/zstack/v1/l3-
networks/40124528890f368c8752825634144fd5/router-interface-ip
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		2.1
routerInterfaceIp	String	body (contained in the params structure)			2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetL3NetworkRouterInterfaceIpAction action = new SetL3NetworkRouterInterfaceIpAction();
action.l3NetworkUuid = "00ab12382f544de0ac71b48afe7ecd9c";
action.routerInterfaceIp = "192.168.10.2";
action.sessionId = "279a26540d254f42b7a2320652e6c64b";
SetL3NetworkRouterInterfaceIpAction.Result res = action.call();
```

Python SDK

```
SetL3NetworkRouterInterfaceIpAction action = SetL3NetworkRouterInterfaceIpAction()
action.l3NetworkUuid = "3558f265c4204eae93104e3ffa974661"
action.routerInterfaceIp = "192.168.10.2"
action.sessionId = "97c0fdecc551496d86b8861f045df21a"
```

```
SetL3NetworkRouterInterfaceIpAction.Result res = action.call()
```

5.3.3.24 AddIpv6Range

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/ipv6-ranges
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-IP-Range",
    "startIp": "2002:2001::02",
    "endIp": "2002:2001::FE",
    "gateway": "2002:2001::01",
    "prefixLen": 64,
    "addressMode": "Stateful-DHCP"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-IP-Range","startIp":"2002:2001::02","endIp":"2002:2001::FE","gateway":"2002:2001::01","prefixLen":64,"addressMode":"Stateful-DHCP"},"systemTags":[],"userTags":[]}' http://localhost:8080/zstack/v1/l3-networks/b6f82aa00c3f37adba4b349eb427db80/ipv6-ranges
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The L3 network name.		3.1.0
description	String	body (contained in the params structure)	The detailed description of the L3 network .		3.1.0
startIp	String	body (contained in the params structure)	The start IP address.		3.1.0
endIp	String	body (contained in the params structure)	The end IP address.		3.1.0
gateway	String	body (contained in the params structure)	The gateway.		3.1.0
prefixLen	Integer	body (contained in the params structure)	The prefix length.		3.1.0
addressMode	String	body (contained in the params structure)	The allocation mode of the IPv6 address.	• SLAAC • Stateful-DHCP • Stateless-DHCP	3.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the L3 network will use the specified		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
			value as UUID .		
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

**Note:**

- When you add an IPv6 range in ZStack Cloud, you can specify the DHCP server address by adding the **affinityGroup** option to **SystemTags**.
 - Format of the **affinityGroup** option: `flatNetwork::DhcpServer::{%s}::ipUuid::{%s}`
 - Example: `flatNetwork::DhcpServer::192.168.1.100::ipUuid::null`

API Response

Sample Response

```
{
  "inventory": {
    "l3NetworkUuid": "10d6128c8f473a63889597becc396bba",
    "name": "Test-IP-Range",
    "startIp": "2002:2001::02",
    "endIp": "2002:2001::FE",
    "netmask": "FFFF:FFFF:FFFF:FFFF:0:0:0:0",
    "prefixLen": "64",
    "gateway": "2002:2001::01"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	IpRangeInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
l3NetworkUuid	String	The L3 network UUID.	3.1.0
name	String	The resource name.	3.1.0
description	String	The detail description of the resource.	3.1.0
startIp	String		3.1.0
endIp	String		3.1.0
netmask	String		3.1.0
prefixLen	String	The prefix length.	3.1.0
gateway	String		3.1.0
networkCidr	String		3.1.0

Name	Type	Description	Starting Version
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
AddIpv6RangeAction action = new AddIpv6RangeAction();
action.l3NetworkUuid = "b6f82aa00c3f37adba4b349eb427db80";
action.name = "Test-IP-Range";
action.startIp = "2002:2001::02";
action.endIp = "2002:2001::FE";
action.gateway = "2002:2001::01";
action.prefixLen = 64;
action.addressMode = "Stateful-DHCP";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddIpv6RangeAction.Result res = action.call();
```

Python SDK

```
AddIpv6RangeAction action = AddIpv6RangeAction()
action.l3NetworkUuid = "b6f82aa00c3f37adba4b349eb427db80"
action.name = "Test-IP-Range"
action.startIp = "2002:2001::02"
action.endIp = "2002:2001::FE"
action.gateway = "2002:2001::01"
action.prefixLen = 64
action.addressMode = "Stateful-DHCP"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddIpv6RangeAction.Result res = action.call()
```

5.3.3.25 AddIpv6RangeByNetworkCidr

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/ipv6-ranges/by-cidr
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-IPRange",
    "networkCidr": "2002:2001::/64",
    "addressMode": "SLAAC"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-IPRange","networkCidr":"2002:2001::/64","addressMode":"SLAAC"}}'
http://localhost:8080/zstack/v1/l3-networks/92850b5a66633e2aa8c3a8ae6ebb541d/ipv6-ranges/by-cidr
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The L3 network name.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the L3 network.		3.1.0
l3NetworkUuid	String	url	The L3 network UUID.		3.1.0
networkCidr	String	body (contained in the params structure)	The network CIDR.		3.1.0
addressMode	String	body (contained in the params structure)	The allocation mode of the IPv6 address.	• SLAAC • Stateful-DHCP • Stateless-DHCP	3.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the L3 network will use the specified value as UUID.		3.1.0
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

**Note:**

- When you add an IPv6 range by specifying a network CIDR in ZStack Cloud, you can specify the DHCP server address by adding the **affinityGroup** option to **SystemTags**.
 - Format of the **affinityGroup** option: `flatNetwork::DhcpServer::{%s}::ipUuid::{%s}`

- Example: flatNetwork::DhcpServer::192.168.1.100::ipUuid::null

API Response

Sample Response

```
{
  "inventory": {
    "l3NetworkUuid": "6735b2c2bc0c345892b7d66b1616d909",
    "name": "Test-IPRange",
    "networkCidr": "2002:2001::/64"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventory	IpRangeInventory	See inventory .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.1.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
l3NetworkUuid	String	The L3 network UUID.	3.1.0
name	String	The resource name.	3.1.0
description	String	The detailed description of the resource.	3.1.0
startIp	String		3.1.0
endIp	String		3.1.0
netmask	String		3.1.0
prefixLen	String	The prefix length.	3.1.0
gateway	String		3.1.0
networkCidr	String		3.1.0
ipVersion	Integer	The IP version.	3.1.0
addressMode	String	The allocation mode of the IPv6 address.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
AddIpv6RangeByNetworkCidrAction action = new AddIpv6RangeByNetworkCidrAction();
action.name = "Test-IPRange";
action.l3NetworkUuid = "92850b5a66633e2aa8c3a8ae6ebb541d";
action.networkCidr = "2002:2001::/64";
action.addressMode = "SLAAC";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AddIpv6RangeByNetworkCidrAction.Result res = action.call();
```

Python SDK

```
AddIpv6RangeByNetworkCidrAction action = AddIpv6RangeByNetworkCidrAction()
action.name = "Test-IPRange"
action.l3NetworkUuid = "92850b5a66633e2aa8c3a8ae6ebb541d"
action.networkCidr = "2002:2001::/64"
action.addressMode = "SLAAC"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddIpv6RangeByNetworkCidrAction.Result res = action.call()
```

5.3.3.26 QueryIpAddress

API Request

URLs

```
GET zstack/v1/l3-networks/ip-address
GET zstack/v1/l3-networks/ip-address{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-networks/ip-address
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-networks/ip-address/87b2ab50f6c13ebb9dd73ca46bb22bc7
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryIpAddress`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "3ccfbfd6bd483a5eaeabed00b284f4fc",
      "ipRangeUuid": "1b3a29978ea73f0db4ce8d8c2d0bd479",
      "l3NetworkUuid": "c11b366475f836078e5aa86469de2eef",
      "ipVersion": 4.0,
      "ip": "192.168.1.100",
```

```

    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "ipInLong": 0.0,
    "vmNicUuid": "28e22f67b2893b208547333dfef7cfa8"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.1.0
inventories	List	See inventories .	3.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.0
description	String	The brief description of the error.	3.1.0
details	String	The details about the error.	3.1.0
elaboration	String	The reserved field. Default value: null.	3.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.1.0
ipRangeUuid	String	The IP range UUID.	3.1.0
l3NetworkUuid	String	The L3 network UUID.	3.1.0
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	3.1.0
netmask	String	The netmask.	3.1.0
gateway	String	The gateway.	3.1.0
usedFor	String		3.1.0
ipInLong	long		3.1.0
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0

SDK Sample

Java SDK

```
QueryIpAddressAction action = new QueryIpAddressAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryIpAddressAction.Result res = action.call();
```

Python SDK

```
QueryIpAddressAction action = QueryIpAddressAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryIpAddressAction.Result res = action.call()
```

5.3.3.27 GetL3NetworkIpStatistic

API Request

URLs

```
GET zstack/v1/l3-networks/{l3NetworkUuid}/ip-statistic
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-
networks/9bdd769f3e603f65bd368512ebe8b998/ip-statistic?
resourceType=All&sortBy=Ip&sortDirection=asc&start=0.0&limit=20.0&replyWithCount=
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		3.7.0
resourceType	String	query	Optional. The resource type.	- All - Vip - VM	3.7.0
ip	String	query	Optional. The specified IP address.		3.7.0
sortBy	String	query	Optional. The sort method.	- Ip - CreateDate	3.7.0
sortDirection	String	query	Optional. The sort direction.	- asc - desc	3.7.0
start	Integer	query	Optional. The location where the statistics starts.		3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
limit	Integer	query	Optional. The count of the statistics.		3.7.0
replyWithCount	boolean	query	Optional. Whether to return both the statistics result and count.		3.7.0
systemTags	List	query	Optional. The system tags.		3.7.0
userTags	List	query	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "ipStatistics": [
    {
      "ip": "192.168.0.1",
      "resourceTypes": [
        "Other"
      ]
    }
  ],
  "total": 1.0
}
```

Name	Type	Description	Starting Version
total	Long	The total statistics of the IP addresses.	3.7.0
success	boolean	Whether the API succeeds.	3.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
ipStatistics	List	See ipStatistics .	3.7.0

Name	Type	Description	Starting Version
error	ErrorCode	See error .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#ipStatistics

Name	Type	Description	Starting Version
ip	String	The IP address.	3.7.0
vipUuid	String	The VIP UUID.	3.7.0
vipName	String	The VIP name.	3.7.0
vmInstanceUuid	String	The VM instance UUID.	3.7.0
vmInstanceName	String	The VM instance name.	3.7.0
vmInstanceType	String	The VM instance type.	3.7.0

Name	Type	Description	Starting Version
vmDefaultIp	String	The default IP address of the VM instance.	3.7.0
resourceTypes	List	The types of resources to which the IP address binds.	3.7.0
state	String	The resource state.	3.7.0
useFor	String	The network service to which the IP address binds.	3.7.0
createDate	Timestamp	The creation date.	3.7.0
ownerName	String	The name of the resource owner.	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

SDK Sample

Java SDK

```

GetL3NetworkIpStatisticAction action = new GetL3NetworkIpStatisticAction();
action.l3NetworkUuid = "9bdd769f3e603f65bd368512ebe8b998";
action.resourceType = "All";
action.sortBy = "Ip";
action.sortDirection = "asc";
action.start = 0.0;
action.limit = 20.0;
action.replyWithCount = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetL3NetworkIpStatisticAction.Result res = action.call();

```

Python SDK

```

GetL3NetworkIpStatisticAction action = GetL3NetworkIpStatisticAction()
action.l3NetworkUuid = "9bdd769f3e603f65bd368512ebe8b998"
action.resourceType = "All"
action.sortBy = "Ip"
action.sortDirection = "asc"
action.start = 0.0
action.limit = 20.0
action.replyWithCount = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetL3NetworkIpStatisticAction.Result res = action.call()

```

5.3.3.28 QueryAddressPool

API Request

URLs

```
GET zstack/v1/l3-networks/address-pools
```

```
GET zstack/v1/l3-networks/address-pools/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/l3-networks/address-pools?
q=uuid=a73cf6bc10a0390bb5e461d9f5e3fd6d

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \

```

```
-X GET http://localhost:8080/zstack/v1/l3-networks/address-pools/  
f45cb0f9098336a39662b7553f42deb5
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAddressPool**, and pressing the **Tab** key.

API Response

Sample Response

```
{  
  "inventories": [  
    {  
      "l3NetworkUuid": "81ce7828f3f63c0ea8a69dd9139bdaa0",  
      "name": "Test-IPRange",  
      "networkCidr": "192.168.10.0/24",  
      "ipRangeType": "AddressPool"  
    }  
  ]  
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventories	List	See inventories .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
l3NetworkUuid	String	The L3 network UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
startIp	String	The start IP address.	3.9.0
endIp	String	The end IP address.	3.9.0
netmask	String	The netmask.	3.9.0
gateway	String	The gateway.	3.9.0
networkCidr	String	The network CIDR.	3.9.0
ipVersion	Integer	The IP version.	3.9.0
addressMode	String	The allocation mode of the IPv6 address.	3.9.0
prefixLen	Integer	The prefix length.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
ipRangeType	IpRangeType	See ipRangeType .	3.9.0

#ipRangeType

Name	Type	Description	Starting Version
Normal	IpRangeType	The normal IP range.	3.9.0
AddressPool	IpRangeType	The IP address pool.	3.9.0

SDK Sample

Java SDK

```
QueryAddressPoolAction action = new QueryAddressPoolAction();
action.conditions = asList("uuid=4cbab87c862032f1a161bebe7e1f55a1");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAddressPoolAction.Result res = action.call();
```

Python SDK

```
QueryAddressPoolAction action = QueryAddressPoolAction()
action.conditions = ["uuid=455d45fad9893eba9565de38588c7416"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryAddressPoolAction.Result res = action.call()
```

5.3.3.29 AddReservedIpRange

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/reserved-ip-ranges
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "startIp": "192.168.100.10",
    "endIp": "192.168.100.250"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"startIp": "192.168.100.10", "endIp": "192.168.100.250"}}' \
http://localhost:8080/zstack/v1/l3-networks/
dc9fb647bbd73a768da652b6cd100495/reserved-ip-ranges
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		5.1.0
startIp	String	body (contained in the params structure)	The start IP address.		5.1.0
endIp	String	body (contained in the params structure)	The end IP address.		5.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		5.1.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "inventory": {
    "l3NetworkUuid": "9bb0926251903385928489eba7388cd4",
    "name": "Test-IP-Range",
```

```

    "startIp": "192.168.100.10",
    "endIp": "192.168.100.250"
  }
}

```

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventory	ReservedIp RangeInventory	See inventory	5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detail description of the resource.	5.1.0
startIp	String	The start IP address.	5.1.0
endIp	String	The end IP address.	5.1.0
ipVersion	Integer	The IP version.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
AddReservedIpRangeAction action = new AddReservedIpRangeAction();
action.l3NetworkUuid = "dc9fb647bbd73a768da652b6cd100495";
action.startIp = "192.168.100.10";
action.endIp = "192.168.100.250";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddReservedIpRangeAction.Result res = action.call();
```

Python SDK

```
AddReservedIpRangeAction action = AddReservedIpRangeAction()
action.l3NetworkUuid = "dc9fb647bbd73a768da652b6cd100495"
action.startIp = "192.168.100.10"
action.endIp = "192.168.100.250"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddReservedIpRangeAction.Result res = action.call()
```

5.3.3.30 DeleteReservedIpRange

API Request

URLs

```
DELETE zstack/v1/l3-networks/reserved-ip-ranges/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/l3-networks/reserved-ip-ranges/c01027fecc013c338e25d67581eed865
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.1.0
deleteMode	String	body	Optional. The delete mode . (Permissive / Enforcing, Permissive)		5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
}
```

SDK Sample

Java SDK

```
DeleteReservedIpRangeAction action = new DeleteReservedIpRangeAction
();
action.uuid = "c01027fecc013c338e25d67581eed865";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteReservedIpRangeAction.Result res = action.call();
```

Python SDK

```
DeleteReservedIpRangeAction action = DeleteReservedIpRangeAction()
action.uuid = "c01027fecc013c338e25d67581eed865"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteReservedIpRangeAction.Result res = action.call()
```

5.3.3.31 ChangeL3NetworkDhcpIpAddress

API Request

URLs

```
PUT zstack/v1/l3-networks/{l3NetworkUuid}/dhcp-ip
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeL3NetworkDhcpIpAddress": {
    "dhcpServerIp": "192.168.1.100",
    "dhcpv6ServerIp": "2024:04:28:01::100"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeL3NetworkDhcpIpAddress":
{"dhcpServerIp":"192.168.1.100", "dhcpv6ServerIp":"2024:04:28:01::100"}}'
http://localhost:8080/zstack/v1/l3-
networks/6b693b00316b30819bb30bfe0df10256/dhcp-ip
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		5.1.0
dhcpServerIp	String	body (contained in the changeL3NetworkDhcpIpAddress structure)	Optional. The IPv4 address of the DHCP server.		5.1.0
dhcpv6ServerIp	String	body (contained in the changeL3NetworkDhcpIpAddress structure)	Optional. The IPv6 address of the DHCP server.		5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "dhcpServerIp": "192.168.100.3",
  "dhcpv6ServerIp": "2024:04:28:01::100"
}
```

Name	Type	Description	Starting Version
dhcpServerIp	String		5.1.0
dhcpv6ServerIp	String		5.1.0

Name	Type	Description	Starting Version
success	boolean		5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```

ChangeL3NetworkDhcpIpAddressAction action = new ChangeL3NetworkDhcpIpAddressAction();
action.l3NetworkUuid = "6b693b00316b30819bb30bfe0df10256";
action.dhcpServerIp = "192.168.1.100";
action.dhcpv6ServerIp = "2024:04:28:01::100";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
ChangeL3NetworkDhcpIpAddressAction.Result res = action.call();
```

Python SDK

```
ChangeL3NetworkDhcpIpAddressAction action = ChangeL3NetworkDhcpI
pAddressAction()
action.l3NetworkUuid = "6b693b00316b30819bb30bfe0df10256"
action.dhcpServerIp = "192.168.1.100"
action.dhcpv6ServerIp = "2024:04:28:01::100"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeL3NetworkDhcpIpAddressAction.Result res = action.call()
```

5.3.3.32 DeletelpAddress

API Request

URLs

```
DELETE zstack/v1/l3-networks/{l3NetworkUuid}/ip-address
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/l3-networks/
b6e5c225bf553bc8bd5a5fcf3fac9fa3/ip-address
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		5.1.0
usedIpUuids	List	body	The UUID of the deleted IP address.		5.1.0
deleteMode	String	body	Optional. The delete mode . (Permissive / Enforcing, Permissive)		5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		5.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteIpAddressAction action = new DeleteIpAddressAction();
action.l3NetworkUuid = "b6e5c225bf553bc8bd5a5fcf3fac9fa3";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteIpAddressAction.Result res = action.call();
```

Python SDK

```
DeleteIpAddressAction action = DeleteIpAddressAction()
action.l3NetworkUuid = "b6e5c225bf553bc8bd5a5fcf3fac9fa3"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteIpAddressAction.Result res = action.call()
```

5.3.4 Route Resource Operations

5.3.4.1 ReconnectVirtualRouter

API Request

URLs

```
PUT zstack/v1/vm-instances/appliances/virtual-routers/
{vmInstanceId}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectVirtualRouter": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth bd24a72b74a148e8b18ee2b2367534d6" \
-X PUT -d '{"reconnectVirtualRouter":{}}' \
http://localhost:8080/zstack/v1/vm-instances/appliances/virtual-
routers/74f9bb00796c366a83a6201df9e26f43/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceId	String	url	The VM instance UUID		0.6
systemTags	List	body	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "managementNetworkUuid": "9a154450da784a418db5406a463d2235",
    "name": "Test-Router",
    "description": "this is a virtual router vm",
    "clusterUuid": "9b359b8de95d4d97a19d53bf4193993a",
    "imageUuid": "c7bbef849e5d47478ee1db445d55530b",
    "instanceOfferingUuid": "5437f63807864c37b4d3042ee28f2680"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	ApplianceVmInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
applianceVmType	String		0.6
managementNetworkUuid	String		0.6
defaultRouteL3NetworkUuid	String		0.6
status	String		0.6
agentPort	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6

Name	Type	Description	Starting Version
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
ReconnectVirtualRouterAction action = new ReconnectVirtualRouterAction();
action.vmInstanceUuid = "3b20e87b87b442518efff8744c2cfde8";
action.sessionId = "ce03736cdddf4c49bce35d8e55e189c7";
ReconnectVirtualRouterAction.Result res = action.call();
```

Python SDK

```
ReconnectVirtualRouterAction action = ReconnectVirtualRouterAction()
```

```
action.vmInstanceUuid = "ae937aa909594b1bb2e36359cd7dbc5b"
action.sessionId = "4434d7282a7d4940bb0695c0d252bfae"
ReconnectVirtualRouterAction.Result res = action.call()
```

5.3.4.2 QueryVirtualRouterVm

API Request

URLs

```
GET zstack/v1/vm-instances/appliances/virtual-routers
GET zstack/v1/vm-instances/appliances/virtual-routers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 823cd67ecc7c4e6fa25efbc7f9b5130b" \
-X GET http://localhost:8080/zstack/v1/vm-instances/appliances/
virtual-routers?q=name=Test-Router
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 5b8a868c89ef434086caeb6ade4613bf" \
-X GET http://localhost:8080/zstack/v1/vm-instances/appliances/
virtual-routers/a1f8c5edc13743d79ec8c9d912d1c280
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVirtualRouterVm`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "eb4c132875424e19aa200c5685f7d9ca",
      "name": "Test-VM",
      "description": "Appliance VM",
      "zoneUuid": "453595b58b1f407aa8b551c279738191",
      "clusterUuid": "bc24a488a7c740ef828839d6624b15a2",
      "imageUuid": "729f3c664fb14ffa8886cbf5d14bec47",
      "hostUuid": "bdd8a04c22b6482287a2ac071319f59d",
      "lastHostUuid": "bc6337a5a73142c8afbc4108f69595cf",
      "instanceOfferingUuid": "5beedb45ba9547a4a154c747c69c38bd",
      "rootVolumeUuid": "b07d68c5879b49a680f6fc375d06603f",
      "platform": "Linux",
      "defaultL3NetworkUuid": "dfd914d7f33a434a880fd0cd29db1ad1",
      "type": "UserVm",
      "hypervisorType": "KVM",
```

```

"memorySize": 8.589934592E9,
"cpuNum": 1.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Jun 7, 2017 9:21:17 PM",
"lastOpDate": "Jun 7, 2017 9:21:17 PM",
"state": "Running",
"vmNics": [
  {
    "uuid": "ba1a965bee39412c962735987da7722a",
    "vmInstanceUuid": "eb4c132875424e19aa200c5685f7d9ca",
    "usedIpUuid": "7250d89102a44251aa49a5bcf093d484",
    "l3NetworkUuid": "dfd914d7f33a434a880fd0cd29db1ad1",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Jun 7, 2017 9:21:17 PM",
    "lastOpDate": "Jun 7, 2017 9:21:17 PM"
  }
],
"allVolumes": [
  {
    "uuid": "b07d68c5879b49a680f6fc375d06603f",
    "name": "Root-Volume-For-VM-eb4c132875424e19aa200c5685f7d9ca",
    "primaryStorageUuid": "f82bd3273e1a42a7bc53f1d098d07c63",
    "vmInstanceUuid": "eb4c132875424e19aa200c5685f7d9ca",
    "diskOfferingUuid": "71a6bbc236974c188ad258875a0cc837",
    "rootImageUuid": "729f3c664fb14ffa8886cbf5d14bec47",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-b07d68c5879b49a680f6fc375d06603f/b07d68c5879b49a680f6fc375d06603f.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Jun 7, 2017 9:21:17 PM",
    "lastOpDate": "Jun 7, 2017 9:21:17 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
applianceVmType	String		0.6
managementNetworkUuid	String		0.6
defaultRouteL3NetworkUuid	String		0.6
status	String		0.6
agentPort	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6

Name	Type	Description	Starting Version
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6

Name	Type	Description	Starting Version
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
QueryVirtualRouterVmAction action = new QueryVirtualRouterVmAction();
action.conditions = asList("name=Test-Router");
action.sessionId = "f25578538ecf4a55b98d51e5b8788adb";
QueryVirtualRouterVmAction.Result res = action.call();
```

Python SDK

```
QueryVirtualRouterVmAction action = QueryVirtualRouterVmAction()
action.conditions = ["name=Test-Router"]
action.sessionId = "d1cd40ad61f149689bb358c997377d4a"
QueryVirtualRouterVmAction.Result res = action.call()
```

5.3.4.3 QueryApplianceVm

API Request

URLs

```
GET zstack/v1/vm-instances/appliances
GET zstack/v1/vm-instances/appliances/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth fee14fed21eb4535bcd2fd6a11fa9dcd" \
-X GET http://localhost:8080/zstack/v1/vm-instances/appliances?
q=uuid=59b2f0ff7d3e49faab66fdb4bdfce249
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth f11e69b5788b458e8149425132902365" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
appliances/5eaf0998a54345e5bb25bfdad34b2b31
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryApplianceVm`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "f71a399a79794ab8a41e26a601ac7387",
      "name": "Test-VM",
      "description": "Appliance VM",
      "zoneUuid": "4cf173a14e67440c9349c1e236a56c37",
      "clusterUuid": "07412e72791c474fa240b75da1b210c5",
      "imageUuid": "7bc33ed9760f424a9b9ff21fc0bbb48e",
      "hostUuid": "0cbed62c52bc407e994c966f246363bd",
      "lastHostUuid": "08921382c4f44705bae7cba6414c811d",
      "instanceOfferingUuid": "e056c84995cb4d68ac78dbcc30af3f4f",
      "rootVolumeUuid": "2557a6f997ee457fad526e179a76e8c0",
      "platform": "Linux",
      "defaultL3NetworkUuid": "748fc87b7fcb456cbea47432e52b377d",
      "type": "UserVm",
      "hypervisorType": "KVM",
      "memorySize": 8.589934592E9,
      "cpuNum": 1.0,
      "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
      "createDate": "Jun 7, 2017 9:20:39 PM",
      "lastOpDate": "Jun 7, 2017 9:20:39 PM",
      "state": "Running",
      "vmNics": [
        {
          "uuid": "d2dfc67ddf28431bb64cc90fe0e113f6",
          "vmInstanceUuid": "f71a399a79794ab8a41e26a601ac7387",
          "usedIpUuid": "f654374b78534f5fb9b75873084932a3",
          "l3NetworkUuid": "748fc87b7fcb456cbea47432e52b377d",
          "ip": "192.168.1.10",
          "mac": "00:0c:29:bd:99:fc",
          "netmask": "255.255.255.0",
          "gateway": "192.168.1.1",
          "deviceId": 0.0,
          "createDate": "Jun 7, 2017 9:20:39 PM",
          "lastOpDate": "Jun 7, 2017 9:20:39 PM"
        }
      ],
      "allVolumes": [
        {
          "uuid": "2557a6f997ee457fad526e179a76e8c0",
          "name": "Root-Volume-For-VM-f71a399a79794ab8a41e26a601ac7387",
          "primaryStorageUuid": "d00057b39df9494bbaf00d047dd04825",
          "vmInstanceUuid": "f71a399a79794ab8a41e26a601ac7387",
          "diskOfferingUuid": "20346d1b6643492fbc4da8d6baf4b6d2",
          "rootImageUuid": "7bc33ed9760f424a9b9ff21fc0bbb48e",
          "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-2557a6f997ee457fad526e179a76e8c0/2557a6f997ee457fad526e179a76e8c0.qcow2",
          "type": "Root",
          "format": "qcow2",
          "size": 1.073741824E11,
          "actualSize": 2.147483648E10,
          "deviceId": 0.0,
          "state": "Enabled",
          "status": "Ready",
          "createDate": "Jun 7, 2017 9:20:39 PM",

```

```
"lastOpDate": "Jun 7, 2017 9:20:39 PM"
  }
}
]
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
applianceVmType	String		0.6
managementNetworkUuid	String		0.6
defaultRouteL3NetworkUuid	String		0.6
status	String		0.6
agentPort	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
state	String		0.6
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6

Name	Type	Description	Starting Version
diskOfferingUuid	String	The disk offering UUID	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
QueryApplianceVmAction action = new QueryApplianceVmAction();
action.conditions = asList("uuid=691c9a2eb7964cdd8cfad52a4acece7b");
action.sessionId = "9fec03d462184d6b9a87d314c00597ed";
QueryApplianceVmAction.Result res = action.call();
```

Python SDK

```
QueryApplianceVmAction action = QueryApplianceVmAction()
action.conditions = ["uuid=0c17514849ac49809d6e6047fc4b4978"]
action.sessionId = "485840ed54bc40cc9e47feabd0475ae7"
```

```
QueryApplianceVmAction.Result res = action.call()
```

5.3.4.4 CreateVirtualRouterOffering

API Request

URLs

```
POST zstack/v1/instance-offerings/virtual-routers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "zoneUuid": "b2826f6c4a5b433b87916e2240132ffa",
    "managementNetworkUuid": "2f8e7e8636db4313b735edddc488a961",
    "imageUuid": "bc78c126c6a94ee3aec0c840b50730a7",
    "publicNetworkUuid": "95c8cc36b34e4ad89d0eb9b0b6ee02e6",
    "isDefault": true,
    "name": "VirtualRouter-Offering",
    "cpuNum": 2.0,
    "memorySize": 1024.0,
    "sortKey": 0.0,
    "type": "VirtualRouter"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth bca83008f4154b488a8167f021144e4d" \
-X POST -d '{"params":
{"zoneUuid":"a0f488a96504388cae48c6c489c5f368","managementNetworkUuid":"3f5412e1a
Offering","cpuNum":2.0,"memorySize":1024.0,"sortKey":0.0,"type":"VirtualRouter"}}' \
http://localhost:8080/zstack/v1/instance-offerings/virtual-routers
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
zoneUuid	String	body (contained in the params structure)	The zone UUID.		0.6
managementNetworkUuid	String	body (contained in the params structure)	The L3 management network UUID.		0.6
imageUuid	String	body (contained in the params structure)	The image UUID.		0.6
publicNetworkUuid	String	body (contained in the params structure)	Optional. The L3 public network UUID.		0.6
isDefault	Boolean	body (contained in the params structure)	Optional. Whether the vRouter offering is the default offering.		0.6
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
cpuNum	int	body (contained in the params structure)	The CPU count.		0.6
memorySize	long	body (contained in	The memory size.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
allocatorStrategy	String	body (contained in the params structure)	Optional. The allocator strategy.	- DefaultHostAllocatorStrategy - LastHostPreferredAllocatorStrategy - LeastVmPreferredHostAllocatorStrategy - MinimumCPUUsageHostAllocatorStrategy - MinimumMemoryUsageHostAllocatorStrategy - MaxInstancePerHostHostAllocatorStrategy	0.6
sortKey	int	body (contained in the params structure)	Optional. The sort key.		0.6
type	String	body (contained in the params structure)	Optional. The type.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "db5bb944a9ef48eda9ff68d3eaedefed",
    "name": "instanceOffering1",
    "cpuNum": 2.0,
    "cpuSpeed": 1.0,
    "type": "UserVm",
    "allocatorStrategy": "Mevoco",
    "createDate": "Jun 7, 2017 9:20:13 PM",
    "lastOpDate": "Jun 7, 2017 9:20:13 PM",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	InstanceOfferingInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
cpuNum	Integer	The CPU count.	0.6
cpuSpeed	Integer	The CPU speed.	0.6
memorySize	Long	The memory size.	0.6
type	String	The type.	0.6
allocatorStrategy	String	The allocator strategy.	0.6
sortKey	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String	The state, including Enabled and Disabled.	0.6

SDK Sample

Java SDK

```
CreateVirtualRouterOfferingAction action = new CreateVirtualRouterOfferingAction();
action.zoneUuid = "389c6a48c332450ea280933b34e61ac4";
action.managementNetworkUuid = "381c2166c0454d95aed829715ae294b8";
action.imageUuid = "a4da1399797145bc87e36b424e5336af";
action.publicNetworkUuid = "5bf6caac74304a489eda76ae64624f6b";
action.isDefault = true;
action.name = "VirtualRouter-Offering";
action.cpuNum = 2.0;
action.memorySize = 1024.0;
action.sortKey = 0.0;
action.type = "VirtualRouter";
action.sessionId = "b811bf42d0b541ea993787b1fa80e724";
CreateVirtualRouterOfferingAction.Result res = action.call();
```

Python SDK

```
CreateVirtualRouterOfferingAction action = CreateVirtualRouterOfferingAction()
action.zoneUuid = "d115bed650ad45128aff5216c9f72d23"
action.managementNetworkUuid = "1b4f915b327d488db04c517b767e2731"
action.imageUuid = "737992cde79646ce915681b74e4c4de7"
action.publicNetworkUuid = "6af154a9cd274134ac44d2d889474158"
action.isDefault = true
action.name = "VirtualRouter-Offering"
action.cpuNum = 2.0
action.memorySize = 1024.0
action.sortKey = 0.0
action.type = "VirtualRouter"
action.sessionId = "71db629e6f484b3187c48ecb1d65dcea"
CreateVirtualRouterOfferingAction.Result res = action.call()
```

5.3.4.5 QueryVirtualRouterOffering

API Request

URLs

```
GET zstack/v1/instance-offerings/virtual-routers
GET zstack/v1/instance-offerings/virtual-routers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 94af029a0bed40d68dbabeff17f22add" \
```

```
-X GET http://localhost:8080/zstack/v1/instance-offerings/virtual-routers
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth db0361e95b29493db9bc03cd35db6129" \
-X GET http://localhost:8080/zstack/v1/instance-offerings/virtual-routers/e422506307254250b817c4f7aa70f277
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVirtualRouterOffering`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "managementNetworkUuid": "6d5e54344898416c9a20a104341c82d5",
      "publicNetworkUuid": "c6a23a0ed6ad4337a35d8a946694f8ea",
      "zoneUuid": "a12ffae2039847a8b9046478ad03fec",
      "isDefault": true,
      "imageUuid": "ca56a16b15bb47c0a26055e28d1e621f",
      "name": "VirtualRouter-Offering",
      "cpuNum": 2.0,
      "cpuSpeed": 1.0,
      "memorySize": 1024.0,
      "type": "VirtualRouter"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
managementNetworkUuid	String		0.6
publicNetworkUuid	String		0.6
zoneUuid	String	The zone UUID.	0.6
isDefault	Boolean		0.6
imageUuid	String	The image UUID.	0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
cpuNum	Integer		0.6
cpuSpeed	Integer		0.6
memorySize	Long		0.6
type	String		0.6

Name	Type	Description	Starting Version
allocatorStrategy	String		0.6
sortKey	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6

SDK Sample

Java SDK

```
QueryVirtualRouterOfferingAction action = new QueryVirtualRouterOf  
feringAction();  
action.conditions = asList();  
action.sessionId = "8779bc03a81d463bbebee36eedcc8197";  
QueryVirtualRouterOfferingAction.Result res = action.call();
```

Python SDK

```
QueryVirtualRouterOfferingAction action = QueryVirtualRouterOf  
feringAction()  
action.conditions = []  
action.sessionId = "ec9a74a6c42241fb95575a9ba79c6fa6"  
QueryVirtualRouterOfferingAction.Result res = action.call()
```

5.3.4.6 UpdateVirtualRouterOffering

API Request

URLs

```
PUT zstack/v1/instance-offerings/virtual-routers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "updateVirtualRouterOffering": {  
    "isDefault": false  
  },  
  "systemTags": [],  
  "userTags": []  
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVirtualRouterOffering":{"isDefault":false}}' \
http://localhost:8080/zstack/v1/instance-offerings/virtual-
routers/46a68145223e3c4fb25b5de2b12e43c2/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
isDefault	Boolean	body (contained in the updateVirtualRouterOffering structure)	Optional. Whether the vRouter offering is the default offering.		0.6
imageUuid	String	body (contained in the updateVirtualRouterOffering structure)	Optional. The image UUID.		0.6
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateVirtualRouterOffering structure)	Optional. The resource name.		0.6
description	String	body (contained	Optional. The detailed		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		in the updateVirtualRouterOffering structure)	description of the resource.		
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
allocatorStrategy	String	body (contained in the updateVirtualRouterOffering structure)	Optional. The allocator strategy.	- DefaultHostAllocatorStrategy - LastHostPreferredAllocatorStrategy - LeastVmPreferredHostAllocatorStrategy - MinimumCPUUsageHostAllocatorStrategy - MinimumMemoryUsageHostAllocatorStrategy - MaxInstancePerHostHostAllocatorStrategy	2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "99395ef3a9083f7ba2d64201d6afc6b0",
```

```

    "name": "instanceOffering1",
    "cpuNum": 2.0,
    "cpuSpeed": 1.0,
    "type": "UserVm",
    "allocatorStrategy": "Mevoco",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Enabled"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	InstanceOfferingInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
cpuNum	Integer	The CPU count.	0.6
cpuSpeed	Integer	The CPU speed.	0.6
memorySize	Long	The memory size.	0.6
type	String	The type.	0.6
allocatorStrategy	String	The allocator strategy.	0.6
sortKey	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String	The state, including Enabled and Disabled.	0.6

SDK Sample

Java SDK

```
UpdateVirtualRouterOfferingAction action = new UpdateVirtualRouterOfferingAction();
action.isDefault = false;
action.uuid = "46a68145223e3c4fb25b5de2b12e43c2";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVirtualRouterOfferingAction.Result res = action.call();
```

Python SDK

```
UpdateVirtualRouterOfferingAction action = UpdateVirtualRouterOfferingAction()
action.isDefault = False
action.uuid = "46a68145223e3c4fb25b5de2b12e43c2"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateVirtualRouterOfferingAction.Result res = action.call()
```

5.3.4.7 GetAttachablePublicL3ForVRouter

API Request

URLs

```
GET zstack/v1/vm-instances/appliances/virtual-routers/
{vmInstanceId}/attachable-public-l3s
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 15085fa6b94f46c1bd4bb4f6b69aa092" \
-X GET http://localhost:8080/zstack/v1/vm-instances/appliances/
virtual-routers/ac547d8a596c45ca864cd53235499c18/attachable-public-l3s
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceId	String	url	The vRouter UUID.		2.2
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "03108cd5c1c9427ea954fe35e8ae6811",
      "name": "test-pub-l3",
      "description": "test pub l3",
      "zoneUuid": "a18dc0e9dc054349af6adeda2efd17f0",
      "l2NetworkUuid": "e1791fb069554a69b05caf77d6d900a7",
      "system": true,
      "createDate": "Sep 29, 2017 2:41:24 PM",
      "lastOpDate": "Sep 29, 2017 2:41:24 PM",
      "ipRanges": [
        {
```

```

    "l3NetworkUuid": "3c26ee27f6e549b9974535ab1e04ad33",
    "name": "test ip range",
    "startIp": "100.64.0.10",
    "endIp": "100.64.0.100",
    "netmask": "255.255.255.0",
    "gateway": "100.64.0.1",
    "networkCidr": "100.64.0.0/24",
    "createDate": "Sep 29, 2017 2:41:24 PM",
    "lastOpDate": "Sep 29, 2017 2:41:24 PM"
  }
}
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventories	List	See inventories .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.2

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2
type	String		2.2
zoneUuid	String	The zone UUID.	2.2
l2NetworkUuid	String	The L2 network UUID.	2.2
state	String		2.2
dnsDomain	String		2.2
system	Boolean		2.2
category	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2
dns	List		2.2
ipRanges	List	See ipRanges .	2.2
networkServices	List	See networkServices .	2.2
hostRoute	List	See hostRoute .	2.3

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.2
l3NetworkUuid	String	The L3 network UUID.	2.2
name	String	The resource name.	2.2
description	String	The detailed description of the resource.	2.2

Name	Type	Description	Starting Version
startIp	String		2.2
endIp	String		2.2
netmask	String		2.2
gateway	String		2.2
networkCidr	String		2.2
createDate	Timestamp	The creation date.	2.2
lastOpDate	Timestamp	The last operation date.	2.2

#networkServices

Name	Type	Description	Starting Version
I3NetworkUuid	String	The L3 network UUID.	2.2
networkServiceProviderUuid	String	The network service provider UUID.	2.2
networkServiceType	String		2.2

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
I3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nextHop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
GetAttachablePublicL3ForVRouterAction action = new GetAttachablePublicL3ForVRouterAction();
action.vmInstanceUuid = "851b21ed7425479daf3783b886f6ab35";
action.sessionId = "8f1a0a142f514a49849df351c40d6116";
```



```
GetAttachablePublicL3ForVRouterAction.Result res = action.call();
```

Python SDK

```
GetAttachablePublicL3ForVRouterAction action = GetAttachablePublicL3ForVRouterAction()
action.vmInstanceUuid = "f78e670c912447b68dcae9a6af79617c"
action.sessionId = "99e6b06b41ff4d16bb2c2b11e4e3a7bb"
GetAttachablePublicL3ForVRouterAction.Result res = action.call()
```

5.3.4.8 vRouter Route Table Operations

5.3.4.8.1 CreateVRouterRouteTable

API Request

URLs

```
POST zstack/v1/vrouter-route-tables
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-VRouterRouteTable",
    "description": "Test-VRouterRouteTable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-VRouterRouteTable","description":"Test-VRouterRouteTable"}}' \
http://localhost:8080/zstack/v1/vrouter-route-tables
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.1
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.1
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-route-table",
    "description": "Test route table",
    "attachedRouterRefs": [],
    "routeEntries": []
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventory	VRouterRouteTableInventory	See inventory .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
name	String	The resource name.	2.1
description	String	The detailed description of the resource.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
attachedRouterRefs	List	See attachedRouterRefs .	2.1
routeEntries	List	See routeEntries .	2.1

#attachedRouterRefs

Name	Type	Description	Starting Version
virtualRouterVmUuid	String		2.1
routeTableUuid	String		2.1

#routeEntries

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
description	String	The detailed description of the resource.	2.1
type	String	The type. You can add two types of routes: static route and black hole route . The system will automatically determine the type by judging whether to enter the next hop.	2.1
routeTableUuid	String	The vRouter route table UUID.	2.1
destination	String	The destination network address.	2.1
target	String	The next hop address. The IP address that can be accessed directly by vRouter VM instances. If the IP address cannot be accessed directly, the route recursion will be triggered.	2.1
distance	Integer	The route priority. In the minimum match mode, if multiple route	2.1

Name	Type	Description	Starting Version
		rules are available, the rule with the lowest integer has the highest priority to be matched.	
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1

SDK Sample

Java SDK

```
CreateVRouterRouteTableAction action = new CreateVRouterRouteTableAction();
action.name = "Test-VRouterRouteTable";
action.description = "Test-VRouterRouteTable";
action.sessionId = "36ae8b4476774bbd819b694d466f5351";
CreateVRouterRouteTableAction.Result res = action.call();
```

Python SDK

```
CreateVRouterRouteTableAction action = CreateVRouterRouteTableAction()
action.name = "Test-VRouterRouteTable"
action.description = "Test-VRouterRouteTable"
action.sessionId = "c68d30a1ccc9487381ea5ec872cfcccd"
CreateVRouterRouteTableAction.Result res = action.call()
```

5.3.4.8.2 DeleteVRouterRouteTable

API Request

URLs

```
DELETE zstack/v1/vrouter-route-tables/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth c92c3c7cf7c64dac9e783ab3414e7901" \
-X DELETE http://localhost:8080/zstack/v1/vrouter-route-tables/865cd01ad01f4c46b0a63163eb13e20b?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1
deleteMode	String	url	Optional. The delete mode.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVRouterRouteTableAction action = new DeleteVRouterRouteTableAction();
action.uuid = "fb0b9186685544bcb5af032b1426736a";
action.deleteMode = "Permissive";
action.sessionId = "aa1c19e2398949c99132c47e97f11569";
DeleteVRouterRouteTableAction.Result res = action.call();
```

Python SDK

```
DeleteVRouterRouteTableAction action = DeleteVRouterRouteTableAction()
action.uuid = "dcf18f99774046de99d5791bfba27b35"
action.deleteMode = "Permissive"
action.sessionId = "c2345a70fb6b4ffabc717ca555e60782"
```

```
DeleteVRouterRouteTableAction.Result res = action.call()
```

5.3.4.8.3 QueryVRouterRouteTable

API Request

URLs

```
GET zstack/v1/vrouter-route-tables
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 48eaf58e3b6e4c51a56c8d9caa991311" \
-X GET http://localhost:8080/zstack/v1/vrouter-route-tables
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 20f83215e3bf491782fe7646a42b5c8b" \
-X GET http://localhost:8080/zstack/v1/vrouter-route-tables/3b8991d7295a4cccb08d028911a9164b
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVRouterRouteTable`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryVRouterRouteTableAction action = new QueryVRouterRouteTableAction
();
action.conditions = asList();
action.sessionId = "1e7d262944584f57a8908c9acd1ec62f";
```

```
QueryVRouterRouteTableAction.Result res = action.call();
```

Python SDK

```
QueryVRouterRouteTableAction action = QueryVRouterRouteTableAction()
action.conditions = []
action.sessionId = "6ad6d8b304984d3ba5b64ddd2062efcb"
QueryVRouterRouteTableAction.Result res = action.call()
```

5.3.4.8.4 GetVRouterRouteTable

API Request

URLs

```
GET zstack/v1/vrouter-route-tables/vrouter/{virtualRouterVmUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth ef1c95285ef3435c949854955edc6c66" \
-X GET http://localhost:8080/zstack/v1/vrouter-route-tables/
vrouter/27e810f019b74106877814ddb0c6e3bf
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
virtualRouterVmUuid	String	url	The VM instance UUID		2.1
systemTags	List	query	Optional. The system tags.		2.1
userTags	List	query	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "inventories": [
    {
      "type": "ZStack"
      "destination": "0.0.0.0/0"
    }
  ]
}
```



```

        "target": "100.64.201.1"
        "status": "selected"
    },
    {
        "uuid": "7b86eaba601c4ceda5987036c9ea7981"
        "type": "UserStatic"
        "destination": "100.64.0.0/24"
        "target": "100.64.201.10"
        "distance": "128"
        "status": "selected"
    },
    {
        "uuid": "d15ebfe03aec49e6a0453e74eede350d"
        "type": "UserStatic"
        "destination": "100.64.0.0/24"
        "target": "100.64.201.11"
        "distance": "128"
        "status": "active"
    },
    {
        "type": "ZStack"
        "destination": "10.0.57.94/32"
        "target": "eth0"
    },
    {
        "uuid": "50e6070313fa4a05b17907a32be0a63f"
        "type": "UserStatic"
        "destination": "10.0.57.94/32"
        "target": "100.64.201.12"
        "distance": "1"
        "status": "inactive"
    },
    {
        "type": "DirectConnect"
        "destination": "192.168.197.0/24"
        "target": "eth1"
        "status": "selected"
    },
    {
        "uuid": "6b446d5cf776471c913582ab30bd6340"
        "type": "DirectConnect"
        "destination": "192.168.197.0/24"
        "target": "100.64.201.13"
        "distance": "1"
        "status": "inactive"
    },
    {
        "uuid": "0aad7115c1f94aa1bf5db1a4d6d3fd17"
        "type": "UserBlackHole"
        "destination": "192.168.198.0/24"
        "distance": "1"
        "status": "selected"
    },
    ],
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	2.1

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventories	List	See inventories .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
description	String	The detailed description of the resource.	2.1
type	String	The type. The UserStatic and UserBlackHole types	2.1

Name	Type	Description	Starting Version
		can be added by users. The ZStack type is added by the system. The DirectConnect type means the directly connected route.	
destination	String	The destination network address.	2.1
target	String	The next hop address or NIC.	2.1
distance	Integer	The route priority. In the minimum match mode, if multiple route rules are available, the rule with the lowest integer has the highest priority to be matched.	2.1
status	String	The route status. Options: • active: active route • inactive: inactive route • selected: active route in the multi-path routes	2.1

SDK Sample

Java SDK

```
GetVRouterRouteTableAction action = new GetVRouterRouteTableAction();
action.virtualRouterVmUuid = "dfa2698bd9f04cd5be56e5b51826359d";
action.sessionId = "8fbf06a3245a42fc99ef63f618364de7";
GetVRouterRouteTableAction.Result res = action.call();
```

Python SDK

```
GetVRouterRouteTableAction action = GetVRouterRouteTableAction()
action.virtualRouterVmUuid = "1646d8ca4e144f63896c26488491e016"
action.sessionId = "161364959641477981aa68cd63b19348"
```

```
GetVRouterRouteTableAction.Result res = action.call()
```

5.3.4.8.5 AddVRouterRouteEntry

API Request

URLs

```
POST zstack/v1/vrouter-route-tables/{routeTableUuid}/route-entries
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "description": "Test route",
    "type": "UserStatic",
    "destination": "192.168.2.0/24",
    "target": "172.20.1.1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"description":"Test
route","type":"UserStatic","destination":"192.168.2.0/24","target":"172.20.1.1"}}' \
http://localhost:8080/zstack/v1/vrouter-route-
tables/011e554588e93a849e890685d6adb6be/route-entries
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.1

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional. The type. You can add two types of routes : static route and black hole route. The system will automatically determine the type by judging whether to enter the next hop.	- UserStatic - UserBlackHole	2.1
routeTable Uuid	String	url	The vRouter route table UUID.		2.1
destination	String	body (contained in the params structure)	The destination network address, in CIDR format. If you enter a non-standard CIDR, note that the system will automatically transform it to the standard CIDR format.		2.1
target	String	body (contained in the params structure)	Optional. The next hop address.		2.1

Name	Type	Location	Description	Optional Value	Starting Version
			The IP address that can be accessed directly by vRouter VM instances . If the IP address cannot be accessed directly, the route recursion will be triggered.		
distance	Integer	body (contained in the params structure)	Optional. The route priority. In the minimum match mode , if multiple route rules are available , the rule with the lowest integer has the highest priority to be matched.		2.1
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "inventory": {
    "description": "Test route",
    "type": "UserStatic",
    "routeTableUuid": "5dad5ac78c3642088dc3ed6bc4d8c853",
    "destination": "192.168.2.0/24",
    "target": "172.20.1.1",
    "distance": 128.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventory	VRouterRouteEntryInventory	See inventory .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root	2.1

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
description	String	The detailed description of the resource.	2.1
type	String	The type. You can add two types of routes: static route and black hole route. The system will automatically determine the type by judging whether to enter the next hop.	2.1
routeTableUuid	String	The vRouter route table UUID.	2.1
destination	String	The destination network address.	2.1
target	String	The next hop address. The IP address that can be accessed directly by vRouter VM instances. If the IP address cannot be accessed directly, the route recursion will be triggered.	2.1
distance	Integer	The route priority. In the minimum match mode, if multiple route rules are available, the rule with the lowest	2.1

Name	Type	Description	Starting Version
		integer has the highest priority to be matched.	
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1

SDK Sample

Java SDK

```
AddVRouterRouteEntryAction action = new AddVRouterRouteEntryAction();
action.description = "Test route";
action.type = "UserStatic";
action.routeTableUuid = "5c33ae47c7c94aaea08ead913ddfe0b4";
action.destination = "192.168.2.0/24";
action.target = "172.20.1.1";
action.sessionId = "f75a12a294fe4128b105e1d8f97257b3";
AddVRouterRouteEntryAction.Result res = action.call();
```

Python SDK

```
AddVRouterRouteEntryAction action = AddVRouterRouteEntryAction()
action.description = "Test route"
action.type = "UserStatic"
action.routeTableUuid = "4fab7c04998c44b4b6d2bc4da0b35ddb"
action.destination = "192.168.2.0/24"
action.target = "172.20.1.1"
action.sessionId = "1510b167ddf54461b69e41802ddcf5eb"
AddVRouterRouteEntryAction.Result res = action.call()
```

5.3.4.8.6 DeleteVRouterRouteEntry

API Request

URLs

```
DELETE zstack/v1/vrouter-route-tables/{routeTableUuid}/route-entries/
{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 07ed3c114a7f4ca0a10861d448a8b973" \
```

```
-X DELETE http://localhost:8080/zstack/v1/vrouter-
route-tables/a713099cca4c487e8ee46ed2ad798903/route-
entries/44f6816c4c7444b9b93b11c385f2bb19?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.1
routeTable Uuid	String	url			2.1
deleteMode	String	url	Optional. The delete mode.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVRouterRouteEntryAction action = new DeleteVRouterRouteEn
tryAction();
action.uuid = "6cc2578afb134d03959feb8cd586de06";
action.routeTableUuid = "e9b7f623b59d4cb5832a0eef61fdc273";
action.deleteMode = "Permissive";
action.sessionId = "eeda6890b1a2428087ae1c3d5b8e1311";
DeleteVRouterRouteEntryAction.Result res = action.call();
```

Python SDK

```
DeleteVRouterRouteEntryAction action = DeleteVRouterRouteEntryAction()
action.uuid = "eb9a0a4ab242430896d50be1a75c1c0d"
```

```
action.routeTableUuid = "295cbd7c2b1746ba9907eabecdb6cdf0"  
action.deleteMode = "Permissive"  
action.sessionId = "dd36b5ccb2444679820945da4ba4ebf3"  
DeleteVRouterRouteEntryAction.Result res = action.call()
```

5.3.4.8.7 QueryVRouterRouteEntry

API Request

URLs

```
GET zstack/v1/vrouter-route-tables/route-entries
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth 0a9d413ce14245f89cde947aa57ae4c3" \  
-X GET http://localhost:8080/zstack/v1/vrouter-route-tables/route-  
entries
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth eb2e3203532b405cbe9c2fde23deb53e" \  
-X GET http://localhost:8080/zstack/v1/vrouter-route-tables/route-  
entries/6c19d2d2bad3489f8b095c98fea971a5
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVRouterRouteEntry`, and pressing the **Tab** key.

API Response

Sample Response

```
{  
  "inventories": [  
    {  
      "description": "Test route",  
      "type": "UserStatic",  
      "routeTableUuid": "4b9b27aa14794f3c98f23818d8a4b281",  
      "destination": "192.168.2.0/24",  
      "target": "172.20.1.1"  
    }  
  ]  
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventories	List	See inventories .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.1
type	String	The type. You can add two types of routes: static route and black hole route. The system will automatically determine the type by judging whether to enter the next hop.	2.1
routeTableUuid	String	The vRouter route table UUID.	2.1
destination	String	The destination network address.	2.1
target	String	The next hop address. The IP address that can be accessed directly by vRouter VM instances. If the IP address cannot be accessed directly, the route recursion will be triggered.	2.1
distance	Integer	The route priority. In the minimum match mode, if multiple route rules are available, the rule with the lowest integer has the highest priority to be matched.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1

SDK Sample

Java SDK

```
QueryVRouterRouteEntryAction action = new QueryVRouterRouteEntryAction();
action.conditions = asList();
action.sessionId = "4388bb850faf4cf69e13ecb9bbdcd77e";
QueryVRouterRouteEntryAction.Result res = action.call();
```

Python SDK

```
QueryVRouterRouteEntryAction action = QueryVRouterRouteEntryAction()
action.conditions = []
action.sessionId = "116b877273e84748994435d8603423b4"
QueryVRouterRouteEntryAction.Result res = action.call()
```

5.3.4.8.8 AttachVRouterRouteTableToVRouter

API Request

URLs

```
POST zstack/v1/vrouter-route-tables/{routeTableUuid}/attach
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "virtualRouterVmUuid": "49e427183ffe4dd8b7c40a635f11f71b"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"virtualRouterVmUuid":"2b8bbccba54438e994d4d14d570a1807"}}' \
```

```
http://localhost:8080/zstack/v1/vrouter-route-tables/
ee1fc77524993a60a8c0e4b7245470db/attach
```

Request Parameters

Name	Type	Location	Description	Optional Value	Description
routeTable Uuid	String	url			2.1
virtualRou terVmUuid	String	body (contained in the params structure)	The VM instance UUID .		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-route-table",
    "description": "Test route table",
    "attachedRouterRefs": [],
    "routeEntries": []
  }
}
```

Name	Type	Description	Description
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventory	VRouterRouteTableInventory	See inventory .	2.1

#error

Name	Type	Description	Description
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#inventory

Name	Type	Description	Description
uuid	String	The resource UUID.	2.1
name	String	The resource name.	2.1
description	String	The detailed description of the resource.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
attachedRouterRefs	List	See attachedRouterRefs .	2.1
routeEntries	List	See routeEntries .	2.1

#attachedRouterRefs

Name	Type	Description	Description
virtualRouterVmUuid	String		2.1
routeTableUuid	String		2.1

#routeEntries

Name	Type	Description	Description
uuid	String	The resource UUID.	2.1
description	String	The detailed description of the resource.	2.1
type	String	The type. You can add two types of routes: static route and black hole route . The system will automatically determine the type by judging whether to enter the next hop.	2.1
routeTableUuid	String	The vRouter route table UUID.	2.1
destination	String	The destination network address.	2.1
target	String	The next hop address. The IP address that can be accessed directly by vRouter VM instances. If the IP address cannot be accessed directly, the route recursion will be triggered.	2.1
distance	Integer	The route priority. In the minimum match mode, if multiple route	2.1

Name	Type	Description	Description
		rules are available, the rule with the lowest integer has the highest priority to be matched.	
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1

SDK Sample

Java SDK

```
AttachVRouterRouteTableToVRouterAction action = new AttachVRouterRouteTableToVRouterAction();
action.routeTableUuid = "9d77dce987404000a00dd64594863e32";
action.virtualRouterVmUuid = "bfb7963808fa4d64b94cbbc8eb593398";
action.sessionId = "48e036e5881d41fa9070d2b6aa75c7ee";
AttachVRouterRouteTableToVRouterAction.Result res = action.call();
```

Python SDK

```
AttachVRouterRouteTableToVRouterAction action = AttachVRouterRouteTableToVRouterAction()
action.routeTableUuid = "0afcb79f56f74b1a96cce814362f861f"
action.virtualRouterVmUuid = "611126cb62094da4b6023824f0f2d0c9"
action.sessionId = "56fd37c6dff343948028d9b826ea4b10"
AttachVRouterRouteTableToVRouterAction.Result res = action.call()
```

5.3.4.8.9 DetachVRouterRouteTableFromVRouter

API Request

URLs

```
DELETE zstack/v1/vrouter-route-tables/{routeTableUuid}/detach/{virtualRouterVmUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/vrouter-
route-tables/2ef92879139f36e291314bed861a0cc7/
detach/50391e085c803988a3fa27e210834a16
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
routeTable Uuid	String	url	The vRouter route table UUID.		2.1
virtualRouterVmUuid	String	url	The vRouter table device UUID.		2.1
systemTags	List	body	Optional. The system tags.		2.1
userTags	List	body	Optional. The user tags.		2.1

API Response

Sample Response

```
{
  "inventory": {
    "name": "test-route-table",
    "description": "Test route table",
    "attachedRouterRefs": [],
    "routeEntries": []
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventory	VRouterRouteTableInventory	See inventory .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
name	String	The resource name.	2.1
description	String	The detailed description of the resource.	2.1
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1
attachedRouterRefs	List	See attachedRouterRefs .	2.1
routeEntries	List	See routeEntries .	2.1

#attachedRouterRefs

Name	Type	Description	Starting Version
virtualRouterVmUuid	String		2.1
routeTableUuid	String		2.1

#routeEntries

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.1
description	String	The detailed description of the resource.	2.1
type	String	The type. You can add two types of routes: static route and black hole route . The system will automatically determine the type by judging whether to enter the next hop.	2.1
routeTableUuid	String	The vRouter route table UUID.	2.1
destination	String	The destination network address.	2.1
target	String	The next hop address. The IP address that can be accessed directly by vRouter VM instances. If the IP address cannot be accessed directly, the route recursion will be triggered.	2.1
distance	Integer	The route priority. In the minimum match mode, if multiple route	2.1

Name	Type	Description	Starting Version
		rules are available, the rule with the lowest integer has the highest priority to be matched.	
createDate	Timestamp	The creation date.	2.1
lastOpDate	Timestamp	The last operation date.	2.1

SDK Sample

Java SDK

```
DetachVRouterRouteTableFromVRouterAction action = new DetachVRouterRouteTableFromVRouterAction();
action.routeTableUuid = "c157be1c2fac4806bd0e1ce04087a9b5";
action.virtualRouterVmUuid = "b844d0085c544aecb9a1c49e6c0fa4e9";
action.sessionId = "7299252a24404d92a5ee621ea5a2e6df";
DetachVRouterRouteTableFromVRouterAction.Result res = action.call();
```

Python SDK

```
DetachVRouterRouteTableFromVRouterAction action = DetachVRouterRouteTableFromVRouterAction()
action.routeTableUuid = "a7bece0ef6e04218af583d0d20078ec2"
action.virtualRouterVmUuid = "06a9a546ec6f4395b46fe5704f476ca2"
action.sessionId = "6923e611467343a3ad2f4c47163ad4bd"
DetachVRouterRouteTableFromVRouterAction.Result res = action.call()
```

5.3.4.8.10 QueryVirtualRouterVRouterRouteTableRef

API Request

URLs

```
GET zstack/v1/vrouter-route-tables/virtual-router-refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 735e8b68e40442659dac22fc30d7774b" \
-X GET http://localhost:8080/zstack/v1/vrouter-route-tables/virtual-router-refs
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVirtualRouterVRouterRouteTableRef`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "virtualRouterVmUuid": "ebec6ece12504916a12f13441282bb67",
      "routeTableUuid": "fbf34e1fc6924ff3ba4c338435dd8e61"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.1
inventories	List	See inventories .	2.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.1
description	String	The brief description of the error.	2.1
details	String	The details about the error.	2.1
elaboration	String	The reserved field. Default value: null.	2.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.1
cause	ErrorCode	The root error, which is the associated root	2.1

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
virtualRouterVmUuid	String		2.1
routeTableUuid	String		2.1

SDK Sample

Java SDK

```
QueryVirtualRouterVRouterRouteTableRefAction action = new QueryVirtualRouterVRouterRouteTableRefAction();
action.conditions = asList();
action.sessionId = "ec7b3e5724604965a1dcf3c7eb58a7c1";
QueryVirtualRouterVRouterRouteTableRefAction.Result res = action.call();
```

Python SDK

```
QueryVirtualRouterVRouterRouteTableRefAction action = QueryVirtualRouterVRouterRouteTableRefAction()
action.conditions = []
action.sessionId = "b2ca8cc84dae431e95cff3e95ace26c1"
```



```
QueryVirtualRouterVRouterRouteTableRefAction.Result res = action.call()
```

5.3.5 VPC Operations

5.3.5.1 CreateVpcVRouter

API Request

URLs

```
POST zstack/v1/vpc/virtual-routers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "TestVPC",
    "virtualRouterOfferingUuid": "d9a495f730564ce58328dbfdb1d05721",
    "description": "this is a vpc for test"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"TestVPC","virtualRouterOfferingUuid":"81e8c1f14a6e352884e6941c4a2de95a",
" is a vpc for test"}}' \
http://localhost:8080/zstack/v1/vpc/virtual-routers
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in	The resource name.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
virtualRouterOfferingUuid	String	body (contained in the params structure)	The vRouter offering UUID.		2.3
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.3
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.3
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID.		3.10.0
clusterUuid	String	body (contained in the params structure)	Optional. The cluster UUID.		3.10.0
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		3.10.0
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	Optional. The primary storage UUID.		4.4.24
rootVolumeSystemTags	List	body (contained in	Optional. The system tags		4.4.24

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	required by VPC vRouter root volume.		

**Note:**

- When you create a VPC vRouter in ZStack Cloud, the cloud records whether the VPC vRouter is added to an HA group. Note that you can add the **haUuid** option to **SystemTags**.
 - Format of the **haUuid** option: `haUuid::HA_GROUP_UUID`
 - Example: `haUuid::e2af8f869eff49d2a3d6f86cadcd27090`
- When you create a VPC vRouter in ZStack Cloud, you can specify a public IP by adding the **staticVip** option to **SystemTags**.
 - Format of the **staticVip** option: `staticVip::L3UUID::IP`. Here, L3UUID is the L3 public network UUID in the vRouter offering, and IP is the public IP address that you specified.
 - Example: `staticVip::4ed5cce4f55a43aca8e61ebbc0c3985d::172.20.1.1`

API Response

Sample Response

```
{
  "inventory": {
    "applianceVmType": "vpcvrouter",
    "managementNetworkUuid": "a01fad3eb1d14bd787b8830e1d287ee3",
    "status": "Connected",
    "agentPort": 7272.0,
    "uuid": "4de286dcb34343a0b5dedaea96307c06",
    "name": "TestVPC",
    "description": "this is a vpc for test",
    "zoneUuid": "88634bc51a1345b98058c1827999bd75",
    "clusterUuid": "5ebca05bc3cf4d5b970ddb32b10455c0",
    "imageUuid": "490043dfef814b119f0f6c264ed6bb1e",
    "hostUuid": "a19572ae4fcc4b7d8a090d06c99067fa",
    "lastHostUuid": "d374797d2d01495cb4dedd9e452909d0",
    "instanceOfferingUuid": "8fcc3c2b5e1b41e586ed07ffece475e4",
    "rootVolumeUuid": "ed5b232109f64f0dbe3342ffa8924d14",
    "platform": "Linux",
    "defaultL3NetworkUuid": "2aedc4cd00f8495f8fc08c991dd7be4c",
    "type": "ApplianceVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 4.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 9, 2017 4:20:39 PM",
    "lastOpDate": "Nov 9, 2017 4:20:39 PM",
    "state": "Running",
  }
}
```

```

"vmNics": [
  {
    "uuid": "6c8b46eec225440bb7179b6c797937ed",
    "vmInstanceUuid": "4de286dcb34343a0b5dedaea96307c06",
    "usedIpUuid": "033b876b861f4b9abaf594a893c1c94f",
    "l3NetworkUuid": "49e2d31895c94bf0808372360ebcae31",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 9, 2017 4:20:39 PM",
    "lastOpDate": "Nov 9, 2017 4:20:39 PM"
  }
],
"allVolumes": [
  {
    "uuid": "ed5b232109f64f0dbe3342ffa8924d14",
    "name": "Root-Volume-For-VM-4de286dcb34343a0b5dedaea96307c06",
    "primaryStorageUuid": "c3f1cbaf9b014c1d8989ff940ed5593a",
    "vmInstanceUuid": "4de286dcb34343a0b5dedaea96307c06",
    "diskOfferingUuid": "93bfd802ebea486ab4ce071967235b76",
    "rootImageUuid": "490043dfef814b119f0f6c264ed6bb1e",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-ed5b232109f64f0dbe3342ffa8924d14/ed5b232109
f64f0dbe3342ffa8924d14.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 9, 2017 4:20:39 PM",
    "lastOpDate": "Nov 9, 2017 4:20:39 PM"
  }
]
}

```

Name	Type	Description	Starting Version
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	VmInstanceInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
zoneUuid	String	The zone UUID.	2.3
clusterUuid	String	The cluster UUID.	2.3
imageUuid	String	The image UUID.	2.3
hostUuid	String	The host UUID.	2.3
lastHostUuid	String	The UUID of the host where the vRouter VM instance was running last time.	2.3

Name	Type	Description	Starting Version
instanceOfferingUuid	String	The instance offering UUID.	2.3
rootVolumeUuid	String	The root volume UUID.	2.3
platform	String	The operating platform of the vRouter device.	2.3
architecture	String		2.3
defaultL3NetworkUuid	String	The default L3 network UUID.	2.3
type	String	The vRouter device type.	2.3
hypervisorType	String	The hypervisor type of the vRouter device.	2.3
memorySize	Long	The memory size.	2.3
cpuNum	Integer	The CPU count.	2.3
cpuSpeed	Long	The CPU speed.	2.3
allocatorStrategy	String	The allocator strategy.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
state	String	The state of the vRouter device.	2.3
guestOsType	String		2.3
vmNics	List	See vmNics .	2.3
allVolumes	List	See allVolumes .	2.3
vmCdRoms	List	See vmCdRoms .	2.3

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
vmInstanceUuid	String	The VM instance UUID.	2.3

Name	Type	Description	Starting Version
I3NetworkUuid	String	The L3 network UUID.	2.3
ip	String	The IP address.	2.3
mac	String	The MAC address.	2.3
hypervisorType	String		2.3
netmask	String	The netmask.	2.3
gateway	String	The gateway.	2.3
metaData	String	The reserved field for internal use.	2.3
deviceId	Integer	The device ID. - Indicates the sequence (an integer) of the NIC on the Ethernet device of the guest operating system. - For example, 0 means eth0, while 1 means eth1.	2.3
internalName	String		2.3
deviceId	Integer		2.3
type	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
usedIps	List	See usedIps	2.3

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
ipRangeUuid	String	The IP range UUID.	2.3
I3NetworkUuid	String	The L3 network UUID.	2.3
ipVersion	Integer		2.3

Name	Type	Description	Starting Version
ip	String		2.3
netmask	String		2.3
gateway	String		2.3
usedFor	String		2.3
ipInLong	long		2.3
vmNicUuid	String	The VM NIC UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
primaryStorageUuid	String	The primary storage UUID.	2.3
vmInstanceUuid	String	The VM instance UUID.	2.3
diskOfferingUuid	String	The disk offering UUID.	2.3
rootImageUuid	String	The root image UUID.	2.3
installPath	String	The installation path.	2.3
type	String	The volume type.	2.3
format	String	The volume format.	2.3
size	Long	The virtual size of the volume.	2.3
actualSize	Long	The actual size of the volume.	2.3
deviceId	Integer	The device ID.	2.3

Name	Type	Description	Starting Version
state	String	The state of the volume.	2.3
status	String	The status of the volume.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
volumeQos	String		2.3
lastDetachDate	Timestamp		2.3
lastVmInstanceUuid	String		2.3
isShareable	Boolean	Whether the volume is shareable.	2.3

SDK Sample

Java SDK

```
CreateVpcVRouterAction action = new CreateVpcVRouterAction();
action.name = "TestVPC";
action.virtualRouterOfferingUuid = "c9cfb57035294ff4abeb400922f50d09";
action.description = "this is a vpc for test";
action.sessionId = "41652c67906143948e1fecc1054b65bd";
CreateVpcVRouterAction.Result res = action.call();
```

Python SDK

```
CreateVpcVRouterAction action = CreateVpcVRouterAction()
action.name = "TestVPC"
action.virtualRouterOfferingUuid = "a7eaafd48945481fa2d9a35032b8770b"
action.description = "this is a vpc for test"
action.sessionId = "9d1cc409dd8b47d3aa4ead7bccf875f2"
CreateVpcVRouterAction.Result res = action.call()
```

5.3.5.2 QueryVpcRouter

API Request

URLs

```
GET zstack/v1/vpc/virtual-routers
```

```
GET zstack/v1/vpc/virtual-routers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpc/virtual-routers?
q=name=vpcRouter
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpc/virtual-
routers/205d11a687d03b46852d4d24fc85ae75
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVpcRouter`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "dns": [
        {
          "vpcRouterUuid": "4183325c367d384a84458f89c35d62a8",
          "dns": "8.8.8.8"
        }
      ],
      "uuid": "4183325c367d384a84458f89c35d62a8",
      "name": "Test-VM",
      "description": "web server VM",
      "zoneUuid": "77689ed989253db0bb5863b103e06ecd",
      "clusterUuid": "7f124c177f1535cebca9b0a555998e8e",
      "imageUuid": "9e0eaf2e7ea93bc0bfc9f22d3f7328cd",
      "hostUuid": "72547613a0bf320caca7a149d99e3ed4",
      "lastHostUuid": "9e54bc8261f6396db6c66eb8a76e246d",
      "instanceOfferingUuid": "e115b1542d2e35c8b9fbb5afd9fd067c",
      "rootVolumeUuid": "48afbfc2d36391586f7b6b44df93712",
      "platform": "Linux",
      "defaultL3NetworkUuid": "70dc6311679638c0a1e323d583332463",
      "type": "UserVm",
      "hypervisorType": "KVM",
      "memorySize": 8.589934592E9,
      "cpuNum": 1.0,
      "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "state": "Running",
      "vmNics": [
```

```

    {
      "uuid": "df1eae8361983c86a46d3d922ad0a6f4",
      "vmInstanceUuid": "4183325c367d384a84458f89c35d62a8",
      "usedIpUuid": "2bdc1a927ebb34f89a880d8aefc7c763",
      "l3NetworkUuid": "70dc6311679638c0a1e323d583332463",
      "ip": "192.168.1.10",
      "mac": "00:0c:29:bd:99:fc",
      "netmask": "255.255.255.0",
      "gateway": "192.168.1.1",
      "deviceId": 0.0,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ],
  "allVolumes": [
    {
      "uuid": "48afbfc2d36391586f7b6b44df93712",
      "name": "Root-Volume-For-VM-4183325c367d384a84458f89c35d62a8",
      "primaryStorageUuid": "a33d58803a2a307bb1762b9209e64ba2",
      "vmInstanceUuid": "4183325c367d384a84458f89c35d62a8",
      "diskOfferingUuid": "c762d59a3e6f36d89bff2ce3ea4b864c",
      "rootImageUuid": "9e0eaf2e7ea93bc0bfc9f22d3f7328cd",
      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-48afbfc2d36391586f7b6b44df93712/48afbfc2d36391586f7b6b44df93712.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	0.6

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
publicNetworkUuid	String		0.6
virtualRouterVips	List		0.6
applianceVmType	String		0.6
managementNetworkUuid	String		0.6
defaultRouteL3NetworkUuid	String		0.6
status	String		0.6
agentPort	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
dns	List	See dns .	2.4
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#dns

Name	Type	Description	Starting Version
vpcRouterUuid	String		2.4
dns	String		2.4
createDate	Timestamp	The creation date.	2.4

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	2.4

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6

Name	Type	Description	Starting Version
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
QueryVpcRouterAction action = new QueryVpcRouterAction();  
action.conditions = asList("name=vpcRouter");  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
QueryVpcRouterAction.Result res = action.call();
```

Python SDK

```
QueryVpcRouterAction action = QueryVpcRouterAction()  
action.conditions = ["name=vpcRouter"]  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryVpcRouterAction.Result res = action.call()
```

5.3.5.3 GetAttachableVpcL3Network

API Request

URLs

```
POST zstack/v1/vpc/virtual-routers/{uuid}/attachable-vpc-l3s
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/vpc/
virtual-routers/417478f0b61732408176f16615ab6d32/attachable-vpc-l3s
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "81c29ac529163ffa9d4f246d68518dd1",
      "name": "test-l3",
      "description": "test l3",
      "type": "L3VpcNetwork",
      "zoneUuid": "aea3c47aa8273399ac8827fbc78aae67",
      "l2NetworkUuid": "cbba13d2e8273d529cfcb89c66d54fb2",
      "system": false,
      "category": "Private",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "ipRanges": [
        {
          "l3NetworkUuid": "cc5980d5c4173dd5b57dc1b28cdb0683",
          "name": "test ip range",
          "startIp": "100.64.0.10",
          "endIp": "100.64.0.100",
          "netmask": "255.255.255.0",
          "gateway": "100.64.0.1",
          "networkCidr": "100.64.0.0/24",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventories	List	See inventories .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.3

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
type	String	The L3 network type.	2.3
zoneUuid	String	The zone UUID.	2.3
l2NetworkUuid	String	The L2 network UUID.	2.3
state	String	The state of the L3 network.	2.3
dnsDomain	String	The DNS domain.	2.3
system	Boolean	Whether the L3 network can be applied to appliance VM instances.	2.3
category	String	The network type, which must be used with the system tags. If system is set to	2.3

Name	Type	Description	Starting Version
		true, this parameter can be set to Public or Private.	
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
dns	List	The DNS server.	2.3
ipRanges	List	See ipRanges .	2.3
networkServices	List	See networkServices .	2.3
hostRoute	List	See hostRoute .	

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
startIp	String	The start IP address.	2.3
endIp	String	The end IP address.	2.3
netmask	String	The netmask.	2.3
gateway	String	The gateway.	2.3
networkCidr	String	The network CIDR.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

#networkServices

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	2.3
networkServiceProviderUuid	String	The network service provider UUID.	2.3

Name	Type	Description	Starting Version
networkServiceType	String	The network service type.	2.3

#hostRoute

Name	Type	Description	Starting Version
id	Long		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
prefix	String		2.3
nextHop	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
GetAttachableVpcL3NetworkAction action = new GetAttachableVpcL3NetworkAction();
action.uuid = "417478f0b61732408176f16615ab6d32";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetAttachableVpcL3NetworkAction.Result res = action.call();
```

Python SDK

```
GetAttachableVpcL3NetworkAction action = GetAttachableVpcL3NetworkAction()
action.uuid = "417478f0b61732408176f16615ab6d32"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetAttachableVpcL3NetworkAction.Result res = action.call()
```

5.3.5.4 GetVpcVRouterDistributedRoutingConnections

API Request

URLs

```
GET zstack/v1/vpc/virtual-routers/{uuid}/tracked-connections
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpc/virtual-routers/
f37467649dca3ee8a0ddad0b856a8df6/tracked-connections
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The VPC vRouter UUID . To obtain the real-time traffic state of a VPC vRouter , enable distributed routing.		2.3
systemTags	List	query	Optional. The system tags.		2.3
userTags	List	query	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventories": {
    "192.168.31.156,192.168.105.175": {
```

```

    "sourceL2NetworkType": "L2VlanNetwork",
    "destinationL2NetworkType": "L2VlanNetwork",
    "sourceMac": "fa:bf:6e:37:c3:00",
    "destinationMac": "fa:3a:b3:ae:f4:00",
    "sourceL2NetworkVni": 3101.0,
    "destinationL2NetworkVni": 3105.0,
    "lastOpDate": "2017-12-02 15:23:44.872099448 +0800 CST m\u003d+
70467.712498312",
    "status": "ZSNP_DST_SUCC"
  }
}
}

```

Name	Type	Description	Starting Version
inventories	Map	The collection of the real-time traffic state. Its structure is Map. - Key is the communication address on each side. - The API response content is a Map , including the source network, destination network type, VNI, the MAC address on each side, the last operation date, and the current optimization status. - In the content, ZSNP_DST_SUCC means that the optimization succeeds.	2.3
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error.	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

SDK Sample

Java SDK

```
GetVpcVRouterDistributedRoutingConnectionsAction action = new
GetVpcVRouterDistributedRoutingConnectionsAction();
action.uuid = "f37467649dca3ee8a0ddad0b856a8df6";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVpcVRouterDistributedRoutingConnectionsAction.Result res = action.
call();
```

Python SDK

```
GetVpcVRouterDistributedRoutingConnectionsAction action = GetVpcVRou
terDistributedRoutingConnectionsAction()
action.uuid = "f37467649dca3ee8a0ddad0b856a8df6"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetVpcVRouterDistributedRoutingConnectionsAction.Result res = action.  
call()
```

5.3.5.5 GetVpcVRouterDistributedRoutingEnabled

API Request

URLs

```
GET zstack/v1/vpc/virtual-routers/{uuid}/distributed-routing
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/vpc/virtual-  
routers/9fab45026c2239d884db36ce9190660f/distributed-routing
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
systemTags	List	query	Optional. The system tags.		2.3
userTags	List	query	Optional. The user tags.		2.3

API Response

Sample Response

```
{  
  "enabled": true  
}
```

Name	Type	Description	Starting Version
enabled	boolean	Checks whether the distributed routing of the VPC vRouter is enabled.	2.3

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

SDK Sample

Java SDK

```
GetVpcVRouterDistributedRoutingEnabledAction action = new GetVpcVRouterDistributedRoutingEnabledAction();
action.uuid = "9fab45026c2239d884db36ce9190660f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
GetVpcVRouterDistributedRoutingEnabledAction.Result res = action.call();
```

Python SDK

```
GetVpcVRouterDistributedRoutingEnabledAction action = GetVpcVRouterDistributedRoutingEnabledAction()
action.uuid = "9fab45026c2239d884db36ce9190660f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVpcVRouterDistributedRoutingEnabledAction.Result res = action.call()
```

5.3.5.6 SetVpcVRouterDistributedRoutingEnabled

API Request

URLs

```
POST zstack/v1/vpc/virtual-routers/{uuid}/distributed-routing
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/vpc/virtual-routers/
fed6eb5e41d83512ba1f836b5473b4fc/distributed-routing
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
stateEvent	String	body (contained in the params structure)	The state of the resource.	• enable • disable	2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "enabled": true
}
```

Name	Type	Description	Starting Version
enabled	boolean	Checks whether the distributed routing of the VPC vRouter is enabled.	2.3
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

SDK Sample

Java SDK

```
SetVpcVRouterDistributedRoutingEnabledAction action = new SetVpcVRouterDistributedRoutingEnabledAction();
action.uuid = "fed6eb5e41d83512ba1f836b5473b4fc";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVpcVRouterDistributedRoutingEnabledAction.Result res = action.call();
```

Python SDK

```
SetVpcVRouterDistributedRoutingEnabledAction action = SetVpcVRouterDistributedRoutingEnabledAction()
action.uuid = "fed6eb5e41d83512ba1f836b5473b4fc"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetVpcVRouterDistributedRoutingEnabledAction.Result res = action.call
()
```

5.3.5.7 AddDnsToVpcRouter

API Request

URLs

```
POST zstack/v1/vpc/virtual-routers/{uuid}/dns
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "dns": "8.8.8.8"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"dns":"8.8.8.8"}}' \
http://localhost:8080/zstack/v1/vpc/virtual-routers/
a6b12587c0c93b50956c689cae6e4404/dns
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
dns	String	body (contained in the params structure)			2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "dns": [
      {
        "vpcRouterUuid": "8ddf2e00f7623bf38125744211f17c12",
        "dns": "8.8.8.8"
      }
    ],
    "applianceVmType": "vpcvrouter",
    "managementNetworkUuid": "363b0211294d3fe1af316723d18d54a3",
    "status": "Connected",
    "agentPort": 7272.0,
    "uuid": "8ddf2e00f7623bf38125744211f17c12",
    "name": "TestVPC",
    "description": "this is a vpc for test",
    "zoneUuid": "d3cd927aa5953371aa13b82688258c13",
    "clusterUuid": "61a2077d121637a09f27f5d1926d545e",
    "imageUuid": "09024d35eab63bc080dc0f0e7aa3fa5c",
    "hostUuid": "092e3f1b71a53b01bcc2919fb31b43a3",
    "lastHostUuid": "64eb21f707d53db4822602c3714fc69e",
    "instanceOfferingUuid": "ec1a12c9f896392bb42757c02f24870c",
    "rootVolumeUuid": "857592621b163444899c275b258d780c",
    "platform": "Linux",
    "defaultL3NetworkUuid": "ad1173e8e97e385a8d3aaec182ee1fc3",
    "type": "ApplianceVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 4.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "e0ba27ddc8fe33e882cc15dc60dcd58e",
        "vmInstanceUuid": "8ddf2e00f7623bf38125744211f17c12",
        "usedIpUuid": "0aecfc23129a3b7395fbff6e5d17303c",
        "l3NetworkUuid": "d3d2b9e10ce4376782ccf210ad62f49e",
        "ip": "192.168.1.10",

```

```

    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  ],
  "allVolumes": [
    {
      "uuid": "857592621b163444899c275b258d780c",
      "name": "Root-Volume-For-VM-8ddf2e00f7623bf38125744211f17c12",
      "primaryStorageUuid": "1b880ac4a03e3ce0859b52e4c4274e76",
      "vmInstanceUuid": "8ddf2e00f7623bf38125744211f17c12",
      "diskOfferingUuid": "37537d10d728350687d0739141dd4b42",
      "rootImageUuid": "09024d35eab63bc080dc0f0e7aa3fa5c",
      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-857592621b163444899c275b258d780c/857592621b
163444899c275b258d780c.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4
inventory	VpcRouterVmInventory	See inventory .	2.4

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
publicNetworkUuid	String		0.6
virtualRouterVips	List		0.6
applianceVmType	String		0.6
managementNetworkUuid	String		0.6
defaultRouteL3NetworkUuid	String		0.6
status	String		0.6
agentPort	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6

Name	Type	Description	Starting Version
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
dns	List	See dns .	2.4
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#dns

Name	Type	Description	Starting Version
vpcRouterUuid	String		2.4
dns	String		2.4
createDate	Timestamp	The creation date.	2.4
lastOpDate	Timestamp	The last operation date.	2.4

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6
size	Long		0.6

Name	Type	Description	Starting Version
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
AddDnsToVpcRouterAction action = new AddDnsToVpcRouterAction();
action.uuid = "a6b12587c0c93b50956c689cae6e4404";
action.dns = "8.8.8.8";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddDnsToVpcRouterAction.Result res = action.call();
```

Python SDK

```
AddDnsToVpcRouterAction action = AddDnsToVpcRouterAction()
action.uuid = "a6b12587c0c93b50956c689cae6e4404"
action.dns = "8.8.8.8"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddDnsToVpcRouterAction.Result res = action.call()
```

5.3.5.8 RemoveDnsFromVpcRouter

API Request

URLs

```
DELETE zstack/v1/vpc/virtual-routers/{uuid}/dns?dns={dns}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/vpc/virtual-
routers/704e0c0e0fd23566bfac3416fb5cd5dd/dns?dns=8.8.4.4
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
dns	String	url			0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "dns": [
      {
        "vpcRouterUuid": "67a8f5c346923086bfff064bc332dee1f",
        "dns": "8.8.8.8"
      }
    ],
    "applianceVmType": "vpcvrouter",
    "managementNetworkUuid": "8afbedef6a8c3c44b0da74ac251c8710",
    "status": "Connected",
    "agentPort": 7272.0,
    "uuid": "67a8f5c346923086bfff064bc332dee1f",
    "name": "TestVPC",
    "description": "this is a vpc for test",
    "zoneUuid": "ed322832de35346e83ee3af58ae0ba1f",
    "clusterUuid": "8152b3dd20ad39eab72feeb39b54bd5a",
    "imageUuid": "d9f78c772d123b72b423f2d38d177404",
    "hostUuid": "2936a13adb2d321aaf2f8a6bad17b512",
    "lastHostUuid": "dc046362b4903f87b4cf99a31bf8b0c0",
    "instanceOfferingUuid": "d0656359210c3448baaedb3284a59607",
    "rootVolumeUuid": "7df4d03d3f773176b84d0015b26eba3a",
    "platform": "Linux",
    "defaultL3NetworkUuid": "91fce38c41e83adcbd1a2ddc7a657a68",
    "type": "ApplianceVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 4.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
```

```

    "uuid": "13f3d555d0083171b02f542e359699b6",
    "vmInstanceUuid": "67a8f5c346923086bfff064bc332dee1f",
    "usedIpUuid": "da61650287ed32238b557d6c11c245d5",
    "l3NetworkUuid": "27fc48db6d34311e9a68c61c4f7737b1",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  ],
  "allVolumes": [
    {
      "uuid": "7df4d03d3f773176b84d0015b26eba3a",
      "name": "Root-Volume-For-VM-67a8f5c346923086bfff064bc332dee1f",
      "primaryStorageUuid": "e274d0516c1432bdbc9187a95f03958b",
      "vmInstanceUuid": "67a8f5c346923086bfff064bc332dee1f",
      "diskOfferingUuid": "f36042caf77835b0912e008a1ff49d88",
      "rootImageUuid": "d9f78c772d123b72b423f2d38d177404",
      "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-7df4d03d3f773176b84d0015b26eba3a/7df4d03d3f
773176b84d0015b26eba3a.qcow2",
      "type": "Root",
      "format": "qcow2",
      "size": 1.073741824E11,
      "actualSize": 2.147483648E10,
      "deviceId": 0.0,
      "state": "Enabled",
      "status": "Ready",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VpcRouterVmInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
publicNetworkUuid	String		0.6
virtualRouterVips	List		0.6
applianceVmType	String		0.6
managementNetworkUuid	String		0.6
defaultRouteL3NetworkUuid	String		0.6
status	String		0.6
agentPort	Integer		0.6
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
zoneUuid	String	The zone UUID.	0.6

Name	Type	Description	Starting Version
clusterUuid	String	The cluster UUID.	0.6
imageUuid	String	The image UUID.	0.6
hostUuid	String	The host UUID.	0.6
lastHostUuid	String		0.6
instanceOfferingUuid	String	The instance offering UUID.	0.6
rootVolumeUuid	String	The root volume UUID.	0.6
platform	String		0.6
defaultL3NetworkUuid	String		0.6
type	String		0.6
hypervisorType	String		0.6
memorySize	Long		0.6
cpuNum	Integer		0.6
cpuSpeed	Long		0.6
allocatorStrategy	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
dns	List	See dns .	2.4
vmNics	List	See vmNics .	0.6
allVolumes	List	See allVolumes .	0.6

#dns

Name	Type	Description	Starting Version
vpcRouterUuid	String		2.4
dns	String		2.4
createDate	Timestamp	The creation date.	2.4
lastOpDate	Timestamp	The last operation date.	2.4

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
primaryStorageUuid	String	The primary storage UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
diskOfferingUuid	String	The disk offering UUID.	0.6
rootImageUuid	String		0.6
installPath	String		0.6
type	String		0.6
format	String		0.6

Name	Type	Description	Starting Version
size	Long		0.6
actualSize	Long		0.6
deviceId	Integer		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
isShareable	Boolean		0.6

SDK Sample

Java SDK

```
RemoveDnsFromVpcRouterAction action = new RemoveDnsFromVpcRouterAction
();
action.uuid = "704e0c0e0fd23566bfac3416fb5cd5dd";
action.dns = "8.8.4.4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveDnsFromVpcRouterAction.Result res = action.call();
```

Python SDK

```
RemoveDnsFromVpcRouterAction action = RemoveDnsFromVpcRouterAction()
action.uuid = "704e0c0e0fd23566bfac3416fb5cd5dd"
action.dns = "8.8.4.4"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveDnsFromVpcRouterAction.Result res = action.call()
```

5.3.5.9 GetVpcVRouterNetworkServiceState

API Request

URLs

```
GET zstack/v1/vpc/virtual-routers/{uuid}/networkservicestate
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/vpc/virtual-
routers/51d5917daba83390978604d7b9c8c13a/networkservicestate?
networkService=SNAT
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.4.0
networkService	String	query	The vRouter network service.	• SNAT	3.4.0
systemTags	List	query	Optional. The vRouter system tags.		3.4.0
userTags	List	query	Optional. The vRouter user tags.		3.4.0

**Note:**

- When you obtain the network service state of a VPC vRouter in ZStack Cloud, you can disable the SNAT service of the VPC vRouter by adding the **disabledService** option to **SystemTags**.
 - Format of the **disabledService** option: `disabledService::SNAT`
 - Example: `disabledService::SNAT`
 - If the **SystemTag** of the VPC vRouter does not contain the `resourceType::VirtualRouterVmV0` flag, the SNAT service of the VPC vRouter is enabled. Otherwise, if the **SystemTag** contains the `resourceType::VirtualRouterVmV0` flag, the SNAT service is disabled.

API Response

Sample Response

```
{
  "state": "enable"
}
```

Name	Type	Description	Starting Version
state	String		3.4.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

SDK Sample

Java SDK

```
GetVpcVRouterNetworkServiceStateAction action = new GetVpcVRouterNetworkServiceStateAction();
action.uuid = "51d5917daba83390978604d7b9c8c13a";
action.networkService = "SNAT";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
GetVpcVRouterNetworkServiceStateAction.Result res = action.call();
```

Python SDK

```
GetVpcVRouterNetworkServiceStateAction action = GetVpcVRouterNetwork
ServiceStateAction()
action.uuid = "51d5917daba83390978604d7b9c8c13a"
action.networkService = "SNAT"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVpcVRouterNetworkServiceStateAction.Result res = action.call()
```

5.3.5.10 SetVpcVRouterNetworkServiceState

API Request

URLs

```
POST zstack/v1/vpc/virtual-routers/{uuid}/networkservicestate
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "networkService": "SNAT",
    "state": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"networkService":"SNAT","state":"enable"}}'
http://localhost:8080/zstack/v1/vpc/virtual-
routers/824ad6ab1b5a3bd1ad935fa098d77826/networkservicestate
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.4.0
networkService	String	body (contained in the params structure)	The vRouter network service.	• SNAT	3.4.0
state	String	body (contained in the params structure)	The service state.	• enable • disable	3.4.0
systemTags	List	body	Optional. The vRouter system tags.		3.4.0
userTags	List	body	Optional. The vRouter user tags.		3.4.0

**Note:**

- When you obtain the network service state of a VPC vRouter in ZStack Cloud, you can disable the SNAT service of the VPC vRouter by adding the **disabledService** option to **SystemTags**.
 - Format of the **disabledService** option: `disabledService::SNAT`
 - Example: `disabledService::SNAT`
 - If the **SystemTag** of the VPC vRouter does not contain the `resourceType::VirtualRouterVmV0` flag, the SNAT service of the VPC vRouter is enabled. Otherwise, if the **SystemTag** contains the `resourceType::VirtualRouterVmV0` flag, the SNAT service is disabled.

API Response

Sample Response

```
{
  "state": "enable"
}
```

}

Name	Type	Description	Starting Version
state	String		3.4.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

SDK Sample

Java SDK

```
SetVpcVRouterNetworkServiceStateAction action = new SetVpcVRou
terNetworkServiceStateAction();
action.uuid = "824ad6ab1b5a3bd1ad935fa098d77826";
action.networkService = "SNAT";
```

```
action.state = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVpcVRouterNetworkServiceStateAction.Result res = action.call();
```

Python SDK

```
SetVpcVRouterNetworkServiceStateAction action = SetVpcVRouterNetwork
ServiceStateAction()
action.uuid = "824ad6ab1b5a3bd1ad935fa098d77826"
action.networkService = "SNAT"
action.state = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetVpcVRouterNetworkServiceStateAction.Result res = action.call()
```

5.3.5.11 ChangeVpcHaGroupMonitorIps

API Request

URLs

```
PUT zstack/v1/vpc/hagroups/{uuid}/monitorIps
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVpcHaGroupMonitorIps": {
    "monitorIps": [
      "8.8.8.8"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeVpcHaGroupMonitorIps":{"monitorIps":
["8.8.8.8"]}}' http://localhost:8080/zstack/v1/vpc/
hagroups/580eaca0eceb3da1bc03aa0b2dfaed64/monitorIps
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.1
monitorIps	List	body (contained in the changeVpcHaGroupMonitorIps structure)	Optional.		3.5.1
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "85ba2342e37930f6a0cdd056565654cd",
    "name": "test-vpcha",
    "monitors": [
      {
        "id": 0.0,
        "vpcHaRouterUuid": "85ba2342e37930f6a0cdd056565654cd",
        "monitorIp": "1.1.1.1"
      }
    ],
    "vrRefs": [
      {
        "uuid": "c109f7860f2439ca86d1dbc51dbece39",
        "vpcHaRouterUuid": "85ba2342e37930f6a0cdd056565654cd"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5

Name	Type	Description	Starting Version
inventory	VpcHaGroupInventory	See inventory .	3.5

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5
name	String	The resource name.	3.5
description	String	The detailed description of the resource.	3.5
createDate	Timestamp	The creation date.	3.5
lastOpDate	Timestamp	The last operation date.	3.5
monitors	List	See monitors .	3.5

Name	Type	Description	Starting Version
vrRefs	List	See vrRefs .	3.5
services	List	See services .	3.5
usedIps	List	See usedIps .	3.5

#monitors

Name	Type	Description	Starting Version
id	Long		3.5
vpcHaRouterUuid	String		3.5
monitorIp	String		3.5
createDate	Timestamp	The creation date.	3.5
lastOpDate	Timestamp	The last operation date.	3.5

#vrRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5
VpcHaRouterUuid	String		3.5

#services

Name	Type	Description	Starting Version
id	Long		3.5
vpcHaRouterUuid	String		3.5
networkServiceName	String		3.5
networkServiceUuid	String		3.5
createDate	Timestamp	The creation date.	3.5
lastOpDate	Timestamp	The last operation date.	3.5

#usedIps

Name	Type	Description	Starting Version
id	Long		3.5

Name	Type	Description	Starting Version
vpcHaRouterUuid	String		3.5
vipUuid	String	The VIP UUID.	3.5
l3NetworkUuid	String	The L3 network UUID.	3.5
ip	String		3.5
netmask	String		3.5
createDate	Timestamp	The creation date.	3.5
lastOpDate	Timestamp	The last operation date.	3.5

SDK Sample

Java SDK

```
ChangeVpcHaGroupMonitorIpsAction action = new ChangeVpcHaGroupMonitorIpsAction();
action.uuid = "580eaca0eceb3da1bc03aa0b2dfaед64";
action.monitorIps = asList("8.8.8.8");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeVpcHaGroupMonitorIpsAction.Result res = action.call();
```

Python SDK

```
ChangeVpcHaGroupMonitorIpsAction action = ChangeVpcHaGroupMonitorIpsAction()
action.uuid = "580eaca0eceb3da1bc03aa0b2dfaед64"
action.monitorIps = [8.8.8.8]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeVpcHaGroupMonitorIpsAction.Result res = action.call()
```

5.3.5.12 CreateVpcHaGroup

API Request

URLs

```
POST zstack/v1/vpc/hagroups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "vpcha-router",
```

```

    "description": "this is a vpc for test",
    "monitorIps": [
      "8.8.8.8"
    ],
    "systemTags": [],
    "userTags": []
  }
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"vpcha-router","description":"this is a vpc for test","monitorIps":["8.8.8.8"]}}' http://localhost:8080/zstack/v1/vpc/hagroups

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		3.5.1
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.5.1
monitorIps	List	body (contained in the params structure)	Optional.		3.5.1
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.5.1
tagUuids	List	body (contained in	Optional. The tag UUID list.		3.5.1

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d32cd856d4603754aa30d8fe60ea07a4",
    "name": "test-vpcha",
    "monitors": [
      {
        "id": 0.0,
        "vpcHaRouterUuid": "d32cd856d4603754aa30d8fe60ea07a4",
        "monitorIp": "1.1.1.1"
      }
    ],
    "vrRefs": [
      {
        "uuid": "a26bee5e86153d2aa579c01756ca0944",
        "vpcHaRouterUuid": "d32cd856d4603754aa30d8fe60ea07a4"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventory	VpcHaGroupInventory	See inventory .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	3.5.1

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
name	String	The resource name.	3.5.1
description	String	The detailed description of the resource.	3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1
monitors	List	See monitors .	3.5.1
vrRefs	List	See vrRefs .	3.5.1
services	List	See services .	3.5.1
usedIps	List	See usedIps .	3.5.1

#monitors

Name	Type	Description	Starting Version
id	Long		3.5.1
vpcHaRouterUuid	String		3.5.1
monitorIp	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

#vrRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
VpcHaRouterUuid	String		3.5.1

#services

Name	Type	Description	Starting Version
id	Long		3.5.1
vpcHaRouterUuid	String		3.5.1
networkServiceName	String		3.5.1
networkServiceUuid	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

#usedIps

Name	Type	Description	Starting Version
id	Long		3.5.1
vpcHaRouterUuid	String		3.5.1
vipUuid	String	The VIP UUID.	3.5.1
I3NetworkUuid	String	The L3 network UUID.	3.5.1
ip	String		3.5.1
netmask	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.5.1

SDK Sample

Java SDK

```
CreateVpcHaGroupAction action = new CreateVpcHaGroupAction();
action.name = "vpcha-router";
action.description = "this is a vpc for test";
action.monitorIps = asList("8.8.8.8");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVpcHaGroupAction.Result res = action.call();
```

Python SDK

```
CreateVpcHaGroupAction action = CreateVpcHaGroupAction()
action.name = "vpcha-router"
action.description = "this is a vpc for test"
action.monitorIps = [8.8.8.8]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVpcHaGroupAction.Result res = action.call()
```

5.3.5.13 DeleteVpcHaGroup

API Request

URLs

```
DELETE zstack/v1/vpc/hagroups/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vpc/hagroups/90376847491b3d9a85df382f65d60a16?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.1

Name	Type	Location	Description	Optional Value	Starting Version
deleteMode	String	body	Optional. The delete mode.		3.5.1
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVpcHaGroupAction action = new DeleteVpcHaGroupAction();
action.uuid = "90376847491b3d9a85df382f65d60a16";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVpcHaGroupAction.Result res = action.call();
```

Python SDK

```
DeleteVpcHaGroupAction action = DeleteVpcHaGroupAction()
action.uuid = "90376847491b3d9a85df382f65d60a16"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteVpcHaGroupAction.Result res = action.call()
```

5.3.5.14 UpdateVpcHaGroup

API Request

URLs

```
PUT zstack/v1/vpc/hagroups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVpcHaGroup": {
    "name": "ha-1",
    "description": "vpc ha test"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVpcHaGroup":{"name":"ha-1","description":"vpc
ha test"}}' http://localhost:8080/zstack/v1/vpc/
hagroups/0f3d8a0c297f3972b798d128070ca785/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.1
name	String	body (contained in the updateVpcH	Optional. The resource name.		3.5.1

Name	Type	Location	Description	Optional Value	Starting Version
		aGroup structure)			
description	String	body (contained in the updateVpCH aGroup structure)	Optional. The detailed description of the resource.		3.5.1
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5ddaa8fa444c3b0a8e9187d87eb026f6",
    "name": "test-vpcha",
    "monitors": [
      {
        "id": 0.0,
        "vpchRouterUuid": "5ddaa8fa444c3b0a8e9187d87eb026f6",
        "monitorIp": "1.1.1.1"
      }
    ],
    "vrRefs": [
      {
        "uuid": "184c6cab367e3da0aaf7624aa40bb3d0",
        "vpchRouterUuid": "5ddaa8fa444c3b0a8e9187d87eb026f6"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventory	VpCHaGroupInventory	See inventory .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
name	String	The resource name.	3.5.1
description	String	The detailed description of the resource.	3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1
monitors	List	See monitors .	3.5.1
vrRefs	List	See vrRefs .	3.5.1
services	List	See services .	3.5.1

Name	Type	Description	Starting Version
usedIps	List	See usedIps .	3.5.1

#monitors

Name	Type	Description	Starting Version
id	Long		3.5.1
vpcHaRouterUuid	String		3.5.1
monitorIp	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

#vrRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
VpcHaRouterUuid	String		3.5.1

#services

Name	Type	Description	Starting Version
id	Long		3.5.1
vpcHaRouterUuid	String		3.5.1
networkServiceName	String		3.5.1
networkServiceUuid	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

#usedIps

Name	Type	Description	Starting Version
id	Long		3.5.1
vpcHaRouterUuid	String		3.5.1
vipUuid	String	The VIP UUID.	3.5.1

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	3.5.1
ip	String		3.5.1
netmask	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

SDK Sample

Java SDK

```
UpdateVpcHaGroupAction action = new UpdateVpcHaGroupAction();
action.uuid = "0f3d8a0c297f3972b798d128070ca785";
action.name = "ha-1";
action.description = "vpc ha test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVpcHaGroupAction.Result res = action.call();
```

Python SDK

```
UpdateVpcHaGroupAction action = UpdateVpcHaGroupAction()
action.uuid = "0f3d8a0c297f3972b798d128070ca785"
action.name = "ha-1"
action.description = "vpc ha test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVpcHaGroupAction.Result res = action.call()
```

5.3.5.15 QueryVpcHaGroup

API Request

URLs

```
GET zstack/v1/vpc/hagroups
GET zstack/v1/vpc/hagroups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpc/hagroups?
q=uuid=3c5648a2a8a931cb9396d07479e833f7
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpc/
hagroups/2dc01a9b66a73a9399a7c1f29c91863a
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVpchaGroup**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "843c2f1083d33689b1ecc19bd802158b",
      "name": "test-vpcha",
      "monitors": [
        {
          "id": 0.0,
          "vpchaRouterUuid": "843c2f1083d33689b1ecc19bd802158b",
          "monitorIp": "1.1.1.1"
        }
      ],
      "vrRefs": [
        {
          "uuid": "87c3f098d2c7387b867ba0beb5d1a561",
          "vpchaRouterUuid": "843c2f1083d33689b1ecc19bd802158b"
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventories	List	See inventories .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	3.5.1

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
name	String	The resource name.	3.5.1
description	String	The detailed description of the resource.	3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1
monitors	List	See monitors .	3.5.1
vrRefs	List	See vrRefs .	3.5.1
services	List	See services .	3.5.1
usedIps	List	See usedIps .	3.5.1

#monitors

Name	Type	Description	Starting Version
id	Long		3.5.1
vpcHaRouterUuid	String		3.5.1
monitorIp	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

#vrRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
VpcHaRouterUuid	String		3.5.1

#services

Name	Type	Description	Starting Version
id	Long		3.5.1
vpcHaRouterUuid	String		3.5.1
networkServiceName	String		3.5.1
networkServiceUuid	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

#usedIps

Name	Type	Description	Starting Version
id	Long		3.5.1
vpcHaRouterUuid	String		3.5.1
vipUuid	String	The VIP UUID.	3.5.1
I3NetworkUuid	String	The L3 network UUID.	3.5.1
ip	String		3.5.1
netmask	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.5.1

SDK Sample

Java SDK

```
QueryVpcHaGroupAction action = new QueryVpcHaGroupAction();
action.conditions = asList("uuid=26a2360f164c3a7fba94281b9e24046c");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVpcHaGroupAction.Result res = action.call();
```

Python SDK

```
QueryVpcHaGroupAction action = QueryVpcHaGroupAction()
action.conditions = ["uuid=ddbc6e5deae3f3dfad33738ea1daefca"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVpcHaGroupAction.Result res = action.call()
```

5.3.5.16 UpdateVirtualRouter

API Request

URLs

```
PUT zstack/v1/vm-instances/appliances/virtual-routers/
{vmInstanceId}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVirtualRouter": {
    "defaultRouteL3NetworkUuid": "9889c6be639d3aefb72ae84f435c94c7"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVirtualRouter":
{"defaultRouteL3NetworkUuid":"9889c6be639d3aefb72ae84f435c94c7"}}'
http://localhost:8080/zstack/v1/vm-instances/appliances/virtual-
routers/abd7e9700ed839a583c5af6f8b4dd417/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	body (contained in the updateVirtualRouter structure)	The resource UUID.		3.9.0
defaultRouteL3NetworkUuid	String	body (contained in the updateVirtualRouter structure)	Optional. The default route L3 network UUID.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventory": {
    "publicNetworkUuid": "142981c8c8243113b52db453575fb03f",
    "managementNetworkUuid": "1d182cdfa0a93daa9e4eb275b86645ff",
    "name": "Test-Router",
    "description": "this is a virtual router vm",
    "clusterUuid": "ea4cb55d692a3c45a154892539117472",
    "imageUuid": "3764ffab842333c895a9e1746315fab3",
    "instanceOfferingUuid": "ba4019cd841430258d8943f281b36c19"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventory	VirtualRouterVmInventory	See inventory .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventory

Name	Type	Description	Starting Version
publicNetworkUuid	String		3.9.0

Name	Type	Description	Starting Version
virtualRouterVips	List		3.9.0
applianceVmType	String		3.9.0
managementNetworkUuid	String		3.9.0
defaultRouteL3NetworkUuid	String		3.9.0
status	String		3.9.0
agentPort	Integer		3.9.0
haStatus	String		3.9.0
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
zoneUuid	String	The zone UUID.	3.9.0
clusterUuid	String	The cluster UUID.	3.9.0
imageUuid	String	The image UUID.	3.9.0
hostUuid	String	The host UUID.	3.9.0
lastHostUuid	String		3.9.0
instanceOfferingUuid	String	The instance offering UUID.	3.9.0
rootVolumeUuid	String	The root volume UUID.	3.9.0
platform	String		3.9.0
defaultL3NetworkUuid	String		3.9.0
type	String		3.9.0
hypervisorType	String		3.9.0
memorySize	Long		3.9.0
cpuNum	Integer		3.9.0
cpuSpeed	Long		3.9.0
allocatorStrategy	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.9.0
state	String		3.9.0
vmNics	List	See vmNics .	3.9.0
allVolumes	List	See allVolumes .	3.9.0
vmCdRoms	List	See vmCdRoms .	3.9.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
vmInstanceUuid	String	The VM instance UUID.	3.9.0
l3NetworkUuid	String	The L3 network UUID.	3.9.0
ip	String		3.9.0
mac	String		3.9.0
hypervisorType	String		3.9.0
netmask	String		3.9.0
gateway	String		3.9.0
metaData	String		3.9.0
ipVersion	Integer		3.9.0
driverType	String		3.9.0
deviceId	Integer		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
usedIps	List	See usedIps .	3.9.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
ipRangeUuid	String	The IP range UUID.	3.9.0

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	3.9.0
ipVersion	Integer		3.9.0
ip	String		3.9.0
netmask	String		3.9.0
gateway	String		3.9.0
usedFor	String		3.9.0
ipInLong	long		3.9.0
vmNicUuid	String	The VM NIC UUID.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
primaryStorageUuid	String	The primary storage UUID.	3.9.0
vmInstanceUuid	String	The VM instance UUID.	3.9.0
diskOfferingUuid	String	The disk offering UUID.	3.9.0
rootImageUuid	String		3.9.0
installPath	String		3.9.0
type	String		3.9.0
format	String		3.9.0
size	Long		3.9.0
actualSize	Long		3.9.0
deviceId	Integer		3.9.0

Name	Type	Description	Starting Version
state	String		3.9.0
status	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
isShareable	Boolean		3.9.0
volumeQos	String		3.9.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
vmInstanceUuid	String	The VM instance UUID.	3.9.0
deviceId	Integer		3.9.0
isoUuid	String		3.9.0
isoInstallPath	String		3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
UpdateVirtualRouterAction action = new UpdateVirtualRouterAction();
action.vmInstanceUuid = "abd7e9700ed839a583c5af6f8b4dd417";
action.defaultRouteL3NetworkUuid = "9889c6be639d3aefb72ae84f435c94c7";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVirtualRouterAction.Result res = action.call();
```

Python SDK

```
UpdateVirtualRouterAction action = UpdateVirtualRouterAction()
action.vmInstanceUuid = "abd7e9700ed839a583c5af6f8b4dd417"
action.defaultRouteL3NetworkUuid = "9889c6be639d3aefb72ae84f435c94c7"
```



```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVirtualRouterAction.Result res = action.call()
```

5.3.5.17 UpdateVirtualRouterSoftwareVersion

API Request

URLs

```
POST zstack/v1/vpc/virtual-routers/{uuid}/softwareversion
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "softwareName": "IPsec",
    "targetVersion": "5.9.4"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"softwareName":"IPsec","targetVersion":"5.9.4"}}' \
http://localhost:8080/zstackv1/vpc/virtual-
routers/8971d40547ca3641ac809bb967426e17/softwareversion
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.5.0
softwareName	String	body (contained in	The VPC software name	IPsec	4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
targetVersion	String	body (contained in the params structure)	The target version.	4.5.2 5.9.4	4.5.0
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. the user tag.		4.5.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UpdateVirtualRouterSoftwareVersionAction action = new UpdateVirtualRouterSoftwareVersionAction();
action.uuid = "8971d40547ca3641ac809bb967426e17";
action.softwareName = "IPsec";
action.targetVersion = "5.9.4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVirtualRouterSoftwareVersionAction.Result res = action.call();
```

Python SDK

```
UpdateVirtualRouterSoftwareVersionAction action = UpdateVirtualRouterSoftwareVersionAction()
action.uuid = "8971d40547ca3641ac809bb967426e17"
action.softwareName = "IPsec"
action.targetVersion = "5.9.4"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateVirtualRouterSoftwareVersionAction.Result res = action.call()
```

5.3.5.18 GetVirtualRouterSoftwareVersion

API Request

URLs

```
GET zstack/v1/vpc/virtual-routers/{uuid}/softwareversion
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpc/virtual-routers/
softwareversion \
uuid=c25bedf80bde367a86344add1264ed06&softwareName=IPsec&needUpdate=false
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	query	Optional. The resource UUID.		4.5.0
softwareName	String	query	The VPC software name.	IPsec	4.5.0
needUpdate	Boolean	query	Optional. Choose whether to update.		4.5.0
systemTags	List	query	Optional. The system tag.		4.5.0
userTags	List	query	Optional. The user tag.		4.5.0

API Response

Sample Response

```
{
```

```

"inventories": [
  {
    "uuid": "4eb255bf21ff3b3384768b06aa612818",
    "softwareName": "IPsec",
    "currentVersion": "4.5.2",
    "latestVersion": "5.9.4"
  }
]
}

```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventories	List	See inventories	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.0
softwareName	String	The VPC software name.	4.5.0
currentVersion	String	The current version.	4.5.0
latestVersion	String	The latest version.	4.5.0

#error

Name	Type	Description	Starting version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0

Name	Type	Description	Starting version
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
GetVirtualRouterSoftwareVersionAction action = new GetVirtualRouterSoftwareVersionAction();
action.uuid = "c25bedf80bde367a86344add1264ed06";
action.softwareName = "IPsec";
action.needUpdate = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVirtualRouterSoftwareVersionAction.Result res = action.call();
```

Python SDK

```
GetVirtualRouterSoftwareVersionAction action = GetVirtualRouterSoftwareVersionAction()
action.uuid = "c25bedf80bde367a86344add1264ed06"
action.softwareName = "IPsec"
action.needUpdate = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVirtualRouterSoftwareVersionAction.Result res = action.call()
```

5.3.5.19 GetRouteTableVpcVRouterCandidate

API Request

URLs

```
POST zstack/v1/vpc/virtual-routers/get-vpc-candidate
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
```

```
"params": {},
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/vpc/
virtual-routers/get-vpc-candidate
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	body	Optional.		4.2.0
userTags	List	body	Optional.		4.2.0

API Response**Sample Response**

```
{
  "inventories": [
    {
      "uuid": "d7f0b3eeb8b63de29be7ecd1f37e4538",
      "name": "trigger",
      "description": "this is a scheduler trigger",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.2.0
inventory	List	See inventories .	4.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.2.0
description	String	The brief description of the error.	4.2.0
details	String	The details about the error.	4.2.0
elaboration	String	The reserved field. Default value: null.	4.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.2.0

#inventories

Name	Type	Description	Starting Version
publicNetworkUuid	String		4.2.0
virtualRouterVips	List		4.2.0
applianceVmType	String		4.2.0
managementNetworkUuid	String		4.2.0
defaultRouteL3NetworkUuid	String		4.2.0
status	String		4.2.0
agentPort	Integer		4.2.0
haStatus	String		4.2.0

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.2.0
name	String	The resource name.	4.2.0
description	String	The detailed description of the resource.	4.2.0
zoneUuid	String	The zone UUID.	4.2.0
clusterUuid	String	The cluster UUID.	4.2.0
imageUuid	String	The image UUID.	4.2.0
hostUuid	String	The host UUID.	4.2.0
lastHostUuid	String		4.2.0
instanceOfferingUuid	String	The instance offering UUID.	4.2.0
rootVolumeUuid	String	The root volume UUID.	4.2.0
platform	String		4.2.0
defaultL3NetworkUuid	String		4.2.0
type	String		4.2.0
hypervisorType	String		4.2.0
memorySize	Long		4.2.0
cpuNum	Integer		4.2.0
cpuSpeed	Long		4.2.0
allocatorStrategy	String		4.2.0
createDate	Timestamp	The creation time.	4.2.0
lastOpDate	Timestamp	The last operation time.	4.2.0
state	String		4.2.0
dns	List	See dns .	4.2.0
haRef	List	See haRef .	4.2.0
vmNics	List	See vmNics .	4.2.0
allVolumes	List	See allVolumes .	4.2.0
vmCdRoms	List	See vmCdRoms .	4.2.0

#dns

Name	Type	Description	Starting Version
id	Long		4.2.0
vpcRouterUuid	String		4.2.0
dns	String		4.2.0
createDate	Timestamp	The creation time.	4.2.0
lastOpDate	Timestamp	The last operation time	4.2.0

#haRef

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.2.0
vpcHaRouterUuid	String		4.2.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.2.0
vmInstanceUuid	String	The VM instance UUID.	4.2.0
l3NetworkUuid	String	The L3 network UUID.	4.2.0
ip	String	The IP address.	4.2.0
mac	String	The MAC address.	4.2.0
hypervisorType	String	The hypervisor type.	4.2.0
netmask	String	The netmask.	4.2.0
gateway	String	The gateway.	4.2.0
metaData	String		4.2.0
ipVersion	Integer	The IP version.	4.2.0
deviceId	Integer	The device ID.	4.2.0
type	String	The NIC type.	4.2.0
createDate	Timestamp	The creation time.	4.2.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation time .	4.2.0
usedIps	List	See usedIps .	4.2.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.2.0
ipRangeUuid	String	The IP range UUID.	4.2.0
l3NetworkUuid	String	The L3 network UUID.	4.2.0
ipVersion	Integer	The IP version.	4.2.0
ip	String	The IP address.	4.2.0
netmask	String	The netmask.	4.2.0
gateway	String	The gateway.	4.2.0
usedFor	String		4.2.0
ipInLong	long		4.2.0
vmNicUuid	String	The VM NIC UUID.	4.2.0
createDate	Timestamp	The creation time.	4.2.0
lastOpDate	Timestamp	The last operation time .	4.2.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.2.0
name	String	The resource name.	4.2.0
description	String	The detailed description of the resource.	4.2.0
primaryStorageUuid	String	The primary storage UUID.	4.2.0
vmInstanceUuid	String	The VM UUID.	4.2.0
diskOfferingUuid	String	The disk offering UUID .	4.2.0

Name	Type	Description	Starting Version
rootImageUuid	String	The root volume image UUID.	4.2.0
installPath	String	The installation path of the volume on the primary storage.	4.2.0
type	String	The volume type.	4.2.0
format	String	The volume type.	4.2.0
size	Long	The volume size.	4.2.0
actualSize	Long	The actual size of the volume.	4.2.0
deviceId	Integer		4.2.0
state	String	Indicates whether the disk is enabled.	4.2.0
status	String	The volume status.	4.2.0
createDate	Timestamp	The creation time.	4.2.0
lastOpDate	Timestamp	The last update time.	4.2.0
isShareable	Boolean	Indicates whether the volume is a shared volume.	4.2.0
volumeQos	String	The volume QoS, for example, total=1048576	4.2.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.2.0
vmInstanceUuid	String	The VM instance UUID.	4.2.0
deviceId	Integer	The device ID.	4.2.0
isoUuid	String	The ISO image UUID.	4.2.0
isoInstallPath	String	The installation path of the ISO image.	4.2.0
name	String	The resource name.	4.2.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	4.2.0
createDate	Timestamp	The creation time.	4.2.0
lastOpDate	Timestamp	The last operation time.	4.2.0

SDK Sample

Java SDK

```
GetRouteTableVpcVRouterCandidateAction action = new GetRouteTableVpcVRouterCandidateAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetRouteTableVpcVRouterCandidateAction.Result res = action.call();
```

Python SDK

```
GetRouteTableVpcVRouterCandidateAction action = GetRouteTableVpcVRouterCandidateAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetRouteTableVpcVRouterCandidateAction.Result res = action.call()
```

5.3.6 OSPF Operations

5.3.6.1 CreateVRouterOspfArea

API Request

URLs

```
POST zstack/v1/routerArea
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "areaId": "1.1.1.1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edeb53ca0678c" \
-X POST -d '{"params":{"areaId":"1.1.1.1"}}' http://localhost:8080/zstack/v1/routerArea
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
areald	String	body (contained in the params structure)	The area ID.		3.4.0
areaAuth	String	body (contained in the params structure)	Optional. The authentication mode of the OSPF area.		3.4.0
areaType	String	body (contained in the params structure)	Optional. The area type.		3.4.0
password	String	body (contained in the params structure)	Optional. The password when the authentication mode is plaintext.		3.4.0
keyId	Integer	body (contained in the params structure)	Optional. The key ID when the authentication mode is MD5 checksum.		3.4.0
resourceUuid	String	body (contained in the params structure)	Optional. The area resource UUID.		3.4.0

Name	Type	Location	Description	Optional Value	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d82d2b6108b0331b90161b939987e5ae",
    "areaId": "1",
    "type": "Stub",
    "authentication": "Plaintext",
    "password": "password",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
inventory	RouterAreaInventory	See inventory .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
areald	String		3.4.0
type	String		3.4.0
authentication	String		3.4.0
password	String		3.4.0
keyId	Integer		3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

SDK Sample

Java SDK

```
CreateVRouterOspfAreaAction action = new CreateVRouterOspfAreaAction
();
action.areaId = "1.1.1.1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreateVRouterOspfAreaAction.Result res = action.call();
```

Python SDK

```
CreateVRouterOspfAreaAction action = CreateVRouterOspfAreaAction()
action.areaId = "1.1.1.1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVRouterOspfAreaAction.Result res = action.call()
```

5.3.6.2 DeleteVRouterOspfArea

API Request

URLs

```
DELETE zstack/v1/routerArea/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
routerArea/8c7d2c714e1231549dd2a66a3f140ae5
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.4.0
deleteMode	String	body	Optional. The delete mode.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
```



```
"error": {
  "code": "SYS.1001",
  "description": "A message or a operation timeout",
  "details": "Create VM on KVM timeout after 300s"
}
```

SDK Sample

Java SDK

```
DeleteVRouterOspfAreaAction action = new DeleteVRouterOspfAreaAction
();
action.uuid = "8c7d2c714e1231549dd2a66a3f140ae5";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVRouterOspfAreaAction.Result res = action.call();
```

Python SDK

```
DeleteVRouterOspfAreaAction action = DeleteVRouterOspfAreaAction()
action.uuid = "8c7d2c714e1231549dd2a66a3f140ae5"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteVRouterOspfAreaAction.Result res = action.call()
```

5.3.6.3 GetVRouterOspfNeighbor

API Request

URLs

```
GET zstack/v1/routerArea/{vRouterUuid}/neighbor
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/routerArea/
dfb6151287b632599becfc5716b8c374/neighbor
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vRouterUuid	String	url	The vRouter UUID.		3.4.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		3.4.0
userTags	List	query	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "neighbors": [
    null,
    null
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
neighbors	List	See neighbors .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#neighbors

Name	Type	Description	Starting Version
id	String		3.4.0
priority	String		3.4.0
state	String		3.4.0
deadTime	String		3.4.0
neighborAddress	String		3.4.0
device	String		3.4.0

SDK Sample

Java SDK

```
GetVRouterOspfNeighborAction action = new GetVRouterOspfNeighborAction();
action.vRouterUuid = "dfb6151287b632599becfc5716b8c374";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVRouterOspfNeighborAction.Result res = action.call();
```

Python SDK

```
GetVRouterOspfNeighborAction action = GetVRouterOspfNeighborAction()
action.vRouterUuid = "dfb6151287b632599becfc5716b8c374"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVRouterOspfNeighborAction.Result res = action.call()
```

5.3.6.4 QueryVRouterOspfArea

API Request

URLs

```
GET zstack/v1/routerArea
```

```
GET zstack/v1/routerArea/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/routerArea?q=areaId=1.1.1.1
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/routerArea/
aba25a3e8e0e3b46bcb48042812eb38d
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVRouterOspfArea**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "24b7fb05b43538238f2071c81255fb35",
      "areaId": "1",
      "type": "Standard",
      "authentication": "None",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
inventories	List	See inventories .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
areald	String		3.4.0
type	String		3.4.0
authentication	String		3.4.0
password	String		3.4.0
keyId	Integer		3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

SDK Sample

Java SDK

```
QueryVRouterOspfAreaAction action = new QueryVRouterOspfAreaAction();
action.conditions = asList("areaId=1.1.1.1");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVRouterOspfAreaAction.Result res = action.call();
```

Python SDK

```
QueryVRouterOspfAreaAction action = QueryVRouterOspfAreaAction()
action.conditions = ["areaId=1.1.1.1"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVRouterOspfAreaAction.Result res = action.call()
```

5.3.6.5 GetVRouterRouterId

API Request

URLs

```
GET zstack/v1/routerArea/{vRouterUuid}/routerid
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/
routerArea/9b8b08cd553c3fd1ba4efc3e6c98512d/routerid?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vRouterUuid	String	url	The vRouter UUID.		3.4.0
systemTags	List	query	Optional. The system tags.		3.4.0
userTags	List	query	Optional. The user tags.		3.4.0



Note:

- When you obtain a router ID in ZStack Cloud, you can obtain the routerId of the router in OSPF by adding the **routeProtocolRouterId** option to **SystemTags**.
 - Format of the **routeProtocolRouterId** option: `routeProtocolRouterId::xxxx`
 - Example: `routeProtocolRouterId::1.1.1.1`

API Response

Sample Response

```
{
  "routerId": "10.10.10.1"
}
```

Name	Type	Description	Starting Version
routerId	String		3.4.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root	3.4.0

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

SDK Sample

Java SDK

```
GetVRouterRouterIdAction action = new GetVRouterRouterIdAction();  
action.vRouterUuid = "9b8b08cd553c3fd1ba4efc3e6c98512d";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
GetVRouterRouterIdAction.Result res = action.call();
```

Python SDK

```
GetVRouterRouterIdAction action = GetVRouterRouterIdAction()  
action.vRouterUuid = "9b8b08cd553c3fd1ba4efc3e6c98512d"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
GetVRouterRouterIdAction.Result res = action.call()
```

5.3.6.6 SetVRouterRouterId

API Request

URLs

```
POST zstack/v1/routerArea/{vRouterUuid}/routerid
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "params": {  
    "routerId": "10.10.10.1"  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"routerId":"10.10.10.1"}}' http://
localhost:8080/zstack/v1/routerArea/7b579cbb55f73f62a5afcfe83c823b7b/
routerid
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vRouterUuid	String	url	The vRouter UUID.		3.4.0
routerId	String	body (contained in the params structure)	The router ID in IP address format.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

**Note:**

- When you set a router ID in ZStack Cloud, you can use the routerID of the router in OSPF by adding the **routeProtocolRouterId** option to **SystemTags**.
 - Format of the **routeProtocolRouterId** option: `routeProtocolRouterId::xxxx`
 - Example: `routeProtocolRouterId::1.1.1.1`

API Response

Sample Response

```
{
  "routerId": "10.10.10.1"
}
```

Name	Type	Description	Starting Version
routerId	String		3.4.0
error	ErrorCode	The error code. If not null, the operation	3.4.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

SDK Sample

Java SDK

```
SetVRouterRouterIdAction action = new SetVRouterRouterIdAction();
action.vRouterUuid = "7b579cbb55f73f62a5afcfe83c823b7b";
action.routerId = "10.10.10.1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVRouterRouterIdAction.Result res = action.call();
```

Python SDK

```
SetVRouterRouterIdAction action = SetVRouterRouterIdAction()
action.vRouterUuid = "7b579cbb55f73f62a5afcfe83c823b7b"
action.routerId = "10.10.10.1"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetVRouterRouterIdAction.Result res = action.call()
```

5.3.6.7 AddVRouterNetworksToOspfArea

API Request

URLs

```
POST zstack/v1/routerArea/{routerAreaUuid}/router/{vRouterUuid}/
addnetworks
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "l3NetworkUuids": [
      "080a5356667a34e3bda18a157e3743ec"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"l3NetworkUuids":
["080a5356667a34e3bda18a157e3743ec"]}}' http://localhost:8080/zstack/
v1/routerArea/2785aa6a32603b7a8a24b5a143975123/router/
beaad9552cd531b7b59c631d0b0f7eb9/addnetworks
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
routerAreaUuid	String	url	The router area UUID.		3.4.0
vRouterUuid	String	url	The VPC vRouter UUID.		3.4.0

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUids	List	body (contained in the params structure)	The L3 network UUID.		3.4.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.4.0
tagUids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.4.0
systemTags	List	body	Optional. The vRouter system tags.		3.4.0
userTags	List	body	Optional. The vRouter user tags.		3.4.0

API Response

Sample Response

```
{
  "inventory": {
    "dns": [
      {
        "vpcRouterUuid": "acc537da2e003f349ed4cd9cf53eaab4",
        "dns": "8.8.8.8"
      }
    ],
    "routerAreaRef": [
      {
        "uuid": "b3a4930e15fa358b9a2943b320ecf886",
        "vRouterUuid": "b02959e102353bfd9fd14a149fa20565",
        "routerAreaUuid": "d397110ba793345797e33bc6ed3db65f",
        "l3NetworkUuid": "202258e4c4893f85a6b5baa7b8b55bb0",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "applianceVmType": "vpcvrouter",
    "managementNetworkUuid": "b877c7f5faca31c2a31575a70352ebc8",
    "status": "Connected",
    "agentPort": 7272.0,
    "uuid": "acc537da2e003f349ed4cd9cf53eaab4",
  }
}
```

```

"name": "TestVPC",
"description": "this is a vpc for test",
"zoneUuid": "6ccc1079e90737768bf679ce611f9fe7",
"clusterUuid": "b15eecfa47083749811d79e2780f6f91",
"imageUuid": "15790865172133e1b8a2d7a1374d5732",
"hostUuid": "d332dc4237c332adbc2079bdb904ca36",
"lastHostUuid": "8d79aaec39033ed89facfb3089715d31",
"instanceOfferingUuid": "274cf5e3e2123fb1a7309ca9273d1436",
"rootVolumeUuid": "7dc7594d739c39a5ab89806e96b722f6",
"platform": "Linux",
"defaultL3NetworkUuid": "5c8c85ba45c83490b2cf8db490f483c0",
"type": "ApplianceVm",
"hypervisorType": "KVM",
"memorySize": 8.589934592E9,
"cpuNum": 4.0,
"allocatorStrategy": "LastHostPreferredAllocatorStrategy",
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM",
"state": "Running",
"vmNics": [
  {
    "uuid": "72cc686cd7b83b53aad2036b99a84c07",
    "vmInstanceUuid": "acc537da2e003f349ed4cd9cf53eaab4",
    "usedIpUuid": "92683b734202356d8fa8e6cb7447b4e1",
    "l3NetworkUuid": "69c3dba93a423bf4a1cecbdb86da9261b",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "hypervisorType": "KVM",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"allVolumes": [
  {
    "uuid": "7dc7594d739c39a5ab89806e96b722f6",
    "name": "Root-Volume-For-VM-acc537da2e003f349ed4cd9cf53eaab4",
    "primaryStorageUuid": "5d93dbda7e4e386891657de613d9a28d",
    "vmInstanceUuid": "acc537da2e003f349ed4cd9cf53eaab4",
    "diskOfferingUuid": "52bc981286ea3087b9969e47aa520fac",
    "rootImageUuid": "15790865172133e1b8a2d7a1374d5732",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-7dc7594d739c39a5ab89806e96b722f6/7dc7594d73
9c39a5ab89806e96b722f6.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
inventory	VpcRouterVmInventory	See inventory .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
publicNetworkUuid	String		3.4.0

Name	Type	Description	Starting Version
virtualRouterVips	List		3.4.0
applianceVmType	String		3.4.0
managementNetworkUuid	String		3.4.0
defaultRouteL3NetworkUuid	String		3.4.0
status	String		3.4.0
agentPort	Integer		3.4.0
uuid	String	The resource UUID.	3.4.0
name	String	The resource name.	3.4.0
description	String	The detailed description of the resource.	3.4.0
zoneUuid	String	The zone UUID.	3.4.0
clusterUuid	String	The cluster UUID.	3.4.0
imageUuid	String	The image UUID.	3.4.0
hostUuid	String	The host UUID.	3.4.0
lastHostUuid	String		3.4.0
instanceOfferingUuid	String	The instance offering UUID.	3.4.0
rootVolumeUuid	String	The root volume UUID.	3.4.0
platform	String		3.4.0
defaultL3NetworkUuid	String		3.4.0
type	String		3.4.0
hypervisorType	String		3.4.0
memorySize	Long		3.4.0
cpuNum	Integer		3.4.0
cpuSpeed	Long		3.4.0
allocatorStrategy	String		3.4.0
createDate	Timestamp	The creation date.	3.4.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.4.0
state	String		3.4.0
dns	List	See dns .	3.4.0
routerAreaRef	List	See routerAreaRef .	3.4.0
vmNics	List	See vmNics .	3.4.0
allVolumes	List	See allVolumes .	3.4.0
vmCdRoms	List	See vmCdRoms .	3.4.0

#dns

Name	Type	Description	Starting Version
id	Long		3.4.0
vpcRouterUuid	String		3.4.0
dns	String		3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

#routerAreaRef

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
vRouterUuid	String		3.4.0
routerAreaUuid	String		3.4.0
l3NetworkUuid	String	The L3 network UUID.	3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	3.4.0
l3NetworkUuid	String	The L3 network UUID.	3.4.0
ip	String		3.4.0
mac	String		3.4.0
hypervisorType	String		3.4.0
netmask	String		3.4.0
gateway	String		3.4.0
metaData	String		3.4.0
ipVersion	Integer		3.4.0
deviceId	Integer		3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0
usedIps	List	See usedIps .	3.4.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
ipRangeUuid	String	The IP range UUID.	3.4.0
l3NetworkUuid	String	The L3 network UUID.	3.4.0
ipVersion	Integer		3.4.0
ip	String		3.4.0
netmask	String		3.4.0
gateway	String		3.4.0
usedFor	String		3.4.0
ipInLong	long		3.4.0
vmNicUuid	String	The VM NIC UUID.	3.4.0
createDate	Timestamp	The creation date.	3.4.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.4.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
name	String	The resource name.	3.4.0
description	String	The detailed description of the resource.	3.4.0
primaryStorageUuid	String	The primary storage UUID.	3.4.0
vmInstanceUuid	String	The VM instance UUID.	3.4.0
diskOfferingUuid	String	The disk offering UUID.	3.4.0
rootImageUuid	String		3.4.0
installPath	String		3.4.0
type	String		3.4.0
format	String		3.4.0
size	Long		3.4.0
actualSize	Long		3.4.0
deviceId	Integer		3.4.0
state	String		3.4.0
status	String		3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0
isShareable	Boolean		3.4.0
volumeQos	String		3.4.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
vmInstanceUuid	String	The VM instance UUID.	3.4.0
deviceId	Integer		3.4.0
isoUuid	String		3.4.0
isoInstallPath	String		3.4.0
name	String	The resource name.	3.4.0
description	String	The detailed description of the resource.	3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

SDK Sample

Java SDK

```
AddVRouterNetworksToOspfAreaAction action = new AddVRouterNetworksToOspfAreaAction();
action.routerAreaUuid = "2785aa6a32603b7a8a24b5a143975123";
action.vRouterUuid = "beaad9552cd531b7b59c631d0b0f7eb9";
action.l3NetworkUuids = asList("080a5356667a34e3bda18a157e3743ec");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddVRouterNetworksToOspfAreaAction.Result res = action.call();
```

Python SDK

```
AddVRouterNetworksToOspfAreaAction action = AddVRouterNetworksToOspfAreaAction()
action.routerAreaUuid = "2785aa6a32603b7a8a24b5a143975123"
action.vRouterUuid = "beaad9552cd531b7b59c631d0b0f7eb9"
action.l3NetworkUuids = ["080a5356667a34e3bda18a157e3743ec"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddVRouterNetworksToOspfAreaAction.Result res = action.call()
```

5.3.6.8 RemoveVRouterNetworksFromOspfArea

API Request

URLs

```
DELETE zstack/v1/routerArea/networks
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/routerArea/networks?
```

Request Parameters

Name	Description	Location	Description	Optional Value	Starting Version
uuids	List	body	The UUID in the network area table.		3.4.0
deleteMode	String	body	Optional. The delete mode.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
RemoveVRouterNetworksFromOspfAreaAction action = new RemoveVRou
terNetworksFromOspfAreaAction();
action.uuids = asList("ad747eefbaf534d4a46822cc02fd329a");
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveVRouterNetworksFromOspfAreaAction.Result res = action.call();
```

Python SDK

```
RemoveVRouterNetworksFromOspfAreaAction action = RemoveVRouterNetwork
sFromOspfAreaAction()
action.uuids = [ad747eefbaf534d4a46822cc02fd329a]
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveVRouterNetworksFromOspfAreaAction.Result res = action.call()
```

5.3.6.9 UpdateVRouterOspfArea

API Request

URLs

```
PUT zstack/v1/routerArea/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVRouterOspfArea": {
    "areaType": "Standard"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"updateVRouterOspfArea":{"areaType":"Standard"}}' http://localhost:8080/zstack/v1/routerArea/35bc0bb59575326c822b07a945b48a51/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.4.0
areaAuth	String	body (contained in the updateVRouterOspfArea structure)	Optional. The area authentication mode.		3.4.0
areaType	String	body (contained in the updateVRouterOspfArea structure)	Optional. The area type.		3.4.0
password	String	body (contained in the updateVRouterOspfArea structure)	Optional. The password that is used for area authentication.		3.4.0
keyId	Integer	body (contained in the updateVRouterOspfArea structure)	Optional. The key ID that is used for area authentication.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b90552421b6a390fa55da5b489a53e32",
    "areaId": "1",
    "type": "Stub",
    "authentication": "MD5",
    "keyId": 128.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
inventory	RouterAreaInventory	See inventory .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current	3.4.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
areald	String		3.4.0
type	String		3.4.0
authentication	String		3.4.0
password	String		3.4.0
keyId	Integer		3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

SDK Sample

Java SDK

```
UpdateVRouterOspfAreaAction action = new UpdateVRouterOspfAreaAction
();
action.uuid = "35bc0bb59575326c822b07a945b48a51";
action.areaType = "Standard";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVRouterOspfAreaAction.Result res = action.call();
```

Python SDK

```
UpdateVRouterOspfAreaAction action = UpdateVRouterOspfAreaAction()
action.uuid = "35bc0bb59575326c822b07a945b48a51"
action.areaType = "Standard"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVRouterOspfAreaAction.Result res = action.call()
```

5.3.6.10 QueryVRouterOspfNetwork**API Request**

URLs

```
GET zstack/v1/routerArea/network
```



```
GET zstack/v1/routerArea/networkR/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/routerArea/network?
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/routerArea/networkR/
cbdc3b6f584539508a95f2fe8fc0d6bb
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVRouterOspfNetwork**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "fb2a103989cd3ad581c3ad6931765a2e",
      "vRouterUuid": "2449c7b9976c301bb5917cf25e021e65",
      "routerAreaUuid": "e53cb89baf223faf9b2683752c80a3a5",
      "l3NetworkUuid": "937b798289cf30bf884600143b5dfc0d",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
inventories	List	See inventories .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
vRouterUuid	String		3.4.0
routerAreaUuid	String		3.4.0
l3NetworkUuid	String	The L3 network UUID.	3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

SDK Sample

Java SDK

```
QueryVRouterOspfNetworkAction action = new QueryVRouterOspfNetworkAction();
```

```
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVRouterOspfNetworkAction.Result res = action.call();
```

Python SDK

```
QueryVRouterOspfNetworkAction action = QueryVRouterOspfNetworkAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVRouterOspfNetworkAction.Result res = action.call()
```

5.3.7 Multicast Routing Operations

5.3.7.1 CreateMulticastRouter

API Request

URLs

```
POST zstack/v1/multicast/virtual-routers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vpcRouterVmUuid": "6fe7772600d039bf80d8e2359fcef61a",
    "description": "this is a header router for test"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vpcRouterVmUuid":"6fe7772600d039bf80d8e2359fcef61a","description":"this
is a header router for test"}}' http://localhost:8080/zstack/v1/
multicast/virtual-routers
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vpcRouterVmUuid	String	body (contained in the params structure)			3.7.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.7.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.7.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "974c38ae483737c3b4ded18de56773b6",
    "description": "test for header",
    "rpGroups": [
      {
        "uuid": "0bda384377d53656b89270948f795ab8",
        "multicastRouterUuid": "974c38ae483737c3b4ded18de56773b6",
        "rpAddress": "1.2.3.4",
        "groupAddress": "239.1.1.1/32"
      }
    ],
    "vpcVrs": []
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	MulticastRouterInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0

Name	Type	Description	Starting Version
vpcRouterUuid	String		3.7.0
description	String	The detailed description of the resource.	3.7.0
state	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
rpGroups	List	See rpGroups .	3.7.0
vpcVrs	List	See vpcVrs .	3.7.0

#rpGroups

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
multicastRouterUuid	String		3.7.0
rpAddress	String		3.7.0
groupAddress	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

#vpcVrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vpcRouterUuid	String		3.7.0

SDK Sample

Java SDK

```
CreateMulticastRouterAction action = new CreateMulticastRouterAction
();
action.vpcRouterVmUuid = "6fe7772600d039bf80d8e2359fcef61a";
action.description = "this is a header router for test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreateMulticastRouterAction.Result res = action.call();
```

Python SDK

```
CreateMulticastRouterAction action = CreateMulticastRouterAction()
action.vpcRouterVmUuid = "6fe7772600d039bf80d8e2359fcef61a"
action.description = "this is a header router for test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateMulticastRouterAction.Result res = action.call()
```

5.3.7.2 DeleteMulticastRouter

API Request

URLs

```
DELETE zstack/v1/multicast/virtual-routers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/multicast/virtual-routers/
cce17d3b823933a8b0694af5159fed4d?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
deleteMode	String	body	Optional. The delete mode.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteMulticastRouterAction action = new DeleteMulticastRouterAction
();
action.uuid = "cce17d3b823933a8b0694af5159fed4d";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteMulticastRouterAction.Result res = action.call();
```

Python SDK

```
DeleteMulticastRouterAction action = DeleteMulticastRouterAction()
action.uuid = "cce17d3b823933a8b0694af5159fed4d"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteMulticastRouterAction.Result res = action.call()
```

5.3.7.3 QueryMulticastRouter

API Request

URLs

```
GET zstack/v1/multicast/virtual-routers
GET zstack/v1/multicast/virtual-routers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/multicast/virtual-routers?
q=name=multicastRouter
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```



```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/multicast/virtual-
routers/83791299370039dba6b9318e46dfcf69
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryMulticastRouter**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "df41b45fd5213ceab084e5b733886ac0",
      "description": "test for header",
      "rpGroups": [
        {
          "uuid": "08f7436a526b3cbab51ca95d9e578d27",
          "multicastRouterUuid": "df41b45fd5213ceab084e5b733886ac0",
          "rpAddress": "1.2.3.4",
          "groupAddress": "239.1.1.1/32"
        }
      ],
      "vpcVrs": []
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventories	List	See inventories .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vpcRouterUuid	String		3.7.0
description	String	The detailed description of the resource.	3.7.0
state	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
rpGroups	List	See rpGroups .	3.7.0
vpcVrs	List	See vpcVrs .	3.7.0

#rpGroups

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
multicastRouterUuid	String		3.7.0
rpAddress	String		3.7.0

Name	Type	Description	Starting Version
groupAddress	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

#vpcVrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vpcRouterUuid	String		3.7.0

SDK Sample

Java SDK

```
QueryMulticastRouterAction action = new QueryMulticastRouterAction();
action.conditions = asList("name=multicastRouter");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryMulticastRouterAction.Result res = action.call();
```

Python SDK

```
QueryMulticastRouterAction action = QueryMulticastRouterAction()
action.conditions = ["name=multicastRouter"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryMulticastRouterAction.Result res = action.call()
```

5.3.7.4 ChangeMulticastRouterState**API Request**

URLs

```
PUT zstack/v1/multicast/virtual-routers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeMulticastRouterState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeMulticastRouterState":{"stateEvent":"enable"}}'
http://localhost:8080/zstack/v1/multicast/virtual-
routers/0cbf995f538b3aed855e3e50ea38eb0c/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
stateEvent	String	body (contained in the changeMulticastRouterState structure)		- enable - disable	3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "93ce20a6a51932ce8f544033d5cdca3c",
    "description": "test for header",
    "rpGroups": [
      {
        "uuid": "3ef422d857ff3a09a6c000900ac37f78",
        "multicastRouterUuid": "93ce20a6a51932ce8f544033d5cdca3c",
        "rpAddress": "1.2.3.4",
        "groupAddress": "239.1.1.1/32"
      }
    ]
  }
}
```

```

    ],
    "vpcVrs": []
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	MulticastRouterInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vpcRouterUuid	String		3.7.0
description	String	The detailed description of the resource.	3.7.0
state	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
rpGroups	List	See rpGroups .	3.7.0
vpcVrs	List	See vpcVrs .	3.7.0

#rpGroups

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
multicastRouterUuid	String		3.7.0
rpAddress	String		3.7.0
groupAddress	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

#vpcVrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vpcRouterUuid	String		3.7.0

SDK Sample

Java SDK

```
ChangeMulticastRouterStateAction action = new ChangeMulticastRouterStateAction();
action.uuid = "0cbf995f538b3aed855e3e50ea38eb0c";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ChangeMulticastRouterStateAction.Result res = action.call();
```

Python SDK

```
ChangeMulticastRouterStateAction action = ChangeMulticastRoute
rStateAction()
action.uuid = "0cbf995f538b3aed855e3e50ea38eb0c"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeMulticastRouterStateAction.Result res = action.call()
```

5.3.7.5 GetVpcMulticastRoute

API Request

URLs

```
GET zstack/v1/multicast/virtual-routers/{uuid}/routes
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/multicast/virtual-routers/
a880287e652d3137a9f7349dc7f65a49/routes
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
systemTags	List	query	Optional.		3.7.0
userTags	List	query	Optional.		3.7.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "sourceAddress": "1.2.3.4",
      "groupAddress": "239.1.1.1",
      "ingressInterfaces": "eth0",
      "egressInterfaces": "eth1"
    }
  ]
}
```

```

    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventories	List	See inventories .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventories

Name	Type	Description	Starting Version
sourceAddress	String		3.7.0

Name	Type	Description	Starting Version
groupAddress	String		3.7.0
ingressInterfaces	String		3.7.0
egressInterfaces	String		3.7.0

SDK Sample

Java SDK

```
GetVpcMulticastRouteAction action = new GetVpcMulticastRouteAction();
action.uuid = "a880287e652d3137a9f7349dc7f65a49";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVpcMulticastRouteAction.Result res = action.call();
```

Python SDK

```
GetVpcMulticastRouteAction action = GetVpcMulticastRouteAction()
action.uuid = "a880287e652d3137a9f7349dc7f65a49"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVpcMulticastRouteAction.Result res = action.call()
```

5.3.7.6 AddRendezvousPointToMulticastRouter

API Request

URLs

```
POST zstack/v1/multicast/virtual-routers/{uuid}/RendezvousPoint
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "rpAddress": "1.2.3.4",
    "groupAddress": "239.0.0.1/32"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"rpAddress":"1.2.3.4","groupAddress":"239.0.0.1/32"}}'
http://localhost:8080/zstack/v1/multicast/virtual-routers/
fae38e0915973679ac76cc40da3e2f51/RendezvousPoint
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
rpAddress	String	body (contained in the params structure)			3.7.0
groupAddress	String	body (contained in the params structure)			3.7.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.7.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "9127988e024a3a87865efcd1381d8fd4",
    "description": "test for header",
```

```

    "rpGroups": [
      {
        "uuid": "68953d6bf3913f0188ddf66656daedaa",
        "multicastRouterUuid": "9127988e024a3a87865efcd1381d8fd4",
        "rpAddress": "1.2.3.4",
        "groupAddress": "239.1.1.1/32"
      }
    ],
    "vpcVrs": []
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	MulticastRouterInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.7.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vpcRouterUuid	String		3.7.0
description	String	The detailed description of the resource.	3.7.0
state	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
rpGroups	List	See rpGroups .	3.7.0
vpcVrs	List	See vpcVrs .	3.7.0

#rpGroups

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
multicastRouterUuid	String		3.7.0
rpAddress	String		3.7.0
groupAddress	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

#vpcVrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
vpcRouterUuid	String		3.7.0

SDK Sample

Java SDK

```
AddRendezvousPointToMulticastRouterAction action = new AddRendezv
ousPointToMulticastRouterAction();
action.uuid = "fae38e0915973679ac76cc40da3e2f51";
action rpAddress = "1.2.3.4";
action.groupAddress = "239.0.0.1/32";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddRendezvousPointToMulticastRouterAction.Result res = action.call();
```

Python SDK

```
AddRendezvousPointToMulticastRouterAction action = AddRendezv
ousPointToMulticastRouterAction()
action.uuid = "fae38e0915973679ac76cc40da3e2f51"
action rpAddress = "1.2.3.4"
action.groupAddress = "239.0.0.1/32"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddRendezvousPointToMulticastRouterAction.Result res = action.call()
```

5.3.7.7 RemoveRendezvousPointFromMulticastRouter

API Request

URLs

```
DELETE zstack/v1/multicast/virtual-routers/{uuid}/RendezvousPoint
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/multicast/virtual-routers/
b0efeaec578931d49c6c8b457287e1db/RendezvousPoint?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.7.0
rpAddress	String	body			3.7.0
groupAddress	String	body			3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
deleteMode	String	body	Optional. The delete mode.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveRendezvousPointFromMulticastRouterAction action = new RemoveRendezvousPointFromMulticastRouterAction();
action.uuid = "b0efeaec578931d49c6c8b457287e1db";
action rpAddress = "1.2.3.4";
action.groupAddress = "239.1.1.1/32";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveRendezvousPointFromMulticastRouterAction.Result res = action.call();
```

Python SDK

```
RemoveRendezvousPointFromMulticastRouterAction action = RemoveRendezvousPointFromMulticastRouterAction()
action.uuid = "b0efeaec578931d49c6c8b457287e1db"
action rpAddress = "1.2.3.4"
action.groupAddress = "239.1.1.1/32"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveRendezvousPointFromMulticastRouterAction.Result res = action.  
call()
```

5.3.8 Policy Routing Operations

5.3.8.1 CreatePolicyRouteRuleSet

API Request

URLs

```
POST zstack/v1/policy-routes/rulesets
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "params": {  
    "name": "ruleSet",  
    "description": "description",  
    "vRouterUuid": "85eb5d9f50bc3919b793b3caf9f3e859"  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X POST -d '{"params":  
{"name":"ruleSet","description":"description","vRouterUuid":"85eb5d9f50bc3919b793b3caf9f3e859"}'  
http://localhost:8080/zstack/v1/policy-routes/rulesets
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.6.0
vRouterUuid	String	body (contained in the params structure)	The vRouter UUID.		3.6.0
type	String	body (contained in the params structure)	Optional. The type.	- User - EgressWhereComeFrom	3.9.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "name",
    "description": "example-des",
    "rules": [
      {
        "uuid": "74cc4fed46f633f2a618b0e06d122377",
        "ruleNumber": 1.0,
        "ruleSetUuid": "00693e31fa3b3e3fba017ed714c02cdf",
        "tableUuid": "b273e0c273c03559872efa272194492c",
        "destIp": "192.168.1.1",
        "sourceIp": "10.0.0.1",
        "destPort": "22",
        "sourcePort": "80",

```



```

    "protocol": "tcp",
    "state": "enable"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	PolicyRouteRuleSetInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
type	String		3.9.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
rules	List	See rules	3.6.0
l3Refs	List	See l3Refs .	3.9.0

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
ruleNumber	int	The priority.	3.6.0
ruleSetUuid	String	The UUID of the policy route rule set.	3.6.0
tableUuid	String	The policy route table UUID.	3.6.0
destIp	String	The destination IP address.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
protocol	PolicyRouteRuleProtocol	See protocol .	3.6.0
state	PolicyRouteRuleState	See state .	3.6.0

#protocol

Name	Type	Description	Starting Version
tcp	PolicyRouteRuleProtocol		3.6.0
udp	PolicyRouteRuleProtocol		3.6.0

#state

Name	Type	Description	Starting Version
enable	PolicyRouteRuleState		3.6.0
disable	PolicyRouteRuleState		3.6.0

#l3Refs

Name	Type	Description	Starting Version
id	long		3.9.0
l3NetworkUuid	String	The L3 network UUID.	3.9.0
ruleSetUuid	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
CreatePolicyRouteRuleSetAction action = new CreatePolicyRouteRuleSetAction();
action.name = "ruleSet";
action.description = "description";
action.vRouterUuid = "85eb5d9f50bc3919b793b3caf9f3e859";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreatePolicyRouteRuleSetAction.Result res = action.call();
```

Python SDK

```
CreatePolicyRouteRuleSetAction action = CreatePolicyRouteRuleSetAction()
action.name = "ruleSet"
action.description = "description"
action.vRouterUuid = "85eb5d9f50bc3919b793b3caf9f3e859"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreatePolicyRouteRuleSetAction.Result res = action.call()
```

5.3.8.2 DeletePolicyRouteRuleSet

API Request

URLs

```
DELETE zstack/v1/policy-routes/ruleSets/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/policy-routes/ruleSets/
f430004bc0ed315c89eb7909a48d27e7?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
deleteMode	String	body	Optional. The delete mode.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeletePolicyRouteRuleSetAction action = new DeletePolicyRouteRuleSetAction();
action.uuid = "f430004bc0ed315c89eb7909a48d27e7";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeletePolicyRouteRuleSetAction.Result res = action.call();
```

Python SDK

```
DeletePolicyRouteRuleSetAction action = DeletePolicyRouteRuleSetAction()
action.uuid = "f430004bc0ed315c89eb7909a48d27e7"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeletePolicyRouteRuleSetAction.Result res = action.call()
```

5.3.8.3 UpdatePolicyRouteRuleSet

API Request

URLs

```
PUT zstack/v1/policy-routes/ruleSets/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updatePolicyRouteRuleSet": {
    "name": "name",
    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updatePolicyRouteRuleSet":
{"name":"name","description":"desc"}}' http://localhost:8080/zstack/
v1/policy-routes/ruleSets/e58212f4cd0c3f2f96d27dde19de1383/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
name	String	body (contained in the updatePolicyRouteRuleSet structure)	Optional. The resource name.		3.6.0
description	String	body (contained in the updatePolicyRouteRuleSet structure)	Optional. The detailed description of the resource.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "name",
    "description": "example-des",
    "rules": []
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	3.6.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventory	PolicyRouteRuleSetInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
rules	List	See rules .	3.6.0

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
ruleNumber	int	The priority.	3.6.0
ruleSetUuid	String	The UUID of the policy route rule set.	3.6.0
tableUuid	String	The policy route table UUID.	3.6.0
destIp	String	The destination IP address.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
protocol	PolicyRouteRuleProtocol	See protocol .	3.6.0
state	PolicyRouteRuleState	See state .	3.6.0

#protocol

Name	Type	Description	Starting Version
tcp	PolicyRouteRuleProtocol		3.6.0
udp	PolicyRouteRuleProtocol		3.6.0

#state

Name	Type	Description	Starting Version
enable	PolicyRouteRuleState		3.6.0
disable	PolicyRouteRuleState		3.6.0

SDK Sample

Java SDK

```
UpdatePolicyRouteRuleSetAction action = new UpdatePolicyRouteRuleSetAction();
action.uuid = "e58212f4cd0c3f2f96d27dde19de1383";
action.name = "name";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdatePolicyRouteRuleSetAction.Result res = action.call();
```

Python SDK

```
UpdatePolicyRouteRuleSetAction action = UpdatePolicyRouteRuleSetAction
()
action.uuid = "e58212f4cd0c3f2f96d27dde19de1383"
action.name = "name"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdatePolicyRouteRuleSetAction.Result res = action.call()
```

5.3.8.4 QueryPolicyRouteRuleSet**API Request**

URLs

```
GET zstack/v1/policy-routes/rulesets
```

```
GET zstack/v1/policy-routes/rulesets/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/policy-routes/rulesets
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/policy-routes/rulesets/
f3c338fa05d63ceaa90fedcaffebfd66
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPolicyRouteRuleSet**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "name",
      "description": "example-des",
      "rules": [
        {
          "uuid": "2e05ab3c36323487baea2414005817ee",
          "ruleNumber": 1.0,
          "ruleSetUuid": "4c86543d473f3127885b3ffc8be5ec88",
          "tableUuid": "d2ad1f7ad9aa354e8da24829bbd31a05",
          "destIp": "192.168.1.1",
          "sourceIp": "10.0.0.1",
          "destPort": "22",
          "sourcePort": "80",
          "protocol": "tcp",
          "state": "enable"
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	3.6.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
rules	List	See rules .	3.6.0

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
ruleNumber	int	The priority.	3.6.0
ruleSetUuid	String	The UUID of the policy route rule set.	3.6.0

Name	Type	Description	Starting Version
tableUuid	String	The policy route table UUID.	3.6.0
destIp	String	The destination IP address.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
protocol	PolicyRouteRuleProtocol	See protocol .	3.6.0
state	PolicyRouteRuleState	See state .	3.6.0

#protocol

Name	Type	Description	Starting Version
tcp	PolicyRouteRuleProtocol		3.6.0
udp	PolicyRouteRuleProtocol		3.6.0

#state

Name	Type	Description	Starting Version
enable	PolicyRouteRuleState		3.6.0
disable	PolicyRouteRuleState		3.6.0

SDK Sample

Java SDK

```
QueryPolicyRouteRuleSetAction action = new QueryPolicyRouteRuleSetAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryPolicyRouteRuleSetAction.Result res = action.call();
```

Python SDK

```
QueryPolicyRouteRuleSetAction action = QueryPolicyRouteRuleSetAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryPolicyRouteRuleSetAction.Result res = action.call()
```

5.3.8.5 QueryPolicyRouteRuleSetL3Ref

API Request

URLs

```
GET zstack/v1/policy-routes/rulesets/l3networkds/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/policy-routes/rulesets/
l3networkds/refs
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPolicyRouteRuleSetL3Ref**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "id": 1.0,
      "l3NetworkUuid": "764cba1766563fd683ef1fcf76c7295c",
      "ruleSetUuid": "ddb87b28f0253810b753fc9ae62ebd31"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.6.0

Name	Type	Description	Starting Version
		more information, see error .	
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
id	long		3.6.0
l3NetworkUuid	String	The L3 network UUID.	3.6.0
ruleSetUuid	String	The UUID of the policy route rule set.	3.6.0
createDate	Timestamp	The creation date.	3.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
QueryPolicyRouteRuleSetL3RefAction action = new QueryPolicyRouteRuleSetL3RefAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryPolicyRouteRuleSetL3RefAction.Result res = action.call();
```

Python SDK

```
QueryPolicyRouteRuleSetL3RefAction action = QueryPolicyRouteRuleSetL3RefAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryPolicyRouteRuleSetL3RefAction.Result res = action.call()
```

5.3.8.6 QueryPolicyRouteRuleSetVRouterRef

API Request

URLs

```
GET zstack/v1/policy-routes/rulesets/vrouters/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/policy-routes/rulesets/vrouters/refs
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPolicyRouteRuleSetVRouterRef**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "id": 1.0,
      "vRouterUuid": "8715faa19cb03995a864330766fdc77c",
      "ruleSetUuid": "2e27f9015ad3357996546fd51c2d808e"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.6.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
id	long		3.6.0
vRouterUuid	String	The vRouter UUID.	3.6.0
ruleSetUuid	String	The UUID of the policy route rule set.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
QueryPolicyRouteRuleSetVRouterRefAction action = new QueryPolicyRouteRuleSetVRouterRefAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryPolicyRouteRuleSetVRouterRefAction.Result res = action.call();
```

Python SDK

```
QueryPolicyRouteRuleSetVRouterRefAction action = QueryPolicyRouteRuleSetVRouterRefAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryPolicyRouteRuleSetVRouterRefAction.Result res = action.call()
```

5.3.8.7 CreatePolicyRouteRule

API Request

URLs

```
POST zstack/v1/policy-routes/rules
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "ruleSetUuid": "ec2472bf205931318e02a2bb5356c0ee",
    "tableUuid": "b4c03beba98c3502ac53d784dd9bfe61",
    "ruleNumber": 1001.0,
    "destIp": "192.168.1.0/24",
    "sourceIp": "192.168.2.0/24",
    "destPort": "22",
    "sourcePort": "33",
    "protocol": "tcp"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"ruleSetUuid":"ec2472bf205931318e02a2bb5356c0ee","tableUuid":"b4c03beba98c3502ac
http://localhost:8080/zstack/v1/policy-routes/rules
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ruleSetUuid	String	body (contained in	The UUID of the policy route rule set.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
tableUuid	String	body (contained in the params structure)	The policy route table UUID.		3.6.0
ruleNumber	int	body (contained in the params structure)	The priority.		3.6.0
destIp	String	body (contained in the params structure)	Optional. The destination IP address.		3.6.0
sourceIp	String	body (contained in the params structure)	Optional. The source IP address.		3.6.0
destPort	String	body (contained in the params structure)	Optional. The destination port.		3.6.0
sourcePort	String	body (contained in the params structure)	Optional. The source port.		3.6.0
protocol	String	body (contained in the params structure)	Optional. The protocol.		3.6.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.6.0
tagUuids	List	body (contained in	Optional. The tag UUID list.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "8b14e8fd1bae3b35acb67d19b8c7580e",
    "ruleNumber": 1.0,
    "ruleSetUuid": "7cd6023e32c639169b2316ffec4c79f3",
    "tableUuid": "3d5c0b99cfac3654a451c854cf449091",
    "destIp": "192.168.1.1",
    "sourceIp": "80",
    "destPort": "22",
    "protocol": "tcp",
    "state": "enable"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	PolicyRouteRuleInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
ruleNumber	int	The priority.	3.6.0
ruleSetUuid	String	The UUID of the policy route rule set.	3.6.0
tableUuid	String	The policy route table UUID.	3.6.0
destIp	String	The destination IP address.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
protocol	PolicyRouteRuleProtocol	See protocol .	3.6.0

Name	Type	Description	Starting Version
state	PolicyRouteRuleState	See state .	3.6.0

#protocol

Name	Type	Description	Starting Version
tcp	PolicyRouteRuleProtocol		3.6.0
udp	PolicyRouteRuleProtocol		3.6.0

#state

Name	Type	Description	Starting Version
enable	PolicyRouteRuleState		3.6.0
disable	PolicyRouteRuleState		3.6.0

SDK Sample

Java SDK

```
CreatePolicyRouteRuleAction action = new CreatePolicyRouteRuleAction();
action.ruleSetUuid = "ec2472bf205931318e02a2bb5356c0ee";
action.tableUuid = "b4c03beba98c3502ac53d784dd9bfe61";
action.ruleNumber = 1001.0;
action.destIp = "192.168.1.0/24";
action.sourceIp = "192.168.2.0/24";
action.destPort = "22";
action.sourcePort = "33";
action.protocol = "tcp";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreatePolicyRouteRuleAction.Result res = action.call();
```

Python SDK

```
CreatePolicyRouteRuleAction action = CreatePolicyRouteRuleAction()
action.ruleSetUuid = "ec2472bf205931318e02a2bb5356c0ee"
action.tableUuid = "b4c03beba98c3502ac53d784dd9bfe61"
action.ruleNumber = 1001.0
action.destIp = "192.168.1.0/24"
action.sourceIp = "192.168.2.0/24"
action.destPort = "22"
action.sourcePort = "33"
action.protocol = "tcp"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreatePolicyRouteRuleAction.Result res = action.call()
```

5.3.8.8 DeletePolicyRouteRule

API Request

URLs

```
DELETE zstack/v1/policy-routes/rules/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/policy-routes/rules/
b02689c3b5513b8db2bb5f45a8c7b169?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
deleteMode	String	body	Optional. The delete mode.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeletePolicyRouteRuleAction action = new DeletePolicyRouteRuleAction
();
action.uuid = "b02689c3b5513b8db2bb5f45a8c7b169";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeletePolicyRouteRuleAction.Result res = action.call();
```

Python SDK

```
DeletePolicyRouteRuleAction action = DeletePolicyRouteRuleAction()
action.uuid = "b02689c3b5513b8db2bb5f45a8c7b169"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeletePolicyRouteRuleAction.Result res = action.call()
```

5.3.8.9 CreatePolicyRouteTable

API Request

URLs

```
POST zstack/v1/policy-routes/tables
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vRouterUuid": "efe77450940f3dfe9023f2589fdeda25",
    "number": 1.0,
    "description": "description"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```



```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vRouterUuid":"efe77450940f3dfe9023f2589fdeda25","number":1.0,"description":"des
http://localhost:8080/zstack/v1/policy-routes/tables
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vRouterUuid	String	body (contained in the params structure)	The vRouter UUID.		3.6.0
number	Integer	body (contained in the params structure)	The table number.		3.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.6.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "8bd52616389d3ce7b5d74bc2424d3f8d",
    "tableNumber": 1.0,
    "description": "example-des",
    "routes": [
```

```

    {
      "tableUuid": "2a7ba1261cef3cf19b587e493e479286",
      "destinationCidr": "192.168.1.0/24",
      "nextHopIp": "192.168.1.1",
      "distance": 1.0
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	PolicyRouteTableInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
tableNumber	int	The table number.	3.6.0
description	String	The detailed description of the resource.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
routes	List	See routes .	3.6.0

#routes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
tableUuid	String	The policy route table UUID.	3.6.0
destinationCidr	String	The destination CIDR address.	3.6.0
nextHopIp	String	The next hop IP address.	3.6.0
distance	int	The priority.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
CreatePolicyRouteTableAction action = new CreatePolicyRouteTableAction();
action.vRouterUuid = "efe77450940f3dfe9023f2589fdeda25";
action.number = 1.0;
action.description = "description";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreatePolicyRouteTableAction.Result res = action.call();
```

Python SDK

```
CreatePolicyRouteTableAction action = CreatePolicyRouteTableAction()  
action.vRouterUuid = "efe77450940f3dfe9023f2589fdeda25"  
action.number = 1.0  
action.description = "description"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
CreatePolicyRouteTableAction.Result res = action.call()
```

5.3.8.10 DeletePolicyRouteTable

API Request

URLs

```
DELETE zstack/v1/policy-routes/tables/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X DELETE http://localhost:8080/zstack/v1/policy-routes/  
tables/4c24bf6b15d3338ab1d66eac97eec58b?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
deleteMode	String	body	Optional. The delete mode.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeletePolicyRouteTableAction action = new DeletePolicyRouteTableAction
();
action.uuid = "4c24bf6b15d3338ab1d66eac97eec58b";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeletePolicyRouteTableAction.Result res = action.call();
```

Python SDK

```
DeletePolicyRouteTableAction action = DeletePolicyRouteTableAction()
action.uuid = "4c24bf6b15d3338ab1d66eac97eec58b"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeletePolicyRouteTableAction.Result res = action.call()
```

5.3.8.11 QueryPolicyRouteTable

API Request

URLs

```
GET zstack/v1/policy-routes/tables
```

```
GET zstack/v1/policy-routes/tables/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/policy-routes/tables
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/policy-routes/tables/
e32b296e6633331284c5cbbd71cedfa4
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPolicyRouteTable**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "6e39025e9eb432fda488f19e7104fdf0",
      "tableNumber": 1.0,
      "description": "example-des",
      "routes": [
        {
          "tableUuid": "90f075232c383565ac3dbc09554c4152",
          "destinationCidr": "192.168.1.0/24",
          "nextHopIp": "192.168.1.1",
          "distance": 1.0
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
tableNumber	int	The table number.	3.6.0
description	String	The detailed description of the resource.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
routes	List	See routes .	3.6.0

#routes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
tableUuid	String	The policy route table UUID.	3.6.0
destinationCidr	String	The destination CIDR.	3.6.0
nextHopIp	String	The next hop IP address.	3.6.0

Name	Type	Description	Starting Version
distance	int	The priority.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
QueryPolicyRouteTableAction action = new QueryPolicyRouteTableAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryPolicyRouteTableAction.Result res = action.call();
```

Python SDK

```
QueryPolicyRouteTableAction action = QueryPolicyRouteTableAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryPolicyRouteTableAction.Result res = action.call()
```

5.3.8.12 QueryPolicyRouteTableVRouterRef

API Request

URLs

```
GET zstack/v1/policy-routes/tables/vrouters/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/policy-routes/tables/vrouters/refs
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPolicyRouteTableVRouterRef**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "id": 1.0,
      "tableUuid": "cc3bb710f9d43cedb044213253363604",
      "vRouterUuid": "f281299552813438acc3c5a400802a78"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.6.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

SDK Sample

Java SDK

```
QueryPolicyRouteTableVRouterRefAction action = new QueryPolicyRouteTableVRouterRefAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryPolicyRouteTableVRouterRefAction.Result res = action.call();
```

Python SDK

```
QueryPolicyRouteTableVRouterRefAction action = QueryPolicyRouteTableVRouterRefAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryPolicyRouteTableVRouterRefAction.Result res = action.call()
```

5.3.8.13 CreatePolicyRouteTableRouteEntry

API Request

URLs

```
POST zstack/v1/policy-routes/routes
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "tableUuid": "ef44a453884a3b93867d6ec0b7dd5716",
    "destinationCidr": "192.168.1.0/24",
    "nextHopIp": "192.168.1.1",
    "distance": 1.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"tableUuid":"ef44a453884a3b93867d6ec0b7dd5716","destinationCidr":"192.168.1.0/24",
"nextHopIp":"192.168.1.1","distance":1,"resourceUuid":"ef44a453884a3b93867d6ec0b7dd5716",
"tagUuids":["ef44a453884a3b93867d6ec0b7dd5716"],"systemTags":["ef44a453884a3b93867d6ec0b7dd5716"],
"userTags":["ef44a453884a3b93867d6ec0b7dd5716"]}'
http://localhost:8080/zstack/v1/policy-routes/routes
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
tableUuid	String	body (contained in the params structure)	The policy route table UUID.		3.6.0
destinationCidr	String	body (contained in the params structure)	The destination CIDR.		3.6.0
nextHopIp	String	body (contained in the params structure)	The next hop IP address.		3.6.0
distance	Integer	body (contained in the params structure)	The priority.		3.6.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "tableUuid": "a6e9466373c333948f8d6ef573992d43",
    "destinationCidr": "192.168.1.0/24",
    "nextHopIp": "192.168.1.1",
    "distance": 1.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	PolicyRouteTableRouteEntryInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.6.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
tableUuid	String	The policy route table UUID.	3.6.0
destinationCidr	String	The destination CIDR.	3.6.0
nextHopIp	String	The next hop IP address.	3.6.0
distance	int	The priority.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
CreatePolicyRouteTableRouteEntryAction action = new CreatePolicyRouteTableRouteEntryAction();
action.tableUuid = "ef44a453884a3b93867d6ec0b7dd5716";
action.destinationCidr = "192.168.1.0/24";
action.nextHopIp = "192.168.1.1";
action.distance = 1.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreatePolicyRouteTableRouteEntryAction.Result res = action.call();
```

Python SDK

```
CreatePolicyRouteTableRouteEntryAction action = CreatePolicyRouteTableRouteEntryAction()
action.tableUuid = "ef44a453884a3b93867d6ec0b7dd5716"
action.destinationCidr = "192.168.1.0/24"
action.nextHopIp = "192.168.1.1"
action.distance = 1.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreatePolicyRouteTableRouteEntryAction.Result res = action.call()
```

5.3.8.14 DeletePolicyRouteTableRouteEntry

API Request

URLs

```
DELETE zstack/v1/policy-routes/routes/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/policy-routes/
routes/7e28a7059fb33a8bb2d7c61b7951303e?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
deleteMode	String	body	Optional. The delete mode.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeletePolicyRouteTableRouteEntryAction action = new DeletePolicyRouteTableRouteEntryAction();
action.uuid = "7e28a7059fb33a8bb2d7c61b7951303e";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeletePolicyRouteTableRouteEntryAction.Result res = action.call();
```

Python SDK

```
DeletePolicyRouteTableRouteEntryAction action = DeletePolicyRouteTableRouteEntryAction()
action.uuid = "7e28a7059fb33a8bb2d7c61b7951303e"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeletePolicyRouteTableRouteEntryAction.Result res = action.call()
```

5.3.8.15 QueryPolicyRouteTableRouteEntry

API Request

URLs

```
GET zstack/v1/policy-routes/routes
```

```
GET zstack/v1/policy-routes/routes/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/policy-routes/routes
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/policy-routes/
routes/775c98615c5936f3aab19b6271c9e5dc
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPolicyRouteTableRouteEntry**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "tableUuid": "49bf5678360b38058ab7096715e219f4",
      "destinationCidr": "192.168.1.0/24",
      "nextHopIp": "192.168.1.1",
      "distance": 1.0
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current	3.6.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
tableUuid	String	The policy route table UUID.	3.6.0
destinationCidr	String	The destination CIDR.	3.6.0
nextHopIp	String	The next hop IP address.	3.6.0
distance	int	The priority.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
QueryPolicyRouteTableRouteEntryAction action = new QueryPolicyRouteTableRouteEntryAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryPolicyRouteTableRouteEntryAction.Result res = action.call();
```

Python SDK

```
QueryPolicyRouteTableRouteEntryAction action = QueryPolicyRouteTableRouteEntryAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryPolicyRouteTableRouteEntryAction.Result res = action.call()
```

5.3.8.16 QueryPolicyRouteRule

API Request

URLs

```
GET zstack/v1/policy-routes/rules
```

```
GET zstack/v1/policy-routes/rules/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/policy-routes/rules
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/policy-routes/rules/  
cc3c19210de13878994ddcb5bee8a34c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPolicyRouteRule**, and pressing the **Tab** key.

API Response

Sample Response

```
{  
  "inventories": [  
    {  
      "uuid": "538840755c1a36e0b79f1d04097b252e",  
      "ruleNumber": 1.0,  
      "ruleSetUuid": "7cb413c84b243290a7105e8c21f42b59",  
      "tableUuid": "d29940b692f33c0eaf96b0193029636c",  
      "destIp": "192.168.1.1",  
      "sourceIp": "80",  
      "destPort": "22",  
      "protocol": "tcp",  
      "state": "enable"  
    }  
  ]  
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
ruleNumber	int	The priority.	3.6.0

Name	Type	Description	Starting Version
ruleSetUuid	String	The UUID of the policy route rule set.	3.6.0
tableUuid	String	The policy route table UUID.	3.6.0
destIp	String	The destination IP address.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
protocol	PolicyRouteRuleProtocol	See protocol .	3.6.0
state	PolicyRouteRuleState	See state .	3.6.0

#protocol

Name	Type	Description	Starting Version
tcp	PolicyRouteRuleProtocol		3.6.0
udp	PolicyRouteRuleProtocol		3.6.0

#state

Name	Type	Description	Starting Version
enable	PolicyRouteRuleState		3.6.0
disable	PolicyRouteRuleState		3.6.0

SDK Sample

Java SDK

```
QueryPolicyRouteRuleAction action = new QueryPolicyRouteRuleAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryPolicyRouteRuleAction.Result res = action.call();
```

Python SDK

```
QueryPolicyRouteRuleAction action = QueryPolicyRouteRuleAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryPolicyRouteRuleAction.Result res = action.call()
```

5.3.8.17 AttachPolicyRouteRuleSetToL3

API Request

URLs

```
POST zstack/v1/policy-routes/rulesets/{ruleSetUuid}/l3networks/
{l3Uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/
v1/policy-routes/rulesets/1e6eb259093e3fa2a30c837ae69d259c/
l3networks/8748b8be922938bbb430ed9cbe3e4e46
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3Uuid	String	url	The L3 network UUID.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
ruleSetUuid	String	url	The UUID of the policy rule set.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AttachPolicyRouteRuleSetToL3Action action = new AttachPolicyRouteRuleSetToL3Action();
action.l3Uuid = "8748b8be922938bbb430ed9cbe3e4e46";
action.ruleSetUuid = "1e6eb259093e3fa2a30c837ae69d259c";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachPolicyRouteRuleSetToL3Action.Result res = action.call();
```

Python SDK

```
AttachPolicyRouteRuleSetToL3Action action = AttachPolicyRouteRuleSetToL3Action()
action.l3Uuid = "8748b8be922938bbb430ed9cbe3e4e46"
action.ruleSetUuid = "1e6eb259093e3fa2a30c837ae69d259c"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachPolicyRouteRuleSetToL3Action.Result res = action.call()
```

5.3.8.18 DetachPolicyRouteRuleSetFromL3

API Request

URLs

```
DELETE zstack/v1/policy-routes/rulesets/{ruleSetUuid}/l3networks/{l3Uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/policy-
routes/rulesets/75641a6f70c03fcea051d7fb5e45a0e5/
l3networks/9556f3da05743aa88a603e086875e22c
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3Uuid	String	url	The L3 network UUID.		3.6.0
ruleSetUuid	String	url	The UUID of the policy route rule set.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DetachPolicyRouteRuleSetFromL3Action action = new DetachPolicyRouteRuleSetFromL3Action();
action.l3Uuid = "9556f3da05743aa88a603e086875e22c";
action.ruleSetUuid = "75641a6f70c03fcea051d7fb5e45a0e5";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachPolicyRouteRuleSetFromL3Action.Result res = action.call();
```

Python SDK

```
DetachPolicyRouteRuleSetFromL3Action action = DetachPolicyRouteRuleSetFromL3Action()
action.l3Uuid = "9556f3da05743aa88a603e086875e22c"
action.ruleSetUuid = "75641a6f70c03fcea051d7fb5e45a0e5"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachPolicyRouteRuleSetFromL3Action.Result res = action.call()
```

5.3.8.19 GetPolicyRouteRuleSetFromVirtualRouter

API Request

URLs

```
GET zstack/v1/policy-routes/rulesets/virtualrouter/{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/policy-routes/rulesets/virtualrouter/d38e9c3321af3f01a5509fa7f43dc46a
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The VM instance UUID		3.9.0
systemTags	List	query	Optional. The system tags.		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "de191bb7f4763ce580fd7e2ed457cde8",
      "name": "policy-rule-set",
      "description": "policy rule set",
      "type": "User",
      "rules": [],
      "l3Refs": []
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventories	List	See inventories .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
type	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
rules	List	See rules .	3.9.0
l3Refs	List	See l3Refs .	3.9.0

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
ruleNumber	int		3.9.0
ruleSetUuid	String		3.9.0
tableUuid	String		3.9.0
destIp	String		3.9.0
sourceIp	String		3.9.0

Name	Type	Description	Starting Version
destPort	String		3.9.0
sourcePort	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
protocol	PolicyRouteRuleProtocol	See protocol .	3.9.0
state	PolicyRouteRuleState	See state .	3.9.0

#protocol

Name	Type	Description	Starting Version
tcp	PolicyRouteRuleProtocol		3.9.0
udp	PolicyRouteRuleProtocol		3.9.0

#state

Name	Type	Description	Starting Version
enable	PolicyRouteRuleState		3.9.0
disable	PolicyRouteRuleState		3.9.0

#l3Refs

Name	Type	Description	Starting Version
id	long		3.9.0
l3NetworkUuid	String	The L3 network UUID.	3.9.0
ruleSetUuid	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
GetPolicyRouteRuleSetFromVirtualRouterAction action = new GetPolicyRouteRuleSetFromVirtualRouterAction();
action.vmInstanceUuid = "d38e9c3321af3f01a5509fa7f43dc46a";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetPolicyRouteRuleSetFromVirtualRouterAction.Result res = action.call();
```

Python SDK

```
GetPolicyRouteRuleSetFromVirtualRouterAction action = GetPolicyRouteRuleSetFromVirtualRouterAction()
action.vmInstanceUuid = "d38e9c3321af3f01a5509fa7f43dc46a"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetPolicyRouteRuleSetFromVirtualRouterAction.Result res = action.call()
```

5.4 Network Service

5.4.1 Network Service Operations

5.4.1.1 GetNetworkServiceTypes

API Request

URLs

```
GET zstack/v1/network-services/types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 8a5a05acd4fb47b7839a9c50a74c3f1a" \
-X GET http://localhost:8080/zstack/v1/network-services/types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "serviceAndProviderTypes": {
    "SecurityGroup": [
      "929ae57afd1b4815b04ecb25bd67fb02"
    ]
  }
}
```

Name	Type	Description	Starting Version
types	Map		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetNetworkServiceTypesAction action = new GetNetworkServiceTypesAction();
action.sessionId = "bcb01c0891bb48a1974e2004b3397678";
GetNetworkServiceTypesAction.Result res = action.call();
```

Python SDK

```
GetNetworkServiceTypesAction action = GetNetworkServiceTypesAction()
action.sessionId = "35c50339c05b4d6c9b4461a478c17239"
GetNetworkServiceTypesAction.Result res = action.call()
```

5.4.1.2 QueryNetworkServiceProvider

API Request

URLs

```
GET zstack/v1/network-services/providers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 0305524eb18344ea95193f8283a7212f" \
-X GET http://localhost:8080/zstack/v1/network-services/providers
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryNetworkServiceProvider`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "3cf04a2c5e1a4c4c8947545323e35d6a",
      "name": "SecurityGroup",
      "type": "SecurityGroup",
      "createDate": "Jun 7, 2017 9:21:03 PM",
      "lastOpDate": "Jun 7, 2017 9:21:03 PM",
      "networkServiceTypes": [
        "SecurityGroup"
      ],
      "attachedL2NetworkUuids": []
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
networkServiceTypes	Set		0.6
attachedL2NetworkUuids	Set		0.6

SDK Sample

Java SDK

```
QueryNetworkServiceProviderAction action = new QueryNetworkServiceP
roviderAction();
action.conditions = asList();
action.sessionId = "3d4bfef1a32241528160058368824670";
QueryNetworkServiceProviderAction.Result res = action.call();
```

Python SDK

```
QueryNetworkServiceProviderAction action = QueryNetworkServiceP
roviderAction()
action.conditions = []
action.sessionId = "db50128c5ab745e68c9b30c52d24ebf9"
```



```
QueryNetworkServiceProviderAction.Result res = action.call()
```

5.4.1.3 QueryNetworkServiceL3NetworkRef

API Request

URLs

```
GET zstack/v1/l3-networks/network-services/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth aa530ebc39804e00b3df02b8862eaec3" \
-X GET http://localhost:8080/zstack/v1/l3-networks/network-services/
refs
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryNetworkServiceL3NetworkRef**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "l3NetworkUuid": "fc5bd613a8fd45ed9b96ff5d99ae6717",
      "networkServiceProviderUuid": "f79573afadc44f4fb83aaf67eeb98cde",
      "networkServiceType": "PortForwarding"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
l3NetworkUuid	String	The L3 network UUID.	0.6
networkServiceProviderUuid	String	The network service provider UUID.	0.6
networkServiceType	String		0.6

SDK Sample

Java SDK

```
QueryNetworkServiceL3NetworkRefAction action = new QueryNetworkServiceL3NetworkRefAction();
action.conditions = asList();
action.sessionId = "01368722cb7e4c7eac03e7040f8b73e1";
```

```
QueryNetworkServiceL3NetworkRefAction.Result res = action.call();
```

Python SDK

```
QueryNetworkServiceL3NetworkRefAction action = QueryNetworkServiceL3NetworkRefAction()
action.conditions = []
action.sessionId = "237996a7dddf4cf3a42f6ea15893bc76"
QueryNetworkServiceL3NetworkRefAction.Result res = action.call()
```

5.4.1.4 AttachNetworkServiceToL3Network

API Request

URLs

```
POST zstack/v1/l3-networks/{l3NetworkUuid}/network-services
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "networkServices": {
      "95f60161f9d5483dbfe92a10d8795334": [
        "PortForwarding"
      ]
    }
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"networkServices":
{"41083a0985973a62bf8e6086dff0a2df":["PortForwarding"]}}}' \
http://localhost:8080/zstack/v1/l3-networks/
ae8e1e4d66003a08b748363b8ebb0be8/network-services
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		0.6
networkServices	Map	body (contained in the params structure)	The network services.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AttachNetworkServiceToL3NetworkAction action = new AttachNetworkServiceToL3NetworkAction();
action.l3NetworkUuid = "e1a80b4d97ca442b8f313739de6d7997";
action.networkServices = [a3b86894e3b948288ccb1886a4084f03:[PortForwarding]];
action.sessionId = "4de1ca63ca1a4a0db7d799093b387c76";
AttachNetworkServiceToL3NetworkAction.Result res = action.call();
```

Python SDK

```
AttachNetworkServiceToL3NetworkAction action = AttachNetworkServiceToL3NetworkAction()
action.l3NetworkUuid = "38daee20c0264e41b58ea573c261f439"
action.networkServices = [7fb4f50bf7c74c30951fb7adbb202a95:[PortForwarding]]
action.sessionId = "4be26def099940f0979b1afaf414bba6"
```

```
AttachNetworkServiceToL3NetworkAction.Result res = action.call()
```

5.4.1.5 DetachNetworkServiceFromL3Network

API Request

URLs

```
DELETE/v1/l3-networks/{l3NetworkUuid}/network-services?networkServices={networkServices}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 6c324aa381644b8b87d229ba3fdad834" \
-X DELETE http://localhost:8080/zstack/v1/l3-networks/0cf8b1d49cb34d9c8f3fb0f70a4ec20d/network-services?networkServices.f
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
l3NetworkUuid	String	url	The L3 network UUID.		0.6
networkServices	Map	body	The network services.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DetachNetworkServiceFromL3NetworkAction action = new DetachNetworkServiceFromL3NetworkAction();
action.l3NetworkUuid = "ce1dedf370494cd4b49c1dd1c845c96b";
action.networkServices = [76b66ca373834d0e8f4011f84dbf6006:[PortForwarding, EIP]];
action.sessionId = "095d243ad49d4717b99b49c6151c25c8";
DetachNetworkServiceFromL3NetworkAction.Result res = action.call();
```

Python SDK

```
DetachNetworkServiceFromL3NetworkAction action = DetachNetworkServiceFromL3NetworkAction()
action.l3NetworkUuid = "a679835ba20342c5809e1be8ddf5e5c8"
action.networkServices = [b78e8e4ca36b4eefa5c38140c7611ef3:[PortForwarding, EIP]]
action.sessionId = "73aa0dad7996453f80331b833df6f320"
DetachNetworkServiceFromL3NetworkAction.Result res = action.call()
```

5.4.1.6 VPC Firewall Operations

5.4.1.6.1 CreateVpcFirewall

API Request

URLs

```
POST zstack/v1/vpcfirewalls
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vpcUuid": "bc370cafacc83fad8f3ad583dea8da12",
    "description": "example-des",
    "name": "example-name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vpcUuid":"bc370cafacc83fad8f3ad583dea8da12", "description":"example-
des", "name":"example-name"}}' http://localhost:8080/zstack/v1/
vpcfirewalls
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vpcUuid	String	body (contained in the params structure)			3.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.6.0
name	String	body (contained in the params structure)	The resource name.		3.6.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "name",
    "refs": [
      {
        "id": 1.0,
        "ruleSetUuid": "06fc56b0483a3bf487b9cdfeaa6c4be2",
        "l3NetworkUuid": "27e1a95342083ce4a790d4f9dcf7f9bd",
        "packetsForwardType": "in",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "description": "example-des"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	VpcFirewallInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
description	String	The detailed description of the resource.	3.6.0
refs	List	See refs .	3.6.0

#refs

Name	Type	Description	Starting Version
id	long	The firewall rule number.	3.6.0
ruleSetUuid	String	The firewall rule set UUID.	3.6.0
l3Uuid	String	The L3 network UUID.	3.6.0
vpcFirewallUuid	String	The firewall UUID.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
packetsForwardType	PacketsForwardType	See packetsForwardType .	3.6.0

#packetsForwardType

Name	Type	Description	Starting Version
in	PacketsForwardType	Ingress packet.	3.6.0
out	PacketsForwardType	Egress packet.	3.6.0

SDK Sample

Java SDK

```
CreateVpcFirewallAction action = new CreateVpcFirewallAction();
action.vpcUuid = "bc370cafacc83fad8f3ad583dea8da12";
action.description = "example-des";
action.name = "example-name";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVpcFirewallAction.Result res = action.call();
```

Python SDK

```
CreateVpcFirewallAction action = CreateVpcFirewallAction()
action.vpcUuid = "bc370cafacc83fad8f3ad583dea8da12"
action.description = "example-des"
action.name = "example-name"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVpcFirewallAction.Result res = action.call()
```

5.4.1.6.2 QueryVpcFirewall

API Request

URLs

```
GET zstack/v1/vpcfirewalls
GET zstack/v1/vpcfirewalls/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/
vpcfirewalls/98631b6cb2b33384b780e1ef61aff0d0
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVpcFirewall**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "name",
      "refs": [
        {
          "id": 1.0,
          "ruleSetUuid": "01a959eec095396eaed841c886219eec",
          "l3NetworkUuid": "76cbd34de351334bbd0f51ee0653d0ab",
          "packetsForwardType": "in",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ],
      "description": "example-des"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
description	String	The detailed description of the resource.	3.6.0
refs	List	See refs .	3.6.0

#refs

Name	Type	Description	Starting Version
id	long		3.6.0
ruleSetUuid	String		3.6.0
I3NetworkUuid	String		3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
packetsForwardType	PacketsForwardType	See packetsForwardType .	3.6.0

#packetsForwardType

Name	Type	Description	Starting Version
in	PacketsForwardType		3.6.0
out	PacketsForwardType		3.6.0
local	PacketsForwardType		3.6.0

SDK Sample

Java SDK

```
QueryVpcFirewallAction action = new QueryVpcFirewallAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVpcFirewallAction.Result res = action.call();
```

Python SDK

```
QueryVpcFirewallAction action = QueryVpcFirewallAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVpcFirewallAction.Result res = action.call()
```

5.4.1.6.3 UpdateVpcFirewall

API Request

URLs

```
PUT zstack/v1/vpcfirewalls/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVpcFirewall": {
    "description": "example-des",
    "name": "example-name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVpcFirewall":{"description":"example-
des","name":"example-name"}}' http://localhost:8080/zstack/v1/
vpcfirewalls/822689d1957d30378fe0c200df72f33a/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
description	String	body (contained in the updateVpcFirewall structure)	Optional. The detailed description of the resource.		3.6.0
name	String	body (contained in the updateVpcFirewall structure)	Optional. The resource name.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "example-name",
    "refs": [
      {
        "id": 1.0,
        "ruleSetUuid": "b3074e9040ef3a2ea30d5843a85b3cdb",
        "l3NetworkUuid": "a53439b32bc133b2a95bd09c9a8c5b67",
        "packetsForwardType": "in",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}
```

```

    ],
    "description": "example-des"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	VpcFirewallInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0

Name	Type	Description	Starting Version
name	String	The resource name.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
description	String	The detailed description of the resource.	3.6.0
refs	List	See refs .	3.6.0

#refs

Name	Type	Description	Starting Version
id	long		3.6.0
ruleSetUuid	String		3.6.0
l3Uuid	String		3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
packetsForwardType	PacketsForwardType	See packetsForwardType .	3.6.0

#packetsForwardType

Name	Type	Description	Starting Version
in	PacketsForwardType		3.6.0
out	PacketsForwardType		3.6.0
local	PacketsForwardType		3.6.0

SDK Sample

Java SDK

```
UpdateVpcFirewallAction action = new UpdateVpcFirewallAction();
action.uuid = "822689d1957d30378fe0c200df72f33a";
action.description = "example-des";
action.name = "example-name";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```



```
UpdateVpcFirewallAction.Result res = action.call();
```

Python SDK

```
UpdateVpcFirewallAction action = UpdateVpcFirewallAction()
action.uuid = "822689d1957d30378fe0c200df72f33a"
action.description = "example-des"
action.name = "example-name"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVpcFirewallAction.Result res = action.call()
```

5.4.1.6.4 RefreshFirewall

API Request

URLs

```
PUT zstack/v1/vpcfirewalls/refresh/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "refreshFirewall": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"refreshFirewall":{}}' http://localhost:8080/zstack/v1/
vpcfirewalls/refresh/f461b936af043aa89aa2bdeb221085e7/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "name",
    "refs": [
      {
        "id": 1.0,
        "ruleSetUuid": "05cc1e225ef83107b6075d758c8dcee2",
        "l3NetworkUuid": "178e23cc9fdc3673b90ee258fe60395f",
        "packetsForwardType": "in",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "description": "example-des"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	VpcFirewallInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
description	String	The detailed description of the resource.	3.6.0
refs	List	See refs .	3.6.0

#refs

Name	Type	Description	Starting Version
id	long		3.6.0
ruleSetUuid	String		3.6.0
I3Uuid	String		3.6.0
createDate	Timestamp	The creation date.	3.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.6.0
packetsForwardType	PacketsForwardType	See packetsForwardType .	3.6.0

#packetsForwardType

Name	Type	Description	Starting Version
in	PacketsForwardType		3.6.0
out	PacketsForwardType		3.6.0
local	PacketsForwardType		3.6.0

SDK Sample

Java SDK

```
RefreshFirewallAction action = new RefreshFirewallAction();
action.uuid = "f461b936af043aa89aa2bdeb221085e7";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RefreshFirewallAction.Result res = action.call();
```

Python SDK

```
RefreshFirewallAction action = RefreshFirewallAction()
action.uuid = "f461b936af043aa89aa2bdeb221085e7"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RefreshFirewallAction.Result res = action.call()
```

5.4.1.6.5 DeleteFirewall**API Request**

URLs

```
DELETE zstack/v1/vpcfirewalls/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/vpcfirewalls/09b37275fd073e4db292628ea260dd20?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
deleteMode	String	body	Optional. The delete mode.	• Permissive • Enforcing	4.0.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteFirewallAction action = new DeleteFirewallAction();
action.uuid = "09b37275fd073e4db292628ea260dd20";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteFirewallAction.Result res = action.call();
```

Python SDK

```
DeleteFirewallAction action = DeleteFirewallAction()
action.uuid = "09b37275fd073e4db292628ea260dd20"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteFirewallAction.Result res = action.call()
```

5.4.1.6.6 CreateFirewallRuleSet

API Request

URLs

```
POST zstack/v1/vpcfirewalls/ruleSets
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "name",
    "actionType": "drop",
    "description": "example-des"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"name","vpcFirewallUuid":"e9a77f42bdbb3b5692012c6007a5893a","actionType":
"des"}}' http://localhost:8080/zstack/v1/vpcfirewalls/ruleSets
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The ruleset name.		3.6.0
actionType	String	body (contained in	Optional. The action taken	- drop - accept	3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	against data packets.	reject	
description	String	body (contained in the params structure)	Optional. The detailed description of the ruleset.		3.6.0
resourceUuid	String	body (contained in the params structure)	Optional. The ruleset UUID.		3.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUIDs.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "name",
    "actionType": "drop",
    "description": "example-des",
    "enableDefaultLog": false,
    "isDefault": false,
    "isApplied": true
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0

Name	Type	Description	Starting Version
inventory	VpcFirewallRuleSetInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
isDefault	boolean		3.6.0
isApplied	boolean	Indicates whether the ruleset is applied.	4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
actionType	ActionType	See actionType .	3.6.0
rules	List	See rules .	3.6.0

#actionType

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0
accept	ActionType		3.6.0

#rules

Name	Type	Description	Starting Version
uuid	String	The firewall rule UUID.	3.6.0
ruleSetUuid	String	The ruleset UUID.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destIp	String	The destination IP address.	3.6.0
ruleNumber	Integer	The priority of the rule.	3.6.0
allowStates	String	The allow status of data packets.	3.6.0
tcpFlag	String	The TCP flag.	3.6.0
icmpTypeName	String	The ICMP type.	3.6.0
isApplied	boolean	Indicates whether the rule is applied.	4.0.0
expired	boolean	Indicates whether the rule is expired.	4.0.0

Name	Type	Description	Starting Version
isDefault	boolean	Indicates whether the rule is a system rule.	3.6.0
description	String	The detailed description of the rule.	3.6.0
createDate	Timestamp	The time when the rule was created.	3.6.0
lastOpDate	Timestamp	The time when the rule was last modified.	3.6.0
action	ActionType	See action .	3.6.0
protocol	ProtocolType	See protocol .	3.6.0
state	FirewallRuleState	See state .	3.6.0

#action

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0
accept	ActionType		3.6.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		3.6.0
all	ProtocolType		3.6.0
ah	ProtocolType		3.6.0
ax.25	ProtocolType		3.6.0
dccp	ProtocolType		3.6.0
ddp	ProtocolType		3.6.0
egp	ProtocolType		3.6.0
eigrp	ProtocolType		3.6.0
encap	ProtocolType		3.6.0
esp	ProtocolType		3.6.0
etherip	ProtocolType		3.6.0

Name	Type	Description	Starting Version
fc	ProtocolType		3.6.0
ggp	ProtocolType		3.6.0
gre	ProtocolType		3.6.0
hip	ProtocolType		3.6.0
hmp	ProtocolType		3.6.0
icmp	ProtocolType		3.6.0
ipdr-cmtp	ProtocolType		3.6.0
idpr	ProtocolType		3.6.0
igmp	ProtocolType		3.6.0
igp	ProtocolType		3.6.0
ip	ProtocolType		3.6.0
ipcomp	ProtocolType		3.6.0
ipencap	ProtocolType		3.6.0
ipip	ProtocolType		3.6.0
isis	ProtocolType		3.6.0
iso-tp4	ProtocolType		3.6.0
l2tp	ProtocolType		3.6.0
manet	ProtocolType		3.6.0
mpls-in-ip	ProtocolType		3.6.0
ospf	ProtocolType		3.6.0
pim	ProtocolType		3.6.0
pup	ProtocolType		3.6.0
rdp	ProtocolType		3.6.0
rohc	ProtocolType		3.6.0
rsfp	ProtocolType		3.6.0
rsvp	ProtocolType		3.6.0
sctp	ProtocolType		3.6.0
skip	ProtocolType		3.6.0
st	ProtocolType		3.6.0

Name	Type	Description	Starting Version
tcp	ProtocolType		3.6.0
udp	ProtocolType		3.6.0
udplite	ProtocolType		3.6.0
vmtp	ProtocolType		3.6.0
vrrp	ProtocolType		3.6.0
wesp	ProtocolType		3.6.0
xns-idp	ProtocolType		3.6.0
xtp	ProtocolType		3.6.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		3.6.0
enable	FirewallRuleState		3.6.0

SDK Sample

Java SDK

```
CreateFirewallRuleSetAction action = new CreateFirewallRuleSetAction
();
action.name = "name";
action.vpcFirewallUuid = "e9a77f42bdbb3b5692012c6007a5893a";
action.actionType = "drop";
action.description = "example-des";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateFirewallRuleSetAction.Result res = action.call();
```

Python SDK

```
CreateFirewallRuleSetAction action = CreateFirewallRuleSetAction()
action.name = "name"
action.vpcFirewallUuid = "e9a77f42bdbb3b5692012c6007a5893a"
action.actionType = "drop"
action.description = "example-des"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateFirewallRuleSetAction.Result res = action.call()
```

5.4.1.6.7 QueryFirewallRuleSet

API Response

URLs

```
GET zstack/v1/vpcfirewalls/ruleSets
GET zstack/v1/vpcfirewalls/ruleSets/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/ruleSets
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/ruleSets/
a26016d5c50a3908a0692d57d033c154
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryFirewallRuleSet**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "name",
      "actionType": "drop",
      "description": "example-des",
      "enableDefaultLog": false,
      "isDefault": false,
      "isApplied": false
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.6.0

Name	Type	Description	Starting Version
		more information, see error .	
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
isDefault	boolean		3.6.0
isApplied	boolean		3.6.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
actionType	ActionType	See actionType .	3.6.0
rules	List	See rules .	3.6.0

#actionType

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0
accept	ActionType		3.6.0

#rules

Name	Type	Description	Starting Version
uuid	String	The firewall rule UUID.	3.6.0
ruleSetUuid	String	The ruleset UUID.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destIp	String	The destination IP address.	3.6.0
ruleNumber	Integer	The priority of the rule.	3.6.0
allowStates	String	The allow status of data packets.	3.6.0
tcpFlag	String	The TCP flag.	3.6.0
icmpTypeName	String	The ICMP type.	3.6.0
isApplied	boolean	Indicates whether the rule is applied.	4.0.0
expired	boolean	Indicates whether the rule is expired.	4.0.0

Name	Type	Description	Starting Version
isDefault	boolean	Indicates whether the rule is a system rule.	3.6.0
description	String	The detailed description of the rule.	3.6.0
createDate	Timestamp	The time when the rule was created.	3.6.0
lastOpDate	Timestamp	The time when the rule was last modified.	3.6.0
action	ActionType	See action .	3.6.0
protocol	ProtocolType	See protocol .	3.6.0
state	FirewallRuleState	See state .	3.6.0

#action

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0
accept	ActionType		3.6.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		3.6.0
all	ProtocolType		3.6.0
ah	ProtocolType		3.6.0
ax.25	ProtocolType		3.6.0
dccp	ProtocolType		3.6.0
ddp	ProtocolType		3.6.0
egp	ProtocolType		3.6.0
eigrp	ProtocolType		3.6.0
encap	ProtocolType		3.6.0
esp	ProtocolType		3.6.0
etherip	ProtocolType		3.6.0

Name	Type	Description	Starting Version
fc	ProtocolType		3.6.0
ggp	ProtocolType		3.6.0
gre	ProtocolType		3.6.0
hip	ProtocolType		3.6.0
hmp	ProtocolType		3.6.0
icmp	ProtocolType		3.6.0
ipdr-cmtp	ProtocolType		3.6.0
idpr	ProtocolType		3.6.0
igmp	ProtocolType		3.6.0
igp	ProtocolType		3.6.0
ip	ProtocolType		3.6.0
ipcomp	ProtocolType		3.6.0
ipencap	ProtocolType		3.6.0
ipip	ProtocolType		3.6.0
isis	ProtocolType		3.6.0
iso-tp4	ProtocolType		3.6.0
l2tp	ProtocolType		3.6.0
manet	ProtocolType		3.6.0
mpls-in-ip	ProtocolType		3.6.0
ospf	ProtocolType		3.6.0
pim	ProtocolType		3.6.0
pup	ProtocolType		3.6.0
rdp	ProtocolType		3.6.0
rohc	ProtocolType		3.6.0
rsfp	ProtocolType		3.6.0
rsvp	ProtocolType		3.6.0
sctp	ProtocolType		3.6.0
skip	ProtocolType		3.6.0
st	ProtocolType		3.6.0

Name	Type	Description	Starting Version
tcp	ProtocolType		3.6.0
udp	ProtocolType		3.6.0
udplite	ProtocolType		3.6.0
vmtpt	ProtocolType		3.6.0
vrrp	ProtocolType		3.6.0
wesp	ProtocolType		3.6.0
xns-idp	ProtocolType		3.6.0
xtp	ProtocolType		3.6.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		3.6.0
enable	FirewallRuleState		3.6.0

SDK Sample

Java SDK

```
QueryFirewallRuleSetAction action = new QueryFirewallRuleSetAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryFirewallRuleSetAction.Result res = action.call();
```

Python SDK

```
QueryFirewallRuleSetAction action = QueryFirewallRuleSetAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryFirewallRuleSetAction.Result res = action.call()
```

5.4.1.6.8 UpdateFirewallRuleSet

API Request

URLs

```
PUT zstack/v1/vpcfirewalls/ruleSets/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateFirewallRuleSet": {
    "description": "example-des",
    "actionType": "drop"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateFirewallRuleSet":{"description":"example-des","actionType":"drop"}}' http://localhost:8080/zstack/v1/vpcfirewalls/ruleSets/6b93eca80a9032c3a567b2e3af0f03db/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
name	String	body (contained in the updateFire	Optional. The resource name.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		wallRuleSet structure)			
description	String	body (contained in the updateFire wallRuleSet structure)	Optional. The detailed description of the resource.		3.6.0
actionType	String	body (contained in the updateFire wallRuleSet structure)	Optional. The action type.	• drop • accept • reject	3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "name",
    "actionType": "drop",
    "description": "example-des",
    "enableDefaultLog": false,
    "isDefault": false,
    "isApplied": true
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0

Name	Type	Description	Starting Version
inventory	VpcFirewallRuleSetInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
isDefault	boolean		3.6.0
createDate	Timestamp	The creation date.	3.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.6.0
actionType	ActionType	See actionType .	3.6.0
rules	List	See rules	3.6.0

#actionType

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0
accept	ActionType		3.6.0

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
ruleSetUuid	String	The ruleset UUID.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destIp	String	The destination IP address.	3.6.0
ruleNumber	Integer	The priority of a rule.	3.6.0
allowStates	String	The state of packets.	3.6.0
tcpFlag	String	The TCP flag.	3.6.0
icmpTypeName	String	The ICMP type.	3.6.0
isApplied	boolean	Indicates whether the ruleset is applied.	4.0.0
expired	boolean	Indicates whether the ruleset is expired.	4.0.0
isDefault	boolean	Indicates whether the ruleset is the default ruleset.	3.6.0

Name	Type	Description	Starting Version
description	String	The detailed description of the ruleset.	3.6.0
createDate	Timestamp	The time when the ruleset was created.	3.6.0
lastOpDate	Timestamp	The time when the ruleset was modified.	3.6.0
action	ActionType	See action	3.6.0
protocol	ProtocolType	See protocol protocol	3.6.0
state	FirewallRuleState	See state	3.6.0

#action

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0
accept	ActionType		3.6.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		3.6.0
all	ProtocolType		3.6.0
ah	ProtocolType		3.6.0
ax.25	ProtocolType		3.6.0
dccp	ProtocolType		3.6.0
ddp	ProtocolType		3.6.0
egp	ProtocolType		3.6.0
eigrp	ProtocolType		3.6.0
encap	ProtocolType		3.6.0
esp	ProtocolType		3.6.0
etherip	ProtocolType		3.6.0
fc	ProtocolType		3.6.0
ggp	ProtocolType		3.6.0

Name	Type	Description	Starting Version
gre	ProtocolType		3.6.0
hip	ProtocolType		3.6.0
hmp	ProtocolType		3.6.0
icmp	ProtocolType		3.6.0
ipdr-cmtp	ProtocolType		3.6.0
idpr	ProtocolType		3.6.0
igmp	ProtocolType		3.6.0
igp	ProtocolType		3.6.0
ip	ProtocolType		3.6.0
ipcomp	ProtocolType		3.6.0
ipencap	ProtocolType		3.6.0
ipip	ProtocolType		3.6.0
isis	ProtocolType		3.6.0
iso-tp4	ProtocolType		3.6.0
l2tp	ProtocolType		3.6.0
manet	ProtocolType		3.6.0
mpls-in-ip	ProtocolType		3.6.0
ospf	ProtocolType		3.6.0
pim	ProtocolType		3.6.0
pup	ProtocolType		3.6.0
rdp	ProtocolType		3.6.0
rohc	ProtocolType		3.6.0
rsfp	ProtocolType		3.6.0
rsvp	ProtocolType		3.6.0
sctp	ProtocolType		3.6.0
skip	ProtocolType		3.6.0
st	ProtocolType		3.6.0
tcp	ProtocolType		3.6.0
udp	ProtocolType		3.6.0

Name	Type	Description	Starting Version
udplite	ProtocolType		3.6.0
vmtp	ProtocolType		3.6.0
vrrp	ProtocolType		3.6.0
wesp	ProtocolType		3.6.0
xns-idp	ProtocolType		3.6.0
xtp	ProtocolType		3.6.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		3.6.0
enable	FirewallRuleState		3.6.0

SDK Sample

Java SDK

```
UpdateFirewallRuleSetAction action = new UpdateFirewallRuleSetAction
();
action.uuid = "6b93eca80a9032c3a567b2e3af0f03db";
action.description = "example-des";
action.actionType = "drop";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateFirewallRuleSetAction.Result res = action.call();
```

Python SDK

```
UpdateFirewallRuleSetAction action = UpdateFirewallRuleSetAction()
action.uuid = "6b93eca80a9032c3a567b2e3af0f03db"
action.description = "example-des"
action.actionType = "drop"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateFirewallRuleSetAction.Result res = action.call()
```

5.4.1.6.9 DeleteFirewallRules

API Request

URLs

```
DELETE zstack/v1/vpcfirewalls/ruleSets/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vpcfirewalls/
ruleSets/62b6ef32f6573f01929c5020d976bd66?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
deleteMode	String	body	Optional. The delete mode.	• Permissive • Enforcing	4.0.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteFirewallRuleSetAction action = new DeleteFirewallRuleSetAction
();
action.uuid = "62b6ef32f6573f01929c5020d976bd66";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteFirewallRuleSetAction.Result res = action.call();
```

Python SDK

```
DeleteFirewallRuleSetAction action = DeleteFirewallRuleSetAction()
action.uuid = "62b6ef32f6573f01929c5020d976bd66"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteFirewallRuleSetAction.Result res = action.call()
```

5.4.1.6.10 AttachFirewallRuleSetToL3

API Request

URLs

```
POST zstack/v1/vpcfirewalls/ruleSets/{ruleSetUuid}/l3networks/{l3Uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vpcFirewallUuid": "d5a0a7ce8bdf315a87189bb3f1c12f98",
    "forward": "in"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":
{"vpcFirewallUuid":"d5a0a7ce8bdf315a87189bb3f1c12f98","forward":"in"}}'
http://localhost:8080/zstack/v1/vpcfirewalls/
ruleSets/c9ada0bdf0ec3b0a87e534030e4d9b8c/l3networks/
b552d497789f3609a764e03fbdf535ad
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vpcFirewallUuid	String	body (contained in the params structure)			3.6.0
l3Uuid	String	url			3.6.0
forward	String	body (contained in the params structure)		- in - out	3.6.0
ruleSetUuid	String	url			3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "id": 1.0,
    "ruleSetUuid": "91e9fed42a113c0395a81920c4179a43",
    "l3NetworkUuid": "ad2bbeb82973334fa0ab243f52088fea",
    "packetsForwardType": "in",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.6.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	VpcFirewallRuleSetL3 RefInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
id	long		3.6.0
ruleSetUuid	String		3.6.0
I3NetworkUuid	String		3.6.0
createDate	Timestamp	The creation date.	3.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.6.0
packetsForwardType	PacketsForwardType	See packetsForwardType .	3.6.0

#packetsForwardType

Name	Type	Description	Starting Version
in	PacketsForwardType		3.6.0
out	PacketsForwardType		3.6.0
local	PacketsForwardType		3.6.0

SDK Sample

Java SDK

```
AttachFirewallRuleSetToL3Action action = new AttachFirewallRuleSetToL3Action();
action.vpcFirewallUuid = "d5a0a7ce8bdf315a87189bb3f1c12f98";
action.l3Uuid = "b552d497789f3609a764e03fbdf535ad";
action.forward = "in";
action.ruleSetUuid = "c9ada0bdf0ec3b0a87e534030e4d9b8c";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachFirewallRuleSetToL3Action.Result res = action.call();
```

Python SDK

```
AttachFirewallRuleSetToL3Action action = AttachFirewallRuleSetToL3Action()
action.vpcFirewallUuid = "d5a0a7ce8bdf315a87189bb3f1c12f98"
action.l3Uuid = "b552d497789f3609a764e03fbdf535ad"
action.forward = "in"
action.ruleSetUuid = "c9ada0bdf0ec3b0a87e534030e4d9b8c"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachFirewallRuleSetToL3Action.Result res = action.call()
```

5.4.1.6.11 DetachFirewallRuleSetFromL3

API Request

URLs

```
POST zstack/v1/vpcfirewalls/l3networks/{l3Uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vpcFirewallUuid": "582cdc20cf313b8696da15f67f71c38f",
    "forward": "in"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vpcFirewallUuid":"582cdc20cf313b8696da15f67f71c38f","forward":"in"}}'
http://localhost:8080/zstack/v1/vpcfirewalls/
l3networks/912cc5a14b193c2fa76290eac7046230
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vpcFirewal IUuid	String	body (contained in the params structure)	The firewall UUID.		3.6.0
l3Uuid	String	url	The L3 network UUID.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
forward	String	body (contained in the params structure)	The forwarding direction.	- in - out	3.6.0
ruleSetUuid	String	url			4.0.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DetachFirewallRuleSetFromL3Action action = new DetachFirewallRuleSetFromL3Action();
action.vpcFirewallUuid = "582cdc20cf313b8696da15f67f71c38f";
action.l3Uuid = "912cc5a14b193c2fa76290eac7046230";
action.forward = "in";
action.ruleSetUuid = "a54a917869733b5590053eb3f4505089";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachFirewallRuleSetFromL3Action.Result res = action.call();
```

Python SDK

```
DetachFirewallRuleSetFromL3Action action = DetachFirewallRuleSetFromL3Action()
action.vpcFirewallUuid = "582cdc20cf313b8696da15f67f71c38f"
action.l3Uuid = "912cc5a14b193c2fa76290eac7046230"
action.forward = "in"
action.ruleSetUuid = "a54a917869733b5590053eb3f4505089"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
DetachFirewallRuleSetFromL3Action.Result res = action.call()
```

5.4.1.6.12 QueryFirewallRuleSetL3Ref

API Request

URLs

```
GET zstack/v1/vpcfirewalls/l3networks/rulesets/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/l3networks/
rulesets/refs
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryFirewallRuleSetL3Ref**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "id": 1.0,
      "ruleSetUuid": "f4575926f7a13c82a0d610dfac995ffa",
      "l3NetworkUuid": "85044a1e0ccb3c859c0b024e967fb191",
      "packetsForwardType": "in",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
id	long		3.6.0
ruleSetUuid	String		3.6.0
l3NetworkUuid	String	The L3 network UUID.	3.6.0
vpcFirewallUuid	String		3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
packetsForwardType	PacketsForwardType	See packetsForwardType .	3.6.0

#packetsForwardType

Name	Type	Description	Starting Version
in	PacketsForwardType		3.6.0
out	PacketsForwardType		3.6.0
local	PacketsForwardType		3.6.0

SDK Sample

Java SDK

```
QueryFirewallRuleSetL3RefAction action = new QueryFirewallRuleSetL3RefAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryFirewallRuleSetL3RefAction.Result res = action.call();
```

Python SDK

```
QueryFirewallRuleSetL3RefAction action = QueryFirewallRuleSetL3RefAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryFirewallRuleSetL3RefAction.Result res = action.call()
```

5.4.1.6.13 CreateFirewallRule

API Request

URLs

```
POST /v1/vpcfirewalls/rules
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "ruleSetUuid": "0079c9339a7f32d69c289119ff223d81",
    "action": "accept",
    "protocol": "tcp",
    "destPort": "22",
    "sourcePort": "22",
    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "ruleNumber": 1001.0,
    "enableLog": false,
    "state": "disable",
```

```

    "description": "example rule des"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vpcFirewallUuid": "bd79e42aa97f360585e91a8defa639e2", "ruleSetUuid": "0e453dd8d654
reply", "ruleNumber": 1001.0, "enableLog": false, "state": "disable", "description": "exa
rule des"}}' http://localhost:8080/zstack/v1/vpcfirewalls/rules

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ruleSetUuid	String	body (contained in the params structure)	The ruleset UUID.		3.6.0
action	String	body (contained in the params structure)	The action taken against data packets.	• drop • accept • reject	3.6.0
protocol	String	body (contained in the params structure)	Optional. The protocol.		3.6.0
destPort	String	body (contained in the params structure)	Optional. The destination port.		3.6.0
sourcePort	String	body (contained in the params structure)	Optional. The source port.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
sourceIp	String	body (contained in the params structure)	Optional. The source IP address.		3.6.0
destIp	String	body (contained in the params structure)	Optional. The destination IP address.		3.6.0
allowStates	String	body (contained in the params structure)	Optional. The allow status of packets.		3.6.0
tcpFlag	String	body (contained in the params structure)	Optional. The TCP flag.		3.6.0
icmpTypeName	String	body (contained in the params structure)	Optional. The ICMP type.		3.6.0
ruleNumber	Integer	body (contained in the params structure)	The priority of the rule.		3.6.0
enableLog	boolean	body (contained in the params structure)	Optional. Specifies whether to enable logging.		3.6.0
state	String	body (contained in the params structure)	The action that changes the state of the rule.	• enable • disable	3.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the rule.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
resourceUuid	String	body (contained in the params structure)	Optional. The rule UUID.		3.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUIDs.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "ruleSetUuid": "34db2df69d593f0b893a2cc9035bd2f3",
    "action": "accept",
    "protocol": "TCP",
    "destPort": "22",
    "sourcePort": "22",
    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "ruleNumber": 1001.0,
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "enableLog": false,
    "isApplied": true,
    "expired": false,
    "state": "disable",
    "isDefault": false,
    "description": "example rule des"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0

Name	Type	Description	Starting Version
inventory	VpcFirewallRuleInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The firewall rule UUID.	3.6.0
ruleSetUuid	String	The ruleset UUID.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
sourceIp	String	The source IP address.	3.6.0

Name	Type	Description	Starting Version
destIp	String	The destination IP address.	3.6.0
ruleNumber	Integer	The priority of the rule.	3.6.0
allowStates	String	Indicates the allow status of packets.	3.6.0
tcpFlag	String	The TCP flag.	3.6.0
icmpTypeName	String	The ICMP type.	3.6.0
isDefault	boolean	Indicates whether the rule is applied.	3.6.0
expired	boolean	Indicates whether the rule is expired.	4.0.0
isApplied	boolean	Indicates whether the rule is a system rule.	4.0.0
description	String	The detailed description of the rule.	3.6.0
createDate	Timestamp	The time when the rule was created.	3.6.0
lastOpDate	Timestamp	The time when the rule was last modified.	3.6.0
action	ActionType	See action .	3.6.0
protocol	ProtocolType	See protocol .	3.6.0
state	FirewallRuleState	See state .	3.6.0

#action

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0
accept	ActionType		3.6.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		3.6.0

Name	Type	Description	Starting Version
all	ProtocolType		3.6.0
ah	ProtocolType		3.6.0
ax.25	ProtocolType		3.6.0
dccp	ProtocolType		3.6.0
ddp	ProtocolType		3.6.0
egp	ProtocolType		3.6.0
eigrp	ProtocolType		3.6.0
encap	ProtocolType		3.6.0
esp	ProtocolType		3.6.0
etherip	ProtocolType		3.6.0
fc	ProtocolType		3.6.0
ggp	ProtocolType		3.6.0
gre	ProtocolType		3.6.0
hip	ProtocolType		3.6.0
hmp	ProtocolType		3.6.0
icmp	ProtocolType		3.6.0
ipdr-cmtp	ProtocolType		3.6.0
idpr	ProtocolType		3.6.0
igmp	ProtocolType		3.6.0
igp	ProtocolType		3.6.0
ip	ProtocolType		3.6.0
ipcomp	ProtocolType		3.6.0
ipencap	ProtocolType		3.6.0
ipip	ProtocolType		3.6.0
isis	ProtocolType		3.6.0
iso-tp4	ProtocolType		3.6.0
l2tp	ProtocolType		3.6.0
manet	ProtocolType		3.6.0
mpls-in-ip	ProtocolType		3.6.0

Name	Type	Description	Starting Version
ospf	ProtocolType		3.6.0
pim	ProtocolType		3.6.0
pup	ProtocolType		3.6.0
rdp	ProtocolType		3.6.0
rohc	ProtocolType		3.6.0
rsfp	ProtocolType		3.6.0
rsvp	ProtocolType		3.6.0
sctp	ProtocolType		3.6.0
skip	ProtocolType		3.6.0
st	ProtocolType		3.6.0
tcp	ProtocolType		3.6.0
udp	ProtocolType		3.6.0
udplite	ProtocolType		3.6.0
vmtp	ProtocolType		3.6.0
vrrp	ProtocolType		3.6.0
wesp	ProtocolType		3.6.0
xns-idp	ProtocolType		3.6.0
xtp	ProtocolType		3.6.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		3.6.0
enable	FirewallRuleState		3.6.0

SDK Sample

Java SDK

```
CreateFirewallRuleAction action = new CreateFirewallRuleAction();
action.vpcFirewallUuid = "bd79e42aa97f360585e91a8defa639e2";
action.ruleSetUuid = "0e453dd8d6543540ac4ae293806c9d04";
action.action = "accept";
action.protocol = "tcp";
action.destPort = "22";
action.sourcePort = "22";
```

```

action.sourceIp = "192.168.1.2";
action.destIp = "192.168.1.1";
action.allowStates = "invalid,new";
action.tcpFlag = "SYN";
action.icmpTypeName = "echo-reply";
action.ruleNumber = 1001.0;
action.enableLog = false;
action.state = "disable";
action.description = "example rule des";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateFirewallRuleAction.Result res = action.call();

```

Python SDK

```

CreateFirewallRuleAction action = CreateFirewallRuleAction()
action.vpcFirewallUuid = "bd79e42aa97f360585e91a8defa639e2"
action.ruleSetUuid = "0e453dd8d6543540ac4ae293806c9d04"
action.action = "accept"
action.protocol = "tcp"
action.destPort = "22"
action.sourcePort = "22"
action.sourceIp = "192.168.1.2"
action.destIp = "192.168.1.1"
action.allowStates = "invalid,new"
action.tcpFlag = "SYN"
action.icmpTypeName = "echo-reply"
action.ruleNumber = 1001.0
action.enableLog = false
action.state = "disable"
action.description = "example rule des"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateFirewallRuleAction.Result res = action.call()

```

5.4.1.6.14 CreateFirewallRuleFromConfigFile

API Request

URLs

```
POST zstack/v1/vpcfirewalls/rules/from-file
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "ruleInfo": "[{\\"ruleNumber\\":1004,\\"action\\":\\"accept\\",\\"allowStates\\":\\"new,established,invalid,related\\",\\"protocol\\":\\"ICMP\\",\\"tcpFlag\\":null,\\"icmpTypeName\\":\\"echo-reply\\",\\"sourcePort\\":null,\\"destPort\\":null,\\"sourceIp\\":\\"192.168.0.41\\",\\"destIp\\":\\"192.168.0.50\\",\\"description\\":null,\\"state\\":\\"disable\\",\\"ruleSetUuid\\":\\"${defaultRuleSet.uuid}\\",{\\"ruleNumber\\":1003,\\"action\\":\\"reject\\",\\"allowStates\\":\\"new,established,invalid,related\\",\\"protocol\\":\\"UDP\\",\\"tcpFlag\\":null,\\"icmpTypeName\\":null,\\"sourcePort

```

```

\":"77\","destPort\":"88\","sourceIp\":"192.168.0.31\","destIp
\":"192.168.0.40\","description\":null,\"state\":"disable\","
ruleSetUuid\":" \${defaultRuleSet.uuid}\",{\\"ruleNumber\":"1002,\"
action\":"drop\","allowStates\":"new,invalid,related\","protocol
\":"TCP\","tcpFlag\":"SYN,ACK\","icmpTypeName\":null,\"sourcePort
\":"55\","destPort\":"66\","sourceIp\":"192.168.0.21\","destIp
\":"192.168.0.30\","description\":null,\"state\":"disable\","
ruleSetUuid\":" \${defaultRuleSet.uuid}\",{\\"ruleNumber\":"1001,\"
action\":"accept\","allowStates\":"new,established,invalid,related
\","protocol\":"ALL\","tcpFlag\":null,\"icmpTypeName\":null,\"
sourcePort\":null,\"destPort\":null,\"sourceIp\":"192.168.0.10\","
destIp\":"192.168.0.20\","description\":null,\"state\":"enable\",
\\"ruleSetUuid\":" \${defaultRuleSet.uuid}\"]}]
},
"systemTags": [],
"userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"params":{"ruleInfo":[{"ruleNumber\":"1004,\"action
\":"accept\","allowStates\":"new,established,invalid,related
\","protocol\":"ICMP\","tcpFlag\":null,\"icmpTypeName\":"
echo-reply\","sourcePort\":null,\"destPort\":null,\"sourceIp\":"
192.168.0.41\","destIp\":"192.168.0.50\","description\":null,
\"state\":"disable\","ruleSetUuid\":" \${defaultRuleSet.uuid}\",
{\\"ruleNumber\":"1003,\"action\":"reject\","allowStates\":"
new,established,invalid,related\","protocol\":"UDP\","tcpFlag
\":null,\"icmpTypeName\":null,\"sourcePort\":"77\","destPort\":"
88\","sourceIp\":"192.168.0.31\","destIp\":"192.168.0.40\",
\"description\":null,\"state\":"disable\","ruleSetUuid\":"
\${defaultRuleSet.uuid}\",{\\"ruleNumber\":"1002,\"action\":"drop\",
\"allowStates\":"new,invalid,related\","protocol\":"TCP\","tcpFlag
\":"SYN,ACK\","icmpTypeName\":null,\"sourcePort\":"55\","destPort
\":"66\","sourceIp\":"192.168.0.21\","destIp\":"192.168.0.30\",
\"description\":null,\"state\":"disable\","ruleSetUuid\":"
\${defaultRuleSet.uuid}\",{\\"ruleNumber\":"1001,\"action\":"
accept\","allowStates\":"new,established,invalid,related
\","protocol\":"ALL\","tcpFlag\":null,\"icmpTypeName\":null,
\"sourcePort\":null,\"destPort\":null,\"sourceIp\":"192.168.0.10\",
\"destIp\":"192.168.0.20\","description\":null,\"state\":"enable
\", \"ruleSetUuid\":" \${defaultRuleSet.uuid}\"]}]}' http://
localhost:8080/zstack/v1/vpcfirewalls/rules/from-file

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ruleInfo	String	body (contained in the params structure)	The firewall rule information.		4.4.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.4.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		4.4.0
systemTags	List	body	Optional. The system tags.		4.4.0
userTags	List	body	Optional. The user tags.		4.4.0

API Response

Sample Response

```
{
  "inventory": [
    {
      "name": "name",
      "actionType": "drop",
      "description": "example-des",
      "enableDefaultLog": false,
      "isDefault": false,
      "isApplied": true
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.4.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.4.0

Name	Type	Description	Starting Version
inventory	VpcFirewallRuleSetInventory	See inventory .	4.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.0
description	String	The brief description of the error.	4.4.0
details	String	The details about the error.	4.4.0
elaboration	String	The reserved field. Default value: null.	4.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.0
name	String	The resource name.	4.4.0
description	String	The detailed description of the resource.	4.4.0
isDefault	boolean		4.4.0
isApplied	boolean		4.4.0
createDate	Timestamp	The creation time.	4.4.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation time	4.4.0
actionType	ActionType	See actionType .	4.4.0

#actionType

Name	Type	Description	Starting Version
drop	ActionType		4.4.0
reject	ActionType		4.4.0
accept	ActionType		4.4.0

SDK Sample

Java SDK

```
CreateFirewallRuleFromConfigFileAction action = new CreateFire
wallRuleFromConfigFileAction();
action.ruleInfo = "[{"ruleNumber":1004,"action":"accept","allowStates
":"new,established,invalid,related","protocol":"ICMP","tcpFlag":null,"
icmpTypeName":"echo-reply","sourcePort":null,"destPort":null,"sourceIp
":"192.168.0.41","destIp":"192.168.0.50","description":null,"state":"
disable","ruleSetUuid":"${defaultRuleSet.uuid}"},{ "ruleNumber":1003
,"action":"reject","allowStates":"new,established,invalid,related",
"protocol":"UDP","tcpFlag":null,"icmpTypeName":null,"sourcePort":"77
","destPort":"88","sourceIp":"192.168.0.31","destIp":"192.168.0.40",
"description":null,"state":"disable", "ruleSetUuid":"${defaultRuleSet
.uuid}"},{ "ruleNumber":1002,"action":"drop","allowStates":"new,invalid
,related","protocol":"TCP","tcpFlag":"SYN,ACK","icmpTypeName":null
,"sourcePort":"55","destPort":"66","sourceIp":"192.168.0.21","destIp
":"192.168.0.30","description":null,"state":"disable", "ruleSetUuid
":"${defaultRuleSet.uuid}"},{ "ruleNumber":1001,"action":"accept",
"allowStates":"new,established,invalid,related","protocol":"ALL",
"tcpFlag":null,"icmpTypeName":null,"sourcePort":null,"destPort":null,
"sourceIp":"192.168.0.10","destIp":"192.168.0.20","description":null,
"state":"enable", "ruleSetUuid":"${defaultRuleSet.uuid}"]}";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateFirewallRuleFromConfigFileAction.Result res = action.call();
```

Python SDK

```
CreateFirewallRuleFromConfigFileAction action = CreateFirewallRuleFr
omConfigFileAction()
action.ruleInfo = [{"ruleNumber":1004,"action":"accept","allowStates
":"new,established,invalid,related","protocol":"ICMP","tcpFlag":null,"
icmpTypeName":"echo-reply","sourcePort":null,"destPort":null,"sourceIp
":"192.168.0.41","destIp":"192.168.0.50","description":null,"state":"
disable", "ruleSetUuid":"${defaultRuleSet.uuid}"},{ "ruleNumber":1003
,"action":"reject","allowStates":"new,established,invalid,related",
"protocol":"UDP","tcpFlag":null,"icmpTypeName":null,"sourcePort":"77
","destPort":"88","sourceIp":"192.168.0.31","destIp":"192.168.0.40",
"description":null,"state":"disable", "ruleSetUuid":"${defaultRuleSet
```

```
.uuid}}}, {"ruleNumber":1002,"action":"drop","allowStates":"new,invalid,related","protocol":"TCP","tcpFlag":"SYN,ACK","icmpTypeName":null,"sourcePort":"55","destPort":"66","sourceIp":"192.168.0.21","destIp":"192.168.0.30","description":null,"state":"disable", "ruleSetUuid":"${defaultRuleSet.uuid}}}, {"ruleNumber":1001,"action":"accept","allowStates":"new,established,invalid,related","protocol":"ALL","tcpFlag":null,"icmpTypeName":null,"sourcePort":null,"destPort":null,"sourceIp":"192.168.0.10","destIp":"192.168.0.20","description":null,"state":"enable", "ruleSetUuid": "${defaultRuleSet.uuid}}}]"}
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateFirewallRuleFromConfigFileAction.Result res = action.call()
```

5.4.1.6.15 QueryFirewallRule

API Request

URLs

```
GET zstack/v1/vpcfirewalls/rules
```

```
GET zstack/v1/vpcfirewalls/rules/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/rules
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/rules/ace430872549342fbaca32f1d4c333e1
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryFirewallRule**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "ruleSetUuid": "9fe12b6d1b3d38dbab13405722ccf264",
      "action": "accept",
      "protocol": "TCP",
      "destPort": "22",
      "sourcePort": "22",
```



```

    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "ruleNumber": 1001.0,
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "enableLog": false,
    "isApplied": true,
    "expired": false,
    "state": "disable",
    "isDefault": false,
    "description": "example rule des"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.6.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The firewall rule UUID.	3.6.0
ruleSetUuid	String	The ruleset UUID.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destIp	String	The destination IP address.	3.6.0
ruleNumber	Integer	The priority of the rule.	3.6.0
allowStates	String	The allow status of data packets.	3.6.0
tcpFlag	String	The TCP flag.	3.6.0
icmpTypeName	String	The ICMP type.	3.6.0
isDefault	boolean	Indicates whether the rule is applied.	3.6.0
isApplied	boolean	Indicates whether the rule is expired.	4.0.0
expired	boolean	Indicates whether the rule is a system rule.	4.0.0
description	String	The detailed description of the rule.	3.6.0
createDate	Timestamp	The time when the rule was created.	3.6.0
lastOpDate	Timestamp	The time when the rule was last modified.	3.6.0
action	ActionType	See action .	3.6.0
protocol	ProtocolType	See protocol .	3.6.0
state	FirewallRuleState	See state .	3.6.0

#action

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0
accept	ActionType		3.6.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		3.6.0
all	ProtocolType		3.6.0
ah	ProtocolType		3.6.0
ax.25	ProtocolType		3.6.0
dccp	ProtocolType		3.6.0
ddp	ProtocolType		3.6.0
egp	ProtocolType		3.6.0
eigrp	ProtocolType		3.6.0
encap	ProtocolType		3.6.0
esp	ProtocolType		3.6.0
etherip	ProtocolType		3.6.0
fc	ProtocolType		3.6.0
ggp	ProtocolType		3.6.0
gre	ProtocolType		3.6.0
hip	ProtocolType		3.6.0
hmp	ProtocolType		3.6.0
icmp	ProtocolType		3.6.0
ipdr-cmtp	ProtocolType		3.6.0
idpr	ProtocolType		3.6.0
igmp	ProtocolType		3.6.0
igp	ProtocolType		3.6.0
ip	ProtocolType		3.6.0

Name	Type	Description	Starting Version
ipcomp	ProtocolType		3.6.0
ipencap	ProtocolType		3.6.0
ipip	ProtocolType		3.6.0
isis	ProtocolType		3.6.0
iso-tp4	ProtocolType		3.6.0
l2tp	ProtocolType		3.6.0
manet	ProtocolType		3.6.0
mpls-in-ip	ProtocolType		3.6.0
ospf	ProtocolType		3.6.0
pim	ProtocolType		3.6.0
pup	ProtocolType		3.6.0
rdp	ProtocolType		3.6.0
rohc	ProtocolType		3.6.0
rsfp	ProtocolType		3.6.0
rsvp	ProtocolType		3.6.0
sctp	ProtocolType		3.6.0
skip	ProtocolType		3.6.0
st	ProtocolType		3.6.0
tcp	ProtocolType		3.6.0
udp	ProtocolType		3.6.0
udplite	ProtocolType		3.6.0
vmtp	ProtocolType		3.6.0
vrrp	ProtocolType		3.6.0
wesp	ProtocolType		3.6.0
xns-idp	ProtocolType		3.6.0
xtp	ProtocolType		3.6.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		3.6.0
enable	FirewallRuleState		3.6.0

SDK Sample

Java SDK

```
QueryFirewallRuleAction action = new QueryFirewallRuleAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryFirewallRuleAction.Result res = action.call();
```

Python SDK

```
QueryFirewallRuleAction action = QueryFirewallRuleAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryFirewallRuleAction.Result res = action.call()
```

5.4.1.6.16 UpdateFirewallRule

API Request

URLs

```
PUT zstack/v1/vpcfirewalls/rules/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateFirewallRule": {
    "ruleSetUuid": "c7b605d7c7e037f8b4df43bfe5a26d0f",
    "action": "accept",
    "protocol": "tcp",
    "destPort": "22",
    "sourcePort": "22",
    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "ruleNumber": 1001.0,
    "enableLog": false,
    "state": "disable",
    "description": "example rule des"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateFirewallRule":
{"vpcFirewallUuid":"181da73e752432b283d3096bb29afb59","ruleSetUuid":"cb6db506c523
reply","ruleNumber":1001.0,"enableLog":false,"state":"disable","description":"exa
rule des"}}' http://localhost:8080/zstack/v1/vpcfirewalls/
rules/7e9bd2ad1f48320d8782d737b262abb1/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ruleSetUuid	String	body (contained in the updateFirewallRule structure)	The ruleset UUID.		3.6.0
uuid	String	url	The rule UUID.		3.6.0
action	String	body (contained in the updateFirewallRule structure)	The action taken against data packets.	• drop • reject • accept	3.6.0
protocol	String	body (contained in the updateFirewallRule structure)	Optional. The protocol.		3.6.0
destPort	String	body (contained in the	Optional. The destination port.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		updateFire wallRule structure)			
sourcePort	String	body (contained in the updateFire wallRule structure)	Optional. The source port.		3.6.0
sourceIp	String	body (contained in the updateFire wallRule structure)	Optional. The source IP address.		3.6.0
destIp	String	body (contained in the updateFire wallRule structure)	Optional. The destination IP address.		3.6.0
allowStates	String	body (contained in the updateFire wallRule structure)	Optional. The allow status of packets.		3.6.0
tcpFlag	String	body (contained in the updateFire wallRule structure)	Optional. The TCP flag.		3.6.0
icmpTypeName	String	body (contained in the updateFire	Optional. The ICMP type.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		wallRule structure)			
ruleNumber	Integer	body (contained in the updateFire wallRule structure)	The priority of the rule.		3.6.0
enableLog	boolean	body (contained in the updateFire wallRule structure)	Optional. Specifies whether to enable logging .		3.6.0
state	String	body (contained in the updateFire wallRule structure)	The action that changes the state of the rule.	• enable • disable	3.6.0
description	String	body (contained in the updateFire wallRule structure)	Optional. The detailed description of the rule.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "ruleSetUuid": "52099ab881ba30a09589fa0040a1b6a2",
    "action": "accept",
    "protocol": "TCP",
```



```

"destPort": "22",
"sourcePort": "22",
"sourceIp": "192.168.1.2",
"destIp": "192.168.1.1",
"ruleNumber": 1001.0,
"allowStates": "invalid,new",
"tcpFlag": "SYN",
"icmpTypeName": "echo-reply",
"enableLog": false,
"isApplied": true,
"expired": false,
"state": "disable",
"isDefault": false,
"description": "example rule des"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	VpcFirewallRuleInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root	3.6.0

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The firewall rule UUID.	3.6.0
ruleSetUuid	String	The ruleset UUID.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destIp	String	The destination IP address.	3.6.0
ruleNumber	Integer	The priority of the rule.	3.6.0
allowStates	String	Indicates the allow status of packets.	3.6.0
tcpFlag	String	The TCP flag.	3.6.0
icmpTypeName	String	The ICMP type.	3.6.0
isApplied	boolean	Indicates whether the rule is applied.	4.0.0
expired	boolean	Indicates whether the rule is expired.	4.0.0
isDefault	boolean	Indicates whether the rule is a default rule.	3.6.0
description	String	The detailed description of the resource.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
action	ActionType	See action .	3.6.0
protocol	ProtocolType	See protocol .	3.6.0

Name	Type	Description	Starting Version
state	FirewallRuleState	See state .	3.6.0

#action

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0
accept	ActionType		3.6.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		3.6.0
all	ProtocolType		3.6.0
ah	ProtocolType		3.6.0
ax.25	ProtocolType		3.6.0
dccp	ProtocolType		3.6.0
ddp	ProtocolType		3.6.0
egp	ProtocolType		3.6.0
eigrp	ProtocolType		3.6.0
encap	ProtocolType		3.6.0
esp	ProtocolType		3.6.0
etherip	ProtocolType		3.6.0
fc	ProtocolType		3.6.0
ggp	ProtocolType		3.6.0
gre	ProtocolType		3.6.0
hip	ProtocolType		3.6.0
hmp	ProtocolType		3.6.0
icmp	ProtocolType		3.6.0
ipdr-cmtp	ProtocolType		3.6.0
idpr	ProtocolType		3.6.0
igmp	ProtocolType		3.6.0

Name	Type	Description	Starting Version
igp	ProtocolType		3.6.0
ip	ProtocolType		3.6.0
ipcomp	ProtocolType		3.6.0
ipencap	ProtocolType		3.6.0
ipip	ProtocolType		3.6.0
isis	ProtocolType		3.6.0
iso-tp4	ProtocolType		3.6.0
l2tp	ProtocolType		3.6.0
manet	ProtocolType		3.6.0
mpls-in-ip	ProtocolType		3.6.0
ospf	ProtocolType		3.6.0
pim	ProtocolType		3.6.0
pup	ProtocolType		3.6.0
rdp	ProtocolType		3.6.0
rohc	ProtocolType		3.6.0
rsdp	ProtocolType		3.6.0
rsvp	ProtocolType		3.6.0
sctp	ProtocolType		3.6.0
skip	ProtocolType		3.6.0
st	ProtocolType		3.6.0
tcp	ProtocolType		3.6.0
udp	ProtocolType		3.6.0
udplite	ProtocolType		3.6.0
vmtp	ProtocolType		3.6.0
vrrp	ProtocolType		3.6.0
wesp	ProtocolType		3.6.0
xns-idp	ProtocolType		3.6.0
xtp	ProtocolType		3.6.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		3.6.0
enable	FirewallRuleState		3.6.0

SDK Sample

Java SDK

```
UpdateFirewallRuleAction action = new UpdateFirewallRuleAction();
action.ruleSetUuid = "c7b605d7c7e037f8b4df43bfe5a26d0f";
action.uuid = "7e9bd2ad1f48320d8782d737b262abb1";
action.action = "accept";
action.protocol = "tcp";
action.destPort = "22";
action.sourcePort = "22";
action.sourceIp = "192.168.1.2";
action.destIp = "192.168.1.1";
action.allowStates = "invalid,new";
action.tcpFlag = "SYN";
action.icmpTypeName = "echo-reply";
action.ruleNumber = 1001.0;
action.enableLog = false;
action.state = "disable";
action.description = "example rule des";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateFirewallRuleAction.Result res = action.call();
```

Python SDK

```
UpdateFirewallRuleAction action = UpdateFirewallRuleAction()
action.ruleSetUuid = "c7b605d7c7e037f8b4df43bfe5a26d0f"
action.uuid = "7e9bd2ad1f48320d8782d737b262abb1"
action.action = "accept"
action.protocol = "tcp"
action.destPort = "22"
action.sourcePort = "22"
action.sourceIp = "192.168.1.2"
action.destIp = "192.168.1.1"
action.allowStates = "invalid,new"
action.tcpFlag = "SYN"
action.icmpTypeName = "echo-reply"
action.ruleNumber = 1001.0
action.enableLog = false
action.state = "disable"
action.description = "example rule des"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateFirewallRuleAction.Result res = action.call()
```

5.4.1.6.17 DeleteFirewallRule

API Request

URLs

```
DELETE zstack/v1/vpcfirewalls/rules/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vpcfirewalls/
rules/6238605440b535dd9f7d5d033a732659?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
deleteMode	String	body	Optional. The delete mode.	• Permissive • Enforcing	4.0.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteFirewallRuleAction action = new DeleteFirewallRuleAction();
action.uuid = "6238605440b535dd9f7d5d033a732659";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteFirewallRuleAction.Result res = action.call();
```

Python SDK

```
DeleteFirewallRuleAction action = DeleteFirewallRuleAction()
action.uuid = "6238605440b535dd9f7d5d033a732659"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteFirewallRuleAction.Result res = action.call()
```

5.4.1.6.18 ChangeFirewallRuleState

API Request

URLs

```
PUT zstack/v1/vpcfirewalls/rules/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeFirewallRuleState": {
    "state": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"changeFirewallRuleState":{"state":"disable"}}'
http://localhost:8080/zstack/v1/vpcfirewalls/
rules/4eef3024e5bd36f38be22b5af9807b20/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
state	String	body (contained in the changeFirewallRuleState structure)	The action to change the state of the firewall rule.	• enable • disable	3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "ruleSetUuid": "387ccd99cb2b3374a24f86108c3b8653",
    "action": "accept",
    "protocol": "TCP",
    "destPort": "22",
    "sourcePort": "22",
    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "ruleNumber": 1001.0,
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "enableLog": false,
    "isApplied": true,
    "expired": false,
    "isDefault": false,
    "description": "example rule des"
  }
}
```


}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	VpcFirewallRuleInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The firewall rule UUID.	3.6.0

Name	Type	Description	Starting Version
ruleSetUuid	String	The ruleset UUID.	3.6.0
destPort	String	The destination port.	3.6.0
sourcePort	String	The source port.	3.6.0
sourceIp	String	The source IP address.	3.6.0
destIp	String	The destination IP address.	3.6.0
ruleNumber	Integer	The priority of the rule.	3.6.0
allowStates	String	The allow status of data packets.	3.6.0
tcpFlag	String	The TCP flag.	3.6.0
icmpTypeName	String	The ICMP type.	3.6.0
isApplied	boolean	Indicates whether the rule is applied.	4.0.0
expired	boolean	Indicates whether the rule is expired.	4.0.0
isDefault	boolean	Indicates whether the rule is a system rule.	3.6.0
description	String	The detailed description of the rule.	3.6.0
createDate	Timestamp	The time when the rule was created.	3.6.0
lastOpDate	Timestamp	The time when the rule was last modified.	3.6.0
action	ActionType	See action .	3.6.0
protocol	ProtocolType	See protocol .	3.6.0
state	FirewallRuleState	See state .	3.6.0

#action

Name	Type	Description	Starting Version
drop	ActionType		3.6.0
reject	ActionType		3.6.0

Name	Type	Description	Starting Version
accept	ActionType		3.6.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		3.6.0
all	ProtocolType		3.6.0
ah	ProtocolType		3.6.0
ax.25	ProtocolType		3.6.0
dccp	ProtocolType		3.6.0
ddp	ProtocolType		3.6.0
egp	ProtocolType		3.6.0
eigrp	ProtocolType		3.6.0
encap	ProtocolType		3.6.0
esp	ProtocolType		3.6.0
etherip	ProtocolType		3.6.0
fc	ProtocolType		3.6.0
ggp	ProtocolType		3.6.0
gre	ProtocolType		3.6.0
hip	ProtocolType		3.6.0
hmp	ProtocolType		3.6.0
icmp	ProtocolType		3.6.0
ipdr-cmtp	ProtocolType		3.6.0
idpr	ProtocolType		3.6.0
igmp	ProtocolType		3.6.0
igp	ProtocolType		3.6.0
ip	ProtocolType		3.6.0
ipcomp	ProtocolType		3.6.0
ipencap	ProtocolType		3.6.0
ipip	ProtocolType		3.6.0

Name	Type	Description	Starting Version
isis	ProtocolType		3.6.0
iso-tp4	ProtocolType		3.6.0
l2tp	ProtocolType		3.6.0
manet	ProtocolType		3.6.0
mpls-in-ip	ProtocolType		3.6.0
ospf	ProtocolType		3.6.0
pim	ProtocolType		3.6.0
pup	ProtocolType		3.6.0
rdp	ProtocolType		3.6.0
rohc	ProtocolType		3.6.0
rsdp	ProtocolType		3.6.0
rsdp	ProtocolType		3.6.0
sctp	ProtocolType		3.6.0
skip	ProtocolType		3.6.0
st	ProtocolType		3.6.0
tcp	ProtocolType		3.6.0
udp	ProtocolType		3.6.0
udplite	ProtocolType		3.6.0
vmtp	ProtocolType		3.6.0
vrrp	ProtocolType		3.6.0
wesp	ProtocolType		3.6.0
xns-idp	ProtocolType		3.6.0
xtp	ProtocolType		3.6.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		3.6.0
enable	FirewallRuleState		3.6.0

SDK Sample

Java SDK

```
ChangeFirewallRuleStateAction action = new ChangeFirewallRuleStateAction();
action.uuid = "4eef3024e5bd36f38be22b5af9807b20";
action.state = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeFirewallRuleStateAction.Result res = action.call();
```

Python SDK

```
ChangeFirewallRuleStateAction action = ChangeFirewallRuleStateAction()
action.uuid = "4eef3024e5bd36f38be22b5af9807b20"
action.state = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeFirewallRuleStateAction.Result res = action.call()
```

5.4.1.6.19 CheckFirewallRuleConfigFile

API Request

URLs

```
POST zstack/v1/vpcfirewalls/rules/from-file/check
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "ruleInfo": "[{\"ruleNumber\":1004,\"action\":\"accept\", \"allowStates\":\"new,established,invalid,related\", \"protocol\":\"ICMP\", \"tcpFlag\":null, \"icmpTypeName\":\"echo-reply\", \"sourcePort\":null, \"destPort\":null, \"sourceIp\":\"192.168.0.41\", \"destIp\":\"192.168.0.50\", \"description\":null, \"state\":\"disable\", \"ruleSetUuid\":\"${defaultRuleSet.uuid}\"}, {\"ruleNumber\":1003,\"action\":\"reject\", \"allowStates\":\"new,established,invalid,related\", \"protocol\":\"UDP\", \"tcpFlag\":null, \"icmpTypeName\":null, \"sourcePort\":\"77\", \"destPort\":\"88\", \"sourceIp\":\"192.168.0.31\", \"destIp\":\"192.168.0.40\", \"description\":null, \"state\":\"disable\", \"ruleSetUuid\":\"${defaultRuleSet.uuid}\"}, {\"ruleNumber\":1002,\"action\":\"drop\", \"allowStates\":\"new,invalid,related\", \"protocol\":\"TCP\", \"tcpFlag\":\"SYN,ACK\", \"icmpTypeName\":null, \"sourcePort\":\"55\", \"destPort\":\"66\", \"sourceIp\":\"192.168.0.21\", \"destIp\":\"192.168.0.30\", \"description\":null, \"state\":\"disable\", \"ruleSetUuid\":\"${defaultRuleSet.uuid}\"}, {\"ruleNumber\":1001,\"action\":\"accept\", \"allowStates\":\"new,established,invalid,related\", \"protocol\":\"ALL\", \"tcpFlag\":null, \"icmpTypeName\":null, \"sourcePort\":null, \"destPort\":null, \"sourceIp\":\"192.168.0.10\", \"destIp\":\"192.168.0.20\", \"description\":null, \"state\":\"enable\", \"ruleSetUuid\":\"${defaultRuleSet.uuid}\"}]"
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"params":{"ruleInfo":[{"ruleNumber\":"1004","\action\":"accept","\allowStates\":"new,established,invalid,related","\protocol\":"ICMP","\tcpFlag\":null,"\icmpTypeName\":"echo-reply","\sourcePort\":null,"\destPort\":null,"\sourceIp\":"192.168.0.41","\destIp\":"192.168.0.50","\description\":null,"\state\":"disable","\ruleSetUuid\":"${defaultRuleSet.uuid}\"},{"ruleNumber\":"1003","\action\":"reject","\allowStates\":"new,established,invalid,related","\protocol\":"UDP","\tcpFlag\":null,"\icmpTypeName\":null,"\sourcePort\":"77","\destPort\":"88","\sourceIp\":"192.168.0.31","\destIp\":"192.168.0.40","\description\":null,"\state\":"disable","\ruleSetUuid\":"${defaultRuleSet.uuid}\"},{"ruleNumber\":"1002","\action\":"drop","\allowStates\":"new,invalid,related","\protocol\":"TCP","\tcpFlag\":"SYN,ACK","\icmpTypeName\":null,"\sourcePort\":"55","\destPort\":"66","\sourceIp\":"192.168.0.21","\destIp\":"192.168.0.30","\description\":null,"\state\":"disable","\ruleSetUuid\":"${defaultRuleSet.uuid}\"},{"ruleNumber\":"1001","\action\":"accept","\allowStates\":"new,established,invalid,related","\protocol\":"ALL","\tcpFlag\":null,"\icmpTypeName\":null,"\sourcePort\":null,"\destPort\":null,"\sourceIp\":"192.168.0.10","\destIp\":"192.168.0.20","\description\":null,"\state\":"enable","\ruleSetUuid\":"${defaultRuleSet.uuid}\"}]}' http://localhost:8080/zstack/v1/vpcfirewalls/rules/from-file/check

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ruleInfo	String	body (contained in the params structure)	The firewall rule information.		4.4.0
systemTags	List	body	Optional. The system tags.		4.4.0
userTags	List	body	Optional. The user tags.		4.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
CheckFirewallRuleConfigFileAction action = new CheckFirewallRuleCon
figFileAction();
action.ruleInfo = "[{\"ruleNumber\":1004,\"action\":\"accept\",\"allowStates
\":\"new,established,invalid,related\",\"protocol\":\"ICMP\",\"tcpFlag\":null,\"
icmpTypeName\":\"echo-reply\",\"sourcePort\":null,\"destPort\":null,\"sourceIp
\":\"192.168.0.41\",\"destIp\":\"192.168.0.50\",\"description\":null,\"state\":\"
disable\", \"ruleSetUuid\": \"${defaultRuleSet.uuid}\"},{\"ruleNumber\":1003
,\"action\":\"reject\",\"allowStates\":\"new,established,invalid,related\", \"
protocol\":\"UDP\",\"tcpFlag\":null,\"icmpTypeName\":null,\"sourcePort\":\"77
\", \"destPort\":\"88\", \"sourceIp\":\"192.168.0.31\", \"destIp\":\"192.168.0.40\", \"
description\":null,\"state\":\"disable\", \"ruleSetUuid\": \"${defaultRuleSet
.uuid}\"},{\"ruleNumber\":1002,\"action\":\"drop\",\"allowStates\":\"new,invalid
,related\", \"protocol\":\"TCP\", \"tcpFlag\":\"SYN,ACK\", \"icmpTypeName\":null
,\"sourcePort\":\"55\", \"destPort\":\"66\", \"sourceIp\":\"192.168.0.21\", \"destIp
\":\"192.168.0.30\", \"description\":null,\"state\":\"disable\", \"ruleSetUuid
\": \"${defaultRuleSet.uuid}\"},{\"ruleNumber\":1001,\"action\":\"accept\", \"
allowStates\":\"new,established,invalid,related\", \"protocol\":\"ALL\", \"
tcpFlag\":null,\"icmpTypeName\":null,\"sourcePort\":null,\"destPort\":null,\"
sourceIp\":\"192.168.0.10\", \"destIp\":\"192.168.0.20\", \"description\":null,\"
state\":\"enable\", \"ruleSetUuid\": \"${defaultRuleSet.uuid}\"}]]";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckFirewallRuleConfigFileAction.Result res = action.call();
```

Python SDK

```
CheckFirewallRuleConfigFileAction action = CheckFirewallRuleCon
figFileAction()
action.ruleInfo = "[{\"ruleNumber\":1004,\"action\":\"accept\",\"allowStates
\":\"new,established,invalid,related\",\"protocol\":\"ICMP\",\"tcpFlag\":null,\"
icmpTypeName\":\"echo-reply\",\"sourcePort\":null,\"destPort\":null,\"sourceIp
\":\"192.168.0.41\",\"destIp\":\"192.168.0.50\",\"description\":null,\"state\":\"
disable\", \"ruleSetUuid\": \"${defaultRuleSet.uuid}\"},{\"ruleNumber\":1003
,\"action\":\"reject\",\"allowStates\":\"new,established,invalid,related\", \"
protocol\":\"UDP\", \"tcpFlag\":null,\"icmpTypeName\":null,\"sourcePort\":\"77
\", \"destPort\":\"88\", \"sourceIp\":\"192.168.0.31\", \"destIp\":\"192.168.0.40\", \"
description\":null,\"state\":\"disable\", \"ruleSetUuid\": \"${defaultRuleSet
.uuid}\"},{\"ruleNumber\":1002,\"action\":\"drop\",\"allowStates\":\"new,invalid
,related\", \"protocol\":\"TCP\", \"tcpFlag\":\"SYN,ACK\", \"icmpTypeName\":null
,\"sourcePort\":\"55\", \"destPort\":\"66\", \"sourceIp\":\"192.168.0.21\", \"destIp
\":\"192.168.0.30\", \"description\":null,\"state\":\"disable\", \"ruleSetUuid
\": \"${defaultRuleSet.uuid}\"},{\"ruleNumber\":1001,\"action\":\"accept\", \"
```

```
allowStates":"new,established,invalid,related","protocol":"ALL","
tcpFlag":null,"icmpTypeName":null,"sourcePort":null,"destPort":null,"
sourceIp":"192.168.0.10","destIp":"192.168.0.20","description":null,"
state":"enable", "ruleSetUuid": "${defaultRuleSet.uuid}]]]"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CheckFirewallRuleConfigFileAction.Result res = action.call()
```

5.4.1.6.20 CreateFirewallRuleTemplate

API Request

URLs

```
POST zstack/v1/vpcfirewalls/rules/template
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "action": "accept",
    "protocol": "tcp",
    "name": "rule-template",
    "destPort": "22",
    "sourcePort": "22",
    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "ruleNumber": 1001.0,
    "enableLog": false,
    "state": "disable",
    "description": "example rule des"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"action":"accept","protocol":"tcp","name":"rule-
template","destPort":"22","sourcePort":"22","sourceIp":"192.168.1.2","destIp":"19
reply","ruleNumber":1001.0,"enableLog":false,"state":"disable","description":"exa
```



```
rule des"}}" http://localhost:8080/zstack/v1/vpcfirewalls/rules/
template
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
action	String	body (contained in the params structure)		• drop • reject • accept	4.0.0
protocol	String	body (contained in the params structure)	Optional.		4.0.0
name	String	body (contained in the params structure)	The name of the template.		4.0.0
destPort	String	body (contained in the params structure)	Optional.		4.0.0
sourcePort	String	body (contained in the params structure)	Optional.		4.0.0
sourceIp	String	body (contained in the params structure)	Optional.		4.0.0
destIp	String	body (contained in the params structure)	Optional.		4.0.0
allowStates	String	body (contained in the params structure)	Optional.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
tcpFlag	String	body (contained in the params structure)	Optional.		4.0.0
icmpTypeNa me	String	body (contained in the params structure)	Optional.		4.0.0
ruleNumber	Integer	body (contained in the params structure)			4.0.0
enableLog	boolean	body (contained in the params structure)	Optional.		4.0.0
state	String	body (contained in the params structure)	Optional.		4.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the template.		4.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the template.		4.0.0
tagUuids	List	body (contained in the params structure)	Optional. The user tags.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "action": "accept",
    "protocol": "TCP",
    "destPort": "22",
    "sourcePort": "22",
    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "ruleNumber": 1001.0,
    "enableLog": false,
    "state": "disable",
    "isDefault": false,
    "description": "example rule des"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventory	VpcFirewallRuleTemplateInventory	See inventory	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The name of the template.	4.0.0
destPort	String		4.0.0
sourcePort	String		4.0.0
sourceIp	String		4.0.0
destIp	String		4.0.0
allowStates	String		4.0.0
tcpFlag	String		4.0.0
icmpTypeName	String		4.0.0
ruleNumber	int		4.0.0
enableLog	boolean		4.0.0
isDefault	boolean		4.0.0
description	String	The detailed description of the template.	4.0.0
createDate	Timestamp	The time when the template was created.	4.0.0
lastOpDate	Timestamp	The time when the template was last modified.	4.0.0
accountUuid	String	The account UUID.	4.0.0

Name	Type	Description	Starting Version
uuid	String	The UUID of the template.	4.0.0
action	ActionType	See action	4.0.0
protocol	ProtocolType	See protocol	4.0.0
state	FirewallRuleState	See state	4.0.0

#action

Name	Type	Description	Starting Version
drop	ActionType		4.0.0
reject	ActionType		4.0.0
accept	ActionType		4.0.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		4.0.0
all	ProtocolType		4.0.0
ah	ProtocolType		4.0.0
ax.25	ProtocolType		4.0.0
dccp	ProtocolType		4.0.0
ddp	ProtocolType		4.0.0
egp	ProtocolType		4.0.0
eigrp	ProtocolType		4.0.0
encap	ProtocolType		4.0.0
esp	ProtocolType		4.0.0
etherip	ProtocolType		4.0.0
fc	ProtocolType		4.0.0
ggp	ProtocolType		4.0.0
gre	ProtocolType		4.0.0
hip	ProtocolType		4.0.0
hmp	ProtocolType		4.0.0

Name	Type	Description	Starting Version
icmp	ProtocolType		4.0.0
ipdr-cmtp	ProtocolType		4.0.0
idpr	ProtocolType		4.0.0
igmp	ProtocolType		4.0.0
igp	ProtocolType		4.0.0
ip	ProtocolType		4.0.0
ipcomp	ProtocolType		4.0.0
ipencap	ProtocolType		4.0.0
ipip	ProtocolType		4.0.0
isis	ProtocolType		4.0.0
iso-tp4	ProtocolType		4.0.0
l2tp	ProtocolType		4.0.0
manet	ProtocolType		4.0.0
pls-in-ip	ProtocolType		4.0.0
ospf	ProtocolType		4.0.0
pim	ProtocolType		4.0.0
pup	ProtocolType		4.0.0
rdp	ProtocolType		4.0.0
rohc	ProtocolType		4.0.0
rsfp	ProtocolType		4.0.0
rsvp	ProtocolType		4.0.0
sctp	ProtocolType		4.0.0
skip	ProtocolType		4.0.0
st	ProtocolType		4.0.0
tcp	ProtocolType		4.0.0
udp	ProtocolType		4.0.0
udplite	ProtocolType		4.0.0
vmtp	ProtocolType		4.0.0
vrrp	ProtocolType		4.0.0

Name	Type	Description	Starting Version
wesp	ProtocolType		4.0.0
xns-idp	ProtocolType		4.0.0
xtp	ProtocolType		4.0.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		4.0.0
enable	FirewallRuleState		4.0.0

SDK Sample

Java SDK

```
CreateFirewallRuleTemplateAction action = new CreateFirewallRuleTemplateAction();
action.action = "accept";
action.protocol = "tcp";
action.name = "rule-template";
action.destPort = "22";
action.sourcePort = "22";
action.sourceIp = "192.168.1.2";
action.destIp = "192.168.1.1";
action.allowStates = "invalid,new";
action.tcpFlag = "SYN";
action.icmpTypeName = "echo-reply";
action.ruleNumber = 1001.0;
action.enableLog = false;
action.state = "disable";
action.description = "example rule des";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateFirewallRuleTemplateAction.Result res = action.call();
```

Python SDK

```
CreateFirewallRuleTemplateAction action = CreateFirewallRuleTemplateAction()
action.action = "accept"
action.protocol = "tcp"
action.name = "rule-template"
action.destPort = "22"
action.sourcePort = "22"
action.sourceIp = "192.168.1.2"
action.destIp = "192.168.1.1"
action.allowStates = "invalid,new"
action.tcpFlag = "SYN"
action.icmpTypeName = "echo-reply"
action.ruleNumber = 1001.0
action.enableLog = false
action.state = "disable"
action.description = "example rule des"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateFirewallRuleTemplateAction.Result res = action.call()
```

5.4.1.6.21 DeleteFirewallRuleTemplate

API Request

URLs

```
DELETE zstack/v1/vpcfirewalls/ipset/templates/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vpcfirewalls/rules/
templates/8de197dab6af3e30b7131bc6d50f935d?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the rule template.		4.0.0
deleteMode	String	body	Optional. The deletion mode.	• Permissive • Enforcing	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```



```
}
```

SDK Sample

Java SDK

```
DeleteFirewallRuleTemplateAction action = new DeleteFirewallRuleTemplateAction();
action.uuid = "8de197dab6af3e30b7131bc6d50f935d";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteFirewallRuleTemplateAction.Result res = action.call();
```

Python SDK

```
DeleteFirewallRuleTemplateAction action = DeleteFirewallRuleTemplateAction()
action.uuid = "8de197dab6af3e30b7131bc6d50f935d"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteFirewallRuleTemplateAction.Result res = action.call()
```

5.4.1.6.22 UpdateFirewallRuleTemplate

API Request

URLs

```
PUT zstack/v1/vpcfirewalls/rules/template/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateFirewallRuleTemplate": {
    "name": "rule-template-name",
    "action": "accept",
    "protocol": "tcp",
    "destPort": "22",
    "sourcePort": "22",
    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "ruleNumber": 1001.0,
    "enableLog": false,
    "state": "disable",
    "description": "example rule des"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateFirewallRuleTemplate":{"name":"rule-template-name","action":"accept","protocol":"tcp","destPort":"22","sourcePort":"22","sourceReply","ruleNumber":1001.0,"enableLog":false,"state":"disable","description":"example rule des"}}' http://localhost:8080/zstack/v1/vpcfirewalls/rules/template/0e85a35457763de9bc0a4d19d15e4630/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the template.		4.0.0
name	String	body (contained in the updateFirewallRuleTemplate structure)	Optional. The name of the rule template.		4.0.0
action	String	body (contained in the updateFirewallRuleTemplate structure)		- drop - reject - accept	4.0.0
protocol	String	body (contained in the updateFirewallRuleTemplate structure)	Optional.		4.0.0
destPort	String	body (contained in the updateFire	Optional.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		wallRuleTemplate structure)			
sourcePort	String	body (contained in the updateFirewallRuleTemplate structure)	Optional.		4.0.0
sourceIp	String	body (contained in the updateFirewallRuleTemplate structure)	Optional.		4.0.0
destIp	String	body (contained in the updateFirewallRuleTemplate structure)	Optional.		4.0.0
allowStates	String	body (contained in the updateFirewallRuleTemplate structure)	Optional.		4.0.0
tcpFlag	String	body (contained in the updateFirewallRuleTemplate structure)	Optional.		4.0.0
icmpTypeName	String	body (contained in the updateFirewallRuleTemplate structure)	Optional.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		mplate structure)			
ruleNumber	Integer	body (contained in the updateFire wallRuleTe mplate structure)			4.0.0
enableLog	boolean	body (contained in the updateFire wallRuleTe mplate structure)	Optional.		4.0.0
state	String	body (contained in the updateFire wallRuleTe mplate structure)	Optional.		4.0.0
description	String	body (contained in the updateFire wallRuleTe mplate structure)	Optional. The detailed description of the template.		4.0.0
resourceUuid	String	body (contained in the updateFire wallRuleTe mplate structure)	Optional. The UUID of the template.		4.0.0
tagUuids	List	body (contained in the updateFire wallRuleTe mplate structure)	Optional. The tag tags.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "action": "accept",
    "protocol": "TCP",
    "destPort": "22",
    "sourcePort": "22",
    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "ruleNumber": 1001.0,
    "enableLog": false,
    "state": "disable",
    "isDefault": false,
    "description": "example rule des"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventory	VpcFirewallRuleTemplateInventory	See inventory	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	4.0.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The name of the template.	4.0.0
destPort	String		4.0.0
sourcePort	String		4.0.0
sourceIp	String		4.0.0
destIp	String		4.0.0
allowStates	String		4.0.0
tcpFlag	String		4.0.0
icmpTypeName	String		4.0.0
ruleNumber	int		4.0.0
enableLog	boolean		4.0.0
isDefault	boolean		4.0.0
description	String	The detailed description of the template.	4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the template was created.	4.0.0
lastOpDate	Timestamp	The time when the template was last modified.	4.0.0
accountUuid	String	The account UUID.	4.0.0
uuid	String	The UUID of the template.	4.0.0
action	ActionType	See action	4.0.0
protocol	ProtocolType	See protocol	4.0.0
state	FirewallRuleState	See state	4.0.0

#action

Name	Type	Description	Starting Version
drop	ActionType		4.0.0
reject	ActionType		4.0.0
accept	ActionType		4.0.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		4.0.0
all	ProtocolType		4.0.0
ah	ProtocolType		4.0.0
ax.25	ProtocolType		4.0.0
dccp	ProtocolType		4.0.0
ddp	ProtocolType		4.0.0
egp	ProtocolType		4.0.0
eigrp	ProtocolType		4.0.0
encap	ProtocolType		4.0.0
esp	ProtocolType		4.0.0
etherip	ProtocolType		4.0.0

Name	Type	Description	Starting Version
fc	ProtocolType		4.0.0
ggp	ProtocolType		4.0.0
gre	ProtocolType		4.0.0
hip	ProtocolType		4.0.0
hmp	ProtocolType		4.0.0
icmp	ProtocolType		4.0.0
ipdr-cmtp	ProtocolType		4.0.0
idpr	ProtocolType		4.0.0
igmp	ProtocolType		4.0.0
igp	ProtocolType		4.0.0
ip	ProtocolType		4.0.0
ipcomp	ProtocolType		4.0.0
ipencap	ProtocolType		4.0.0
ipip	ProtocolType		4.0.0
isis	ProtocolType		4.0.0
iso-tp4	ProtocolType		4.0.0
l2tp	ProtocolType		4.0.0
manet	ProtocolType		4.0.0
pls-in-ip	ProtocolType		4.0.0
ospf	ProtocolType		4.0.0
pim	ProtocolType		4.0.0
pup	ProtocolType		4.0.0
rdp	ProtocolType		4.0.0
rohc	ProtocolType		4.0.0
rsfp	ProtocolType		4.0.0
rsvp	ProtocolType		4.0.0
sctp	ProtocolType		4.0.0
skip	ProtocolType		4.0.0
st	ProtocolType		4.0.0

Name	Type	Description	Starting Version
tcp	ProtocolType		4.0.0
udp	ProtocolType		4.0.0
udplite	ProtocolType		4.0.0
vmtp	ProtocolType		4.0.0
vrrp	ProtocolType		4.0.0
wesp	ProtocolType		4.0.0
xns-idp	ProtocolType		4.0.0
xtp	ProtocolType		4.0.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		4.0.0
enable	FirewallRuleState		4.0.0

SDK Sample

Java SDK

```
UpdateFirewallRuleTemplateAction action = new UpdateFirewallRuleTemplateAction();
action.uuid = "0e85a35457763de9bc0a4d19d15e4630";
action.name = "rule-template-name";
action.action = "accept";
action.protocol = "tcp";
action.destPort = "22";
action.sourcePort = "22";
action.sourceIp = "192.168.1.2";
action.destIp = "192.168.1.1";
action.allowStates = "invalid,new";
action.tcpFlag = "SYN";
action.icmpTypeName = "echo-reply";
action.ruleNumber = 1001.0;
action.enableLog = false;
action.state = "disable";
action.description = "example rule des";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateFirewallRuleTemplateAction.Result res = action.call();
```

Python SDK

```
UpdateFirewallRuleTemplateAction action = UpdateFirewallRuleTemplateAction()
action.uuid = "0e85a35457763de9bc0a4d19d15e4630"
action.name = "rule-template-name"
action.action = "accept"
```

```

action.protocol = "tcp"
action.destPort = "22"
action.sourcePort = "22"
action.sourceIp = "192.168.1.2"
action.destIp = "192.168.1.1"
action.allowStates = "invalid,new"
action.tcpFlag = "SYN"
action.icmpTypeName = "echo-reply"
action.ruleNumber = 1001.0
action.enableLog = false
action.state = "disable"
action.description = "example rule des"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateFirewallRuleTemplateAction.Result res = action.call()

```

5.4.1.6.23 QueryFirewallRuleTemplate

API Request

URLs

```

GET zstack/v1/vpcfirewalls/rules/templates
GET zstack/v1/vpcfirewalls/rules/templates/{uuid}

```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/rules/templates

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/rules/templates/
  uuid}

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryFirewallRuleTemplate**, and pressing the **Tab** key.

API Response

Sample Response:

```

{
  "inventories": [
    {
      "action": "accept",
      "protocol": "TCP",
      "destPort": "22",
      "sourcePort": "22",

```

```

    "sourceIp": "192.168.1.2",
    "destIp": "192.168.1.1",
    "allowStates": "invalid,new",
    "tcpFlag": "SYN",
    "icmpTypeName": "echo-reply",
    "ruleNumber": 1001.0,
    "enableLog": false,
    "state": "disable",
    "isDefault": false,
    "description": "example rule des"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventory	List	See inventories	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.0.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
name	String	The name of the template.	4.0.0
destPort	String		4.0.0
sourcePort	String		4.0.0
sourceIp	String		4.0.0
destIp	String		4.0.0
allowStates	String		4.0.0
tcpFlag	String		4.0.0
icmpTypeName	String		4.0.0
ruleNumber	int		4.0.0
enableLog	boolean		4.0.0
isDefault	boolean		4.0.0
description	String	The detailed description of the template.	4.0.0
createDate	Timestamp	The time when the template was created.	4.0.0
lastOpDate	Timestamp	The time when the rule template was last modified.	4.0.0
accountUuid	String	The account UUID.	4.0.0
uuid	String	The UUID of the template.	4.0.0
action	ActionType	See action	4.0.0
protocol	ProtocolType	See protocol	4.0.0
state	FirewallRuleState	See state	4.0.0

#action

Name	Type	Description	Starting Version
drop	ActionType		4.0.0
reject	ActionType		4.0.0
accept	ActionType		4.0.0

#protocol

Name	Type	Description	Starting Version
tcp_udp	ProtocolType		4.0.0
all	ProtocolType		4.0.0
ah	ProtocolType		4.0.0
ax.25	ProtocolType		4.0.0
dccp	ProtocolType		4.0.0
ddp	ProtocolType		4.0.0
egp	ProtocolType		4.0.0
eigrp	ProtocolType		4.0.0
encap	ProtocolType		4.0.0
esp	ProtocolType		4.0.0
etherip	ProtocolType		4.0.0
fc	ProtocolType		4.0.0
ggp	ProtocolType		4.0.0
gre	ProtocolType		4.0.0
hip	ProtocolType		4.0.0
hmp	ProtocolType		4.0.0
icmp	ProtocolType		4.0.0
ipdr-cmtp	ProtocolType		4.0.0
idpr	ProtocolType		4.0.0
igmp	ProtocolType		4.0.0
igp	ProtocolType		4.0.0
ip	ProtocolType		4.0.0
ipcomp	ProtocolType		4.0.0

Name	Type	Description	Starting Version
ipencap	ProtocolType		4.0.0
ipip	ProtocolType		4.0.0
isis	ProtocolType		4.0.0
iso-tp4	ProtocolType		4.0.0
l2tp	ProtocolType		4.0.0
manet	ProtocolType		4.0.0
pls-in-ip	ProtocolType		4.0.0
ospf	ProtocolType		4.0.0
pim	ProtocolType		4.0.0
pup	ProtocolType		4.0.0
rdp	ProtocolType		4.0.0
rohc	ProtocolType		4.0.0
rsfp	ProtocolType		4.0.0
rsvp	ProtocolType		4.0.0
sctp	ProtocolType		4.0.0
skip	ProtocolType		4.0.0
st	ProtocolType		4.0.0
tcp	ProtocolType		4.0.0
udp	ProtocolType		4.0.0
udplite	ProtocolType		4.0.0
vmtp	ProtocolType		4.0.0
vrrp	ProtocolType		4.0.0
wesp	ProtocolType		4.0.0
xns-idp	ProtocolType		4.0.0
xtp	ProtocolType		4.0.0

#state

Name	Type	Description	Starting Version
disable	FirewallRuleState		4.0.0

Name	Type	Description	Starting Version
enable	FirewallRuleState		4.0.0

SDK Sample

Java SDK

```
QueryFirewallRuleTemplateAction action = new QueryFirewallRuleTemplateAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryFirewallRuleTemplateAction.Result res = action.call();
```

Python SDK

```
QueryFirewallRuleTemplateAction action = QueryFirewallRuleTemplateAction();
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryFirewallRuleTemplateAction.Result res = action.call()
```

5.4.1.6.24 QueryVpcFirewallVRouterRef

API Request

URLs

```
GET zstack/v1/vpcfirewalls/vrouters/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/vrouters/refs?
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVpcFirewallVRouterRef**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
```

```

    "id": 1.0,
    "vpcFirewallUuid": "cd7ab20e4768316c86230f2d982ae5a5",
    "vRouterUuid": "7013faeb3b4736d1800749b1e910a845",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
id	long		3.6.0
vpcFirewallUuid	String		3.6.0
vRouterUuid	String		3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
QueryVpcFirewallVRouterRefAction action = new QueryVpcFirewallVRouterRefAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVpcFirewallVRouterRefAction.Result res = action.call();
```

Python SDK

```
QueryVpcFirewallVRouterRefAction action = QueryVpcFirewallVRouterRefAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVpcFirewallVRouterRefAction.Result res = action.call()
```

5.4.1.6.25 ApplyRuleSetChanges

API Request

URLs

```
PUT zstack/v1/vpcfirewalls/ruleSets/apply/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "applyRuleSetChanges": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"applyRuleSetChanges":{}}' http://localhost:8080/zstack/
v1/vpcfirewalls/ruleSets/apply/e78b0b5ebe1c33159b0faa2d88a41b21/
actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the action.		4.0.0
systemTags	List	body	Optional.		4.0.0
userTags	List	body	Optional.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "name",
    "actionType": "drop",
    "description": "example-des",
    "enableDefaultLog": false,
    "isDefault": false,
    "isApplied": true
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventory	VpcFirewallRuleSetInventory	See inventory	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the VPC firewall ruleset.	4.0.0
name	String	The name of the VPC firewall ruleset.	4.0.0
description	String	The detailed description of the VPC firewall ruleset.	4.0.0
isDefault	boolean		4.0.0
isApplied	boolean		4.0.0
createDate	Timestamp	The time when the VPC firewall ruleset was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the VPC firewall ruleset was last modified.	4.0.0
actionType	ActionType	See actionType	4.0.0

#actionType

Name	Type	Description	Starting Version
drop	ActionType		4.0.0
reject	ActionType		4.0.0
accept	ActionType		4.0.0

SDK Sample

Java SDK

```
ApplyRuleSetChangesAction action = new ApplyRuleSetChangesAction();
action.uuid = "e78b0b5ebe1c33159b0faa2d88a41b21";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ApplyRuleSetChangesAction.Result res = action.call();
```

Python SDK

```
ApplyRuleSetChangesAction action = ApplyRuleSetChangesAction()
action.uuid = "e78b0b5ebe1c33159b0faa2d88a41b21"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ApplyRuleSetChangesAction.Result res = action.call()
```

5.4.1.6.26 CreateFirewallIpSetTemplate

API Request

URLs

```
POST zstack/v1/vpcfirewalls/ipset/templates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "ipset-template",
    "sourceValue": "192.168.1.2",
```

```

    "destValue": "192.168.1.1,10.0.0.1/24",
    "type": "ip"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"ipset-template","sourceValue":"192.168.1.2","destValue":"192.168.1.1,10.0.0.1/24","type":
http://localhost:8080/zstack/v1/vpcfirewalls/ipset/templates

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body (contained in the params structure)	The name of the template.		4.0.0
sourceValue	String	body (contained in the params structure)	Optional.		4.0.0
destValue	String	body (contained in the params structure)	Optional.		4.0.0
type	IpSetType	body (contained in the params structure)		- ip - port	4.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the template.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The user tags.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "ipset-template",
    "sourceValue": "192.168.1.2",
    "destValue": "192.168.1.1,10.0.0.1/24",
    "type": "ip"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventory	VpcFirewallIpSetTemplateInventory	See inventory	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The name of the template.	4.0.0
sourceValue	String		4.0.0
destValue	String		4.0.0
createDate	Timestamp	The time when the template was created.	4.0.0
lastOpDate	Timestamp	The time when the template was last modified.	4.0.0
accountUuid	String	The account UUID.	4.0.0
uuid	String	The template UUID.	4.0.0
type	IpSetType	See type	4.0.0

#type

Name	Type	Description	Starting Version
ip	IpSetType		4.0.0
port	IpSetType		4.0.0

SDK Sample

Java SDK

```
CreateFirewallIpSetTemplateAction action = new CreateFirewallIpSetTemplateAction();
action.name = "ipset-template";
action.sourceValue = "192.168.1.2";
action.destValue = "192.168.1.1,10.0.0.1/24";
action.type = "ip";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateFirewallIpSetTemplateAction.Result res = action.call();
```

Python SDK

```
CreateFirewallIpSetTemplateAction action = CreateFirewallIpSetTemplateAction()
action.name = "ipset-template"
action.sourceValue = "192.168.1.2"
action.destValue = "192.168.1.1,10.0.0.1/24"
action.type = "ip"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateFirewallIpSetTemplateAction.Result res = action.call()
```

5.4.1.6.27 DeleteFirewallIpSetTemplate

API Request

URLs

```
DELETE /v1/vpcfirewalls/ipset/templates/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vpcfirewalls/ipset/templates/e84fbe6b5a9c31a1b4b83cfde4028893?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the template.		4.0.0
deleteMode	String	body	Optional. The deletion mode.	Permissive	4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
				Enforcing	
Optional. The system tags.	List	body	Optional. The system tags.		4.0.0
Optional. The user tags.	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteFirewallIpSetTemplateAction action = new DeleteFirewallIpSetTemplateAction();
action.uuid = "e84fbe6b5a9c31a1b4b83cfde4028893";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteFirewallIpSetTemplateAction.Result res = action.call();
```

Python SDK

```
DeleteFirewallIpSetTemplateAction action = DeleteFirewallIpSetTemplateAction()
action.uuid = "e84fbe6b5a9c31a1b4b83cfde4028893"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteFirewallIpSetTemplateAction.Result res = action.call()
```

5.4.1.6.28 UpdateFirewallIpSetTemplate

API Request

URLs

```
PUT zstack/v1/vpcfirewalls/ipset/templates/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateFirewallIpSetTemplate": {
    "name": "ipset-template",
    "sourceValue": "192.168.1.2",
    "destValue": "192.168.1.1,10.0.0.1/24",
    "type": "ip"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateFirewallIpSetTemplate":{"name":"ipset-template","sourceValue":"192.168.1.2","destValue":"192.168.1.1,10.0.0.1/24","type":"ip"},"systemTags":[],"userTags":[]}' \
http://localhost:8080/zstack/v1/vpcfirewalls/ipset/templates/c7df801f021e334f9d548eac2eb2cd47/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the template.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body (contained in the updateFirewallIpSetTemplate structure)	Optional. The name of the template.		4.0.0
sourceValue	String	body (contained in the updateFirewallIpSetTemplate structure)	Optional.		4.0.0
destValue	String	body (contained in the updateFirewallIpSetTemplate structure)	Optional.		4.0.0
type	IpSetType	body (contained in the updateFirewallIpSetTemplate structure)		- ip - port	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "ipset-template",
```

```

    "sourceValue": "192.168.1.2",
    "destValue": "192.168.1.1,10.0.0.1/24",
    "type": "ip"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventory	VpcFirewallRuleTemplateInventory	See inventory	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The name of the template.	4.0.0
sourceValue	String		4.0.0
destValue	String		4.0.0
createDate	Timestamp	The time when the template was created.	4.0.0
lastOpDate	Timestamp	The time when the template was last modified.	4.0.0
accountUuid	String	The account UUID.	4.0.0
uuid	String	The UUID of the template.	4.0.0
type	IpSetType	See type	4.0.0

#type

Name	Type	Description	Starting Version
ip	IpSetType		4.0.0
port	IpSetType		4.0.0

SDK Sample

Java SDK

```
UpdateFirewallIpSetTemplateAction action = new UpdateFirewallIpSetTemplateAction();
action.uuid = "c7df801f021e334f9d548eac2eb2cd47";
action.name = "ipset-template";
action.sourceValue = "192.168.1.2";
action.destValue = "192.168.1.1,10.0.0.1/24";
action.type = "ip";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateFirewallIpSetTemplateAction.Result res = action.call();
```

Python SDK

```
UpdateFirewallIpSetTemplateAction action = UpdateFirewallIpSetTemplateAction()
action.uuid = "c7df801f021e334f9d548eac2eb2cd47"
action.name = "ipset-template"
action.sourceValue = "192.168.1.2"
action.destValue = "192.168.1.1,10.0.0.1/24"
action.type = "ip"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateFirewallIpSetTemplateAction.Result res = action.call()
```

5.4.1.6.29 QueryFirewallIpSetTemplate

API Request

URLs

```
GET zstack/v1/vpcfirewalls/ipset/templates
GET zstack/v1/vpcfirewalls/ipset/templates/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/ipset/templates
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vpcfirewalls/ipset/templates/
fe6b68e5315035d88b02dd423de0342c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryFirewallIpSetTemplate**, and pressing the **Tab** key.

API Response

Sample Response:

```
{
  "inventories": [
    {
      "name": "ipset-template",
      "sourceValue": "192.168.1.2",
      "destValue": "192.168.1.1,10.0.0.1/24",
      "type": "ip"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.0.0

Name	Type	Description	Starting Version
		more information, see error	
inventory	VpcFirewallIpSetTemplateInventory	See inventories	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventories

Name	Type	Description	Starting Version
name	long	The name of the template.	4.0.0
sourceValue	String		4.0.0
destValue	String		4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the template was created.	4.0.0
lastOpDate	Timestamp	The time when the template was last modified.	4.0.0
accountUuid	String	The account UUID	4.0.0
uuid	String	The template UUID.	4.0.0
type	IpSetType	See type	4.0.0

#type

Name	Type	Description	Starting Version
ip	IpSetType		4.0.0
port	IpSetType		4.0.0

SDK Sample

Java SDK

```
QueryFirewallIpSetTemplateAction action = new QueryFirewallIpSetTe
mplateAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryFirewallIpSetTemplateAction.Result res = action.call();
```

Python SDK

```
QueryFirewallIpSetTemplateAction action = QueryFirewallIpSetTe
mplateAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
QueryFirewallIpSetTemplateAction.Result res = action.call()
```

5.4.1.7 Security Group Operations

5.4.1.7.1 CreateSecurityGroup

API Request

URLs

```
POST zstack/v1/security-groups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "sp",
    "description": "test create security group"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"sp","description":"test create security group"}}' \
http://localhost:8080/zstack/v1/security-groups
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
ipVersion	Integer	body (contained in the params structure)	Optional. The IP version.	• 4 • 6	3.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the system will not allocate randomly a UUID to the resource.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7bb070cdebf44fd8af354f25344d758b",
    "name": "web",
    "description": "for test",
    "state": "Enabled",
    "createDate": "Jun 7, 2017 9:21:20 PM",
    "lastOpDate": "Jun 7, 2017 9:21:20 PM",
    "internalId": 0.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	
inventory	SecurityGroupInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6

Name	Type	Description	Starting Version
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedL3NetworkUuids	Set		0.6
rules	List	See rules .	0.6

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
type	String	The traffic type.	0.6
ipVersion	Integer	The IP version.	3.1.0
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
endPort	Integer	- If the protocol is TCP or UDP, this parameter is the end port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
protocol	String	The traffic protocol type.	0.6

Name	Type	Description	Starting Version
state	String	The rule state, which is not implemented in the current version.	0.6
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is allowed to access VM NICs. - If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	0.6
remoteSecurityGroupUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
CreateSecurityGroupAction action = new CreateSecurityGroupAction();
action.name = "sp";
action.description = "test create security group";
action.sessionId = "b5032c14210c4668a3a2bcd341d80bbf";
CreateSecurityGroupAction.Result res = action.call();
```

Python SDK

```
CreateSecurityGroupAction action = CreateSecurityGroupAction()
action.name = "sp"
action.description = "test create security group"
```

```
action.sessionId = "e34f8139af4548d5ade539ca2a5d7983"
CreateSecurityGroupAction.Result res = action.call()
```

5.4.1.7.2 DeleteSecurityGroup

API Request

URLs

```
DELETE zstack/v1/security-groups/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 6674ae438b8646d3b4a99a7fe7a48719" \
-X DELETE http://localhost:8080/zstack/v1/security-
groups/6791f54e4fb147d1b26030723efe03bd?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode. Options: Permissive Enforcing. Default mode: Permissive. Permissive: If an error occurs, or if the delete operation is refused, ZStack Cloud will stop the delete operation.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			In this mode, an error code that contains the failure reason will be returned. Enforcing: ZStack Cloud will ignore all errors and permissions to delete directly the resource. In this mode, the delete operation will always succeed.		
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteSecurityGroupAction action = new DeleteSecurityGroupAction();
action.uuid = "86efff16586b4d82bfea66deba85cc50";
action.deleteMode = "Permissive";
action.sessionId = "079653952584401b997df37fd7044433";
DeleteSecurityGroupAction.Result res = action.call();
```

Python SDK

```
DeleteSecurityGroupAction action = DeleteSecurityGroupAction()
action.uuid = "59098134c4214c79a48ced0ed7952ecd"
action.deleteMode = "Permissive"
action.sessionId = "2fb58330c68d46f6aa700740d52b02c0"
DeleteSecurityGroupAction.Result res = action.call()
```

5.4.1.7.3 QuerySecurityGroup

API Request

URLs

```
GET zstack/v1/security-groups
GET zstack/v1/security-groups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 1f3fcf6a885148b69702e52d22de9606" \
-X GET http://localhost:8080/zstack/v1/security-groups?
q=name=web&q=state=Enabled
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth a0c4c995a9e34c639cc72732bcd7bd2f" \
-X GET http://localhost:8080/zstack/v1/security-groups/
af0d90237c084afaa16f997847579152
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySecurityGroup`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "6f757e65fed243babeac0be896e77caf",
      "name": "web",
      "description": "for test",
      "state": "Enabled",
      "createDate": "Jun 7, 2017 9:20:34 PM",
      "lastOpDate": "Jun 7, 2017 9:20:34 PM",
      "internalId": 0.0
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedL3NetworkUuids	Set		0.6
rules	List	See rules .	0.6

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
type	String	The traffic type.	0.6
ipVersion	Integer	The IP version.	3.1.0
startPort	Integer	If the protocol is TCP or UDP, this parameter is the start port of the port range.	0.6

Name	Type	Description	Starting Version
		If the protocol is ICMP, this parameter is the ICMP type.	
endPort	Integer	- If the protocol is TCP or UDP, this parameter is the end port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
protocol	String	The traffic protocol type.	0.6
state	String	The rule state, which is not implemented in the current version.	0.6
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is allowed to access VM NICs. - If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	0.6

Name	Type	Description	Starting Version
remoteSecurityGroupUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QuerySecurityGroupAction action = new QuerySecurityGroupAction();
action.conditions = asList("name=web", "state=Enabled");
action.sessionId = "604cf540e620468fa3fad7098196bb96";
QuerySecurityGroupAction.Result res = action.call();
```

Python SDK

```
QuerySecurityGroupAction action = QuerySecurityGroupAction()
action.conditions = ["name=web", "state=Enabled"]
action.sessionId = "55a3657d35f14ee4b41401bd7ada15a7"
QuerySecurityGroupAction.Result res = action.call()
```

5.4.1.7.4 UpdateSecurityGroup

API Request

URLs

```
PUT zstack/v1/security-groups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSecurityGroup": {
    "name": "new sg",
    "description": "for test update"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSecurityGroup":{"name":"new sg","description":"for test update"}}' \
http://localhost:8080/zstack/v1/security-groups/549bb03c235a3fa8aa18fb79539d4862/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateSecurityGroup structure)	Optional. The resource name.		0.6
description	String	body (contained in the updateSecurityGroup structure)	Optional. The detailed description of the resource.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "def8dff9ec5046e39f57193f488d716a",
    "name": "web",
    "description": "for test",
    "state": "Enabled",
    "createDate": "Jun 7, 2017 9:20:15 PM",
```

```
"lastOpDate": "Jun 7, 2017 9:20:15 PM",
"internalId": 0.0
}
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SecurityGroupInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedL3NetworkUuids	Set		0.6
rules	List	See rules .	0.6

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
type	String	The traffic type.	0.6
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
endPort	Integer	- If the protocol is TCP or UDP, this parameter is the end port of the port range. - If the protocol is ICMP, this	0.6

Name	Type	Description	Starting Version
		parameter is the ICMP type.	
protocol	String	The traffic protocol type.	0.6
state	String	The rule state, which is not implemented in the current version.	0.6
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is allowed to access VM NICs. - If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateSecurityGroupAction action = new UpdateSecurityGroupAction();
action.uuid = "b60e66856f6c4f7ca16854cfd170fb99";
action.name = "new sg";
action.description = "for test update";
action.sessionId = "8c23751364b746628177641202ff0999";
```



```
UpdateSecurityGroupAction.Result res = action.call();
```

Python SDK

```
UpdateSecurityGroupAction action = UpdateSecurityGroupAction()
action.uuid = "f6fc05d6ba854530bd8141733d6db4ad"
action.name = "new sg"
action.description = "for test update"
action.sessionId = "f75e99d861ca4660925d72313692d663"
UpdateSecurityGroupAction.Result res = action.call()
```

5.4.1.7.5 ChangeSecurityGroupState

API Request

URLs

```
PUT zstack/v1/security-groups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeSecurityGroupState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeSecurityGroupState":{"stateEvent":"disable"}}' \
http://localhost:8080/zstack/v1/security-groups/85a1d77188d836eab47b34e7129fb5fb/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
stateEvent	String	body (contained in the changeSecurityGroupState structure)	The security group state.	enabledisable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "eebb81d825214555a61567f8811fca15",
    "name": "web",
    "description": "for test",
    "state": "Enabled",
    "createDate": "Jun 7, 2017 9:20:16 PM",
    "lastOpDate": "Jun 7, 2017 9:20:16 PM",
    "internalId": 0.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SecurityGroupInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedL3NetworkUuids	Set		0.6
rules	List	See rules .	0.6

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
type	String	The traffic type.	0.6
ipVersion	Integer	The IP version.	3.1.0
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
endPort	Integer	- If the protocol is TCP or UDP, this parameter is the end port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
protocol	String	The traffic protocol type.	0.6
state	String	The rule state, which is not implemented in the current version.	0.6
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the	0.6

Name	Type	Description	Starting Version
		allowed CIDR is a source CIDR that is allowed to access VM NICs. If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	
remoteSecurityGroupUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
ChangeSecurityGroupStateAction action = new ChangeSecurityGroupStateAction();
action.uuid = "9389a923cd8c4cacb12e57b979fa1e5f";
action.stateEvent = "disable";
action.sessionId = "772deba87e7847459e5b1f428531bee2";
ChangeSecurityGroupStateAction.Result res = action.call();
```

Python SDK

```
ChangeSecurityGroupStateAction action = ChangeSecurityGroupStateAction()
action.uuid = "1ecf0093245b4a6a948d5d09983f0193"
action.stateEvent = "disable"
action.sessionId = "eb76404af2f140f993ae68bb22a80781"
```

```
ChangeSecurityGroupStateAction.Result res = action.call()
```

5.4.1.7.6 AttachSecurityGroupToL3Network

API Request

URLs

```
POST zstack/v1/security-groups/{securityGroupUuid}/l3-networks/{l3NetworkUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/security-groups/0551a95211783295879d083216cb493b/l3-networks/35aa9f6e9a2b3f849d1631ba89d0b27d
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
securityGroupUuid	String	url	The security group UUID.		0.6
l3NetworkUuid	String	url	The L3 network UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5870eab620d2487d8d0320eabe185718",
    "name": "web",
    "description": "for test",
    "state": "Enabled",
    "createDate": "Jun 7, 2017 9:20:28 PM",
    "lastOpDate": "Jun 7, 2017 9:20:28 PM",
    "internalId": 0
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SecurityGroupInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedL3NetworkUuids	Set		0.6
rules	List	See rules .	0.6

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6

Name	Type	Description	Starting Version
type	String	The traffic type.	0.6
ipVersion	Integer	The IP version.	3.1.0
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
endPort	Integer	- If the protocol is TCP or UDP, this parameter is the end port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
protocol	String	The traffic protocol type.	0.6
state	String	The rule state, which is not implemented in the current version.	0.6
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is allowed to access VM NICs.	0.6

Name	Type	Description	Starting Version
		If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	
remoteSecurityGroupUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
AttachSecurityGroupToL3NetworkAction action = new AttachSecurityGroupToL3NetworkAction();
action.securityGroupUuid = "eef2d772f4e94997816fdf8512a8233a";
action.l3NetworkUuid = "6761570f790c400596839da61767f890";
action.sessionId = "efb745c9a7204e9a941608059f3c3a10";
AttachSecurityGroupToL3NetworkAction.Result res = action.call();
```

Python SDK

```
AttachSecurityGroupToL3NetworkAction action = AttachSecurityGroupToL3NetworkAction()
action.securityGroupUuid = "ae9aebcc28d1490293382c661d123c16"
action.l3NetworkUuid = "cd2fdc4303e34ead806a492d18d4b5fa"
action.sessionId = "9938bf24e1b24c39ab4dc3edc0aeb38d"
```

```
AttachSecurityGroupToL3NetworkAction.Result res = action.call()
```

5.4.1.7.7 DetachSecurityGroupFromL3Network

API Request

URLs

```
DELETE/v1/security-groups/{securityGroupUuid}/l3-networks/{l3NetworkU
uid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 6edcc17febe04b9fb77059cf096f2cc5" \
-X DELETE http://localhost:8080/zstack/v1/security-
groups/08d569c03f8343168f2ae80861db92f3/l3-networks/
af8199498a9e4ab1be6d1fea8ec7fbee?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
securityGroupUuid	String	url	The security group UUID.		0.6
l3NetworkUuid	String	url	The L3 network UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "6cf7a5c5d89b4094ad912a555319d4d0",
    "name": "web",
    "description": "for test",
    "state": "Enabled",
    "createDate": "Jun 7, 2017 9:21:06 PM",
    "lastOpDate": "Jun 7, 2017 9:21:06 PM",
    "internalId": 0.0
  }
}
```

```
}
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SecurityGroupInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedL3NetworkUuids	Set		0.6
rules	List	See rules .	0.6

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
type	String	The traffic type.	0.6
ipVersion	Integer	The IP version.	3.1.0
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
endPort	Integer	If the protocol is TCP or UDP, this parameter is the end port of the port range.	0.6

Name	Type	Description	Starting Version
		If the protocol is ICMP, this parameter is the ICMP type.	
protocol	String	The traffic protocol type.	0.6
state	String	The rule state, which is not implemented in the current version.	0.6
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is allowed to access VM NICs. - If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	0.6
remoteSecurityGroupUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
DetachSecurityGroupFromL3NetworkAction action = new DetachSecurityGroupFromL3NetworkAction();
```

```
action.securityGroupUuid = "823d378084fa445c8d180895db4dd8c1";
action.l3NetworkUuid = "cf6dd2bbd5f940d0976e8c2cd2c063c9";
action.sessionId = "915660a10fc74d509d5ef72caf5892bd";
DetachSecurityGroupFromL3NetworkAction.Result res = action.call();
```

Python SDK

```
DetachSecurityGroupFromL3NetworkAction action = DetachSecurityGroupFromL3NetworkAction()
action.securityGroupUuid = "726d6b2f8a674da681f32c66102494df"
action.l3NetworkUuid = "f32da69be7ce4918bb81b8a7ce891177"
action.sessionId = "933ada040fb14b94941997381877bacc"
DetachSecurityGroupFromL3NetworkAction.Result res = action.call()
```

5.4.1.7.8 GetCandidateVmNicForSecurityGroup

API Request

URLs

```
GET zstack/v1/security-groups/{securityGroupUuid}/vm-instances/
candidate-nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth aec584233a724de089d05b8090e5a296" \
-X GET http://localhost:8080/zstack/v1/security-
groups/584e70f6d3504c7a811df5eeba61839c/vm-instances/candidate-nics
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
securityGroupUuid	String	url	The security group UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "80d2eab0354c329b8257e8f9fcd76d43",
      "vmInstanceUuid": "e8af62992ec5343facac7c5fc164ddd0",
      "l3NetworkUuid": "738cc18ef5003a00937c0e17e6c67a2d",
      "ip": "192.168.0.123",
      "mac": "fa:ef:34:5c:6c:00",
      "hypervisorType": "KVM",
      "netmask": "255.255.255.0",
      "gateway": "192.168.0.1",
      "internalName": "eth0",
      "deviceId": 0.0
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6

Name	Type	Description	Starting Version
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
GetCandidateVmNicForSecurityGroupAction action = new GetCandidateVmNicForSecurityGroupAction();
action.securityGroupUuid = "4060760487504ea3b1ad25bcbabacff5";
action.sessionId = "488b3f4cc8ea4868ab0a7874c4d6358e";
GetCandidateVmNicForSecurityGroupAction.Result res = action.call();
```

Python SDK

```
GetCandidateVmNicForSecurityGroupAction action = GetCandidateVmNicForSecurityGroupAction()
action.securityGroupUuid = "c30e353b2fe0408ca3ee09a5495b5fa4"
action.sessionId = "acaa2edf939e47b1a399b413f6b26400"
GetCandidateVmNicForSecurityGroupAction.Result res = action.call()
```

5.4.1.7.9 AddVmNicToSecurityGroup

API Request

URLs

```
POST zstack/v1/security-groups/{securityGroupUuid}/vm-instances/nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
```

```

"params": {
  "vmNicUuids": [
    "8432b2608a8a4f639cc56a8c65ee42ef"
  ],
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"vmNicUuids":
["c37875cec7133f41adbeb336cdd33ef8"]}}' \
http://localhost:8080/zstack/v1/security-groups/
f52566f939f635629a43cd3e27f78dd9/vm-instances/nics

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
securityGroupUuid	String	url	The security group UUID.		0.6
vmNicUuids	List	body (contained in the params structure)	The VM NIC UUID list.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

```
}
}
```

SDK Sample

Java SDK

```
AddVmNicToSecurityGroupAction action = new AddVmNicToSecurityGroupAction();
action.securityGroupUuid = "b651075ffcac475c91d3edaa5e9ade75";
action.vmNicUuids = asList("ff0f6c13311b46ddb186a95c0d18350a");
action.sessionId = "605fca0559284eff95d78e418508ff2f";
AddVmNicToSecurityGroupAction.Result res = action.call();
```

Python SDK

```
AddVmNicToSecurityGroupAction action = AddVmNicToSecurityGroupAction()
action.securityGroupUuid = "2da1519b9b39451e8742aadaa9241952"
action.vmNicUuids = [bda4ceec2917426cb9ee20b3bcb20653]
action.sessionId = "863d503abfbc4334846d67c1eac375f9"
AddVmNicToSecurityGroupAction.Result res = action.call()
```

5.4.1.7.10 DeleteVmNicFromSecurityGroup

API Request

URLs

```
DELETE /v1/security-groups/{securityGroupUuid}/vm-instances/nics?
vmNicUuids={vmNicUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/security-
groups/2c78da48235c3015aa9f9c99e81060b2/vm-instances/nics?
vmNicUuids=9aef4c831b1540e7832332972138d78c&vmNicUuids=c40dd02ddf654031aec2534662
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
securityGroupUuid	String	url	The security group UUID.		0.6
vmNicUuids	List	body	The VM NIC UUID list.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVmNicFromSecurityGroupAction action = new DeleteVmNicFromSecurityGroupAction();
action.securityGroupUuid = "2c78da48235c3015aa9f9c99e81060b2";
action.vmNicUuids = asList("f8e9c3a73e7c399ca148057f8b2897c3", "ae09cd7292913bfe84e467286aaa7a9f");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVmNicFromSecurityGroupAction.Result res = action.call();
```

Python SDK

```
DeleteVmNicFromSecurityGroupAction action = DeleteVmNicFromSecurityGroupAction()
action.securityGroupUuid = "2c78da48235c3015aa9f9c99e81060b2"
action.vmNicUuids = [f8e9c3a73e7c399ca148057f8b2897c3, ae09cd7292913bfe84e467286aaa7a9f]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteVmNicFromSecurityGroupAction.Result res = action.call()
```

5.4.1.7.11 QueryVmNicInSecurityGroup

API Request

URLs

```
GET zstack/v1/security-groups/vm-instances/nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 3f2df305cc614ecb9d0b93480cf84b33" \
-X GET http://localhost:8080/zstack/v1/security-groups/vm-instances/
nics
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVmNicInSecurityGroup`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "9bac6b3729ae4915bc9f4cee67753774",
      "vmNicUuid": "7d0784059df64a11aef748e18b0d5fa7",
      "securityGroupUuid": "d3ace95b1236482896f5d1921638ada5",
      "vmInstanceUuid": "ace37e89d86c4994942f858a67172a0d",
      "createDate": "Jun 7, 2017 9:20:32 PM",
      "lastOpDate": "Jun 7, 2017 9:20:32 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
vmNicUuid	String	The VM NIC UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryVmNicInSecurityGroupAction action = new QueryVmNicInSecurityGroupAction();
action.conditions = asList();
action.sessionId = "fc82274e695143118923150b6008bef2";
QueryVmNicInSecurityGroupAction.Result res = action.call();
```

Python SDK

```
QueryVmNicInSecurityGroupAction action = QueryVmNicInSecurityGroupAction()
action.conditions = []
action.sessionId = "32b2bfd366774b67a51ebdeb374df1cc"
QueryVmNicInSecurityGroupAction.Result res = action.call()
```

5.4.1.7.12 AddSecurityGroupRule

API Request

URLs

```
POST zstack/v1/security-groups/{securityGroupUuid}/rules
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "rules": [
      {
        "type": "Ingress",
        "state": "Enabled",
        "description": "test",
        "remoteSecurityGroupUuid": "7d4337c2b18339ffb6f5d1023fc2ea42",
        "ipVersion": 4,
        "protocol": "TCP",
        "srcIpRange": "10.0.0.1,10.0.0.2-10.0.0.200,10.1.1.0/24",
        "dstIpRange": "10.0.0.1,10.0.0.2-10.0.0.200,10.1.1.0/24",
        "dstPortRange": "1000,1001,1002-1005,1008",
        "action": "ACCEPT"
      }
    ],
    "priority": -1
  },
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X POST -d '{"params":{"rules":
[{"type":"Ingress","state":"Enabled","description":"test","remoteSecurityGroupUuid":
http://localhost:8080/zstack/v1/security-
groups/00fdf47ec62b316a8f17c80d0ee59a01/rules
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
securityGroupUuid	String	url	The security group UUID.		0.6
rules	List	body (contained in the params structure)	The rules in the security group.		0.6
remoteSecurityGroupUuids	List	body (contained in the params structure)	Optional. The security group that the rule takes effect.		2.1
priority	Integer	body (contained in the params structure)	Optional. The priority of security group rule.		4.7.21
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response**Sample Response**

{

```

"inventory": {
  "uuid": "5949aece9cd64d5a939d6dc5e2c1f327",
  "name": "web",
  "description": "for test",
  "state": "Enabled",
  "createDate": "Sep 22, 2017 12:24:11 PM",
  "lastOpDate": "Sep 22, 2017 12:24:11 PM",
  "internalId": 0
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SecurityGroupInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedL3NetworkUuids	Set		0.6
rules	List	See rules .	0.6

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
type	String	The traffic type.	0.6
ipVersion	Integer	The IP version.	3.1.0
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
endPort	Integer	If the protocol is TCP or UDP, this parameter is the	0.6

Name	Type	Description	Starting Version
		end port of the port range. If the protocol is ICMP, this parameter is the ICMP type.	
protocol	String	The traffic protocol type.	0.6
state	String	The rule state, which is not implemented in the current version.	0.6
priority	Integer	The priority of security group rule.	4.7.21
description	String	The description of the security group rule.	4.7.21
srcIpRange	String	The range of source IP.	4.7.21
dstIpRange	String	The range of target IP.	4.7.21
srcPortRange	String	The range of source port, which is not implemented in the current version.	4.7.21
dstPortRange	String	The range of target port.	4.7.21
action	String	The default action of the security group rule.	4.7.21
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is	0.6

Name	Type	Description	Starting Version
		allowed to access VM NICs. If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	
remoteSecurityGroupUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
AddSecurityGroupRuleAction action = new AddSecurityGroupRuleAction();
action.securityGroupUuid = "11a632fb43434d9582a736f538af41a0";
action.rules = asList([type:Ingress, startPort:22.0, endPort:22.0,
protocol:TCP, allowedCidr:0.0.0.0/0]);
action.remoteSecurityGroupUuids = asList("22ee23f9b3924d13a11e
abbe8786f0dc");
action.sessionId = "96d2a0445f4241bd823141c281fb4b3e";
AddSecurityGroupRuleAction.Result res = action.call();
```

Python SDK

```
AddSecurityGroupRuleAction action = AddSecurityGroupRuleAction()
action.securityGroupUuid = "38aa7db9d299456f8c2410a1148bb18c"
action.rules = [[type:Ingress, startPort:22.0, endPort:22.0, protocol:
TCP, allowedCidr:0.0.0.0/0]]
action.remoteSecurityGroupUuids = [b4e32c0abbfb428798b48ea2cbe8103d]
action.sessionId = "3435114ce8294deea437496ccf78a1d8"
```

```
AddSecurityGroupRuleAction.Result res = action.call()
```

5.4.1.7.13 DeleteSecurityGroupRule

API Request

URLs

```
DELETE zstack/v1/security-groups/rules?ruleUuids={ruleUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 56ec3e843f8e48d1b3cf9e848885dc81" \
-X DELETE http://localhost:8080/zstack/v1/security-groups/rules?
ruleUuids=1f0becde585e39d280acbd6c5b21bd39
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ruleUuids	List	body	The UUID list of the security group rule.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "06abc64deb0b4c8c9dc8831743e34662",
    "name": "web",
    "description": "for test",
    "state": "Enabled",
    "createDate": "Jun 7, 2017 9:20:23 PM",
    "lastOpDate": "Jun 7, 2017 9:20:23 PM",
    "internalId": 0.0
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SecurityGroupInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
ipVersion	Integer	The IP version.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
attachedL3NetworkUuids	Set		0.6
rules	List	See rules .	0.6

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
type	String	The traffic type.	0.6
ipVersion	Integer	The IP version.	3.1.0
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
endPort	Integer	If the protocol is TCP or UDP, this parameter is the end port of the port range.	0.6

Name	Type	Description	Starting Version
		If the protocol is ICMP, this parameter is the ICMP type.	
protocol	String	The traffic protocol type.	0.6
state	String	The rule state, which is not implemented in the current version.	0.6
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is allowed to access VM NICs. - If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	0.6
remoteSecurityGroupUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
DeleteSecurityGroupRuleAction action = new DeleteSecurityGroupRuleAction();
```

```
action.ruleUuids = asList("5a88c1873bbf48e4a018f03f6bd055b6");
action.sessionId = "f42c32dbfc214bc58fb057d2c9cb63b1";
DeleteSecurityGroupRuleAction.Result res = action.call();
```

Python SDK

```
DeleteSecurityGroupRuleAction action = DeleteSecurityGroupRuleAction()
action.ruleUuids = [a9b41667676244e5b3da07d866869b31]
action.sessionId = "f8b0b8d01d8c4adc8058083e9f48a8a9"
DeleteSecurityGroupRuleAction.Result res = action.call()
```

5.4.1.7.14 QuerySecurityGroupRule

API Request

URLs

```
GET zstack/v1/security-groups/rules
GET zstack/v1/security-groups/rules/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 9aa7adfe564e4acda956ef90430b0f1b" \
-X GET http://localhost:8080/zstack/v1/security-groups/rules?
q=endPort=22&q=state=Enabled
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 36a86c5b46784b169fe82d7c990ae1a7" \
-X GET http://localhost:8080/zstack/v1/security-groups/rules/
ae59353d95f744b5b4396e1783ddb918
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySecurityGroupRule`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "b3a99fc1548b41778258153cfd70f4b7",
      "securityGroupUuid": "629d55f78c9f4b0e8e3504b9834ca1bb",
      "type": "Ingress",
      "startPort": 22.0,
      "endPort": 22.0,
      "protocol": "TCP",
```

```

"state": "Enabled",
"allowedCidr": "0.0.0.0/0",
"createDate": "Jun 7, 2017 9:20:25 PM",
"lastOpDate": "Jun 7, 2017 9:20:25 PM"
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
type	String	The traffic type.	0.6
ipVersion	Integer	The IP version.	3.1.0
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
endPort	Integer	- If the protocol is TCP or UDP, this parameter is the end port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	0.6
protocol	String	The traffic protocol type.	0.6
state	String	The rule state, which is not implemented in the current version.	0.6
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a	0.6

Name	Type	Description	Starting Version
		source CIDR that is allowed to access VM NICs. If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	
remoteSecurityGroupUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QuerySecurityGroupRuleAction action = new QuerySecurityGroupRuleAction();
action.conditions = asList("endPort=22","state=Enabled");
action.sessionId = "362452e4e8a746ce981a5a54c7390445";
QuerySecurityGroupRuleAction.Result res = action.call();
```

Python SDK

```
QuerySecurityGroupRuleAction action = QuerySecurityGroupRuleAction()
action.conditions = ["endPort=22","state=Enabled"]
action.sessionId = "37e099aa344c40ca947d11dff7ec2b91"
```

```
QuerySecurityGroupRuleAction.Result res = action.call()
```

5.4.1.7.15 ValidateSecurityGroupRule

API Request

URLs

```
GET zstack/v1/security-groups/{securityGroupUuid}/rules/validation
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/security-
groups/0351d8b796bd3165967f13d1da2f9576/rules/validation?
type=Ingress&protocol=TCP&remoteSecurityGroupUuid=f938bc96baae3dc4b18be6bdbf34e78
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
securityGroupUuid	String	url	The security group UUID.		4.7.21
type	String	query	The type of the security group rule.	- Ingress - Egress	4.7.21
protocol	String	query	The protocol of the security group rule.	- TCP - UDP - ICMP - ALL	4.7.21
remoteSecurityGroupUuid	String	query	Optional. The remote security group UUID.		4.7.21
ipVersion	Integer	query	Optional. The IP version of the security group rule.	4 6	4.7.21

Name	Type	Location	Description	Optional Value	Starting Version
srcIpRange	String	query	Optional. The range of the source IP of the security group rule.		4.7.21
dstIpRange	String	query	Optional. The range of the target IP of the security group rule.		4.7.21
dstPortRange	String	query	Optional. The range of the target port of the security group rule.		4.7.21
action	String	query	Optional. The default action of the security group rule.	• ACCEPT • DROP	4.7.21
startPort	Integer	query	Optional. The startport of the security group rule.		4.7.21
endPort	Integer	query	Optional. The endpoint of the security group rule.		4.7.21
allowedCidr	String	query	Optional. The range of IP version of the security group rule.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "available": true,
  "code": "SG.2000"
}
```

Name	Type	Description	Starting Version
available	boolean	Whether the rule is valid.	4.7.21
code	String	The error code of the rule.	4.7.21
reason	String	reason	4.7.21
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

SDK Sample

Java SDK

```
ValidateSecurityGroupRuleAction action = new ValidateSecurityGroupRuleAction();
action.securityGroupId = "0351d8b796bd3165967f13d1da2f9576";
action.type = "Ingress";
action.protocol = "TCP";
action.remoteSecurityGroupId = "f938bc96baae3dc4b18be6bdbf34e783";
action.ipVersion = 4;
action.srcIpRange = "10.0.0.1,10.0.0.2-10.0.0.200,10.1.1.0/24";
action.dstIpRange = "10.0.0.1,10.0.0.2-10.0.0.200,10.1.1.0/24";
action.dstPortRange = "1000,1001,1002-1005,1008";
action.action = "ACCEPT";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ValidateSecurityGroupRuleAction.Result res = action.call();
```

Python SDK

```
ValidateSecurityGroupRuleAction action = ValidateSecurityGroupRuleAction()
action.securityGroupId = "0351d8b796bd3165967f13d1da2f9576"
action.type = "Ingress"
action.protocol = "TCP"
action.remoteSecurityGroupId = "f938bc96baae3dc4b18be6bdbf34e783"
action.ipVersion = 4
action.srcIpRange = "10.0.0.1,10.0.0.2-10.0.0.200,10.1.1.0/24"
action.dstIpRange = "10.0.0.1,10.0.0.2-10.0.0.200,10.1.1.0/24"
action.dstPortRange = "1000,1001,1002-1005,1008"
action.action = "ACCEPT"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ValidateSecurityGroupRuleAction.Result res = action.call()
```

5.4.1.7.16 ChangeSecurityGroupRule

API Request

URLs

```
PUT zstack/v1/security-groups/rules/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeSecurityGroupRule": {
    "description": "test",
    "remoteSecurityGroupUuid": "bd2dcc93fbd73999bf920aeaab3c9e4e",
    "action": "DROP",
    "state": "Enabled",
    "priority": 1,
    "protocol": "TCP",
    "srcIpRange": "1.1.1.1,2.2.2.0/24,3.3.3.1-3.3.3.10",
    "dstPortRange": "1001,2000-2023,6001"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"changeSecurityGroupRule":
{"description":"test","remoteSecurityGroupUuid":"bd2dcc93fbd73999bf920aeaab3c9e4e",
http://localhost:8080/zstack/v1/security-
groups/85a1d77188d836eab47b34e7129fb5fb/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The security group UUID.		4.7.21

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the rule.		4.7.21
remoteSecurityGroupUuid	String	body (contained in the params structure)	Optional. The remote security group UUID.	enabledisable	4.7.21
action	String	body (contained in the params structure)	Optional. The default action of the rule.	• DROP • ACCEPT	4.7.21
state	String	body (contained in the params structure)	Optional. The rule status.	• Enabled • Disabled	4.7.21
priority	Integer	body (contained in the params structure)	Optional. The rule priority.		4.7.21
protocol	String	body (contained in the params structure)	Optional. The protocol type.	• ALL • TCP • UDP • ICMP	4.7.21
srcIpRange	String	body (contained in the params structure)	Optional. The range of the source IP of the rule.		4.7.21
dstIpRange	String	body (contained in the params structure)	Optional. The range of the target IP of the rule.		4.7.21
dstPortRange	String	body (contained in the params structure)	Optional. The range of the target port of the rule.		4.7.21

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "inventory": {
    "uuid": "68e4f4b48b51369c8c2ada5cb6c2c3c3",
    "securityGroupUuid": "c80ad90499213d3b9989afdbfe498390",
    "type": "ingress",
    "protocol": "tcp",
    "state": "enable",
    "srcIpRange": "10.10.10.1-10.10.10.10",
    "dstPortRange": "2001-2023",
    "action": "RETURN",
    "createDate": "Sep 15, 2023 9:57:59 AM",
    "lastOpDate": "Sep 15, 2023 9:57:59 AM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	SecurityGroupInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
securityGroupUuid	String	The security group UUID.	4.7.21
type	String	The traffic type.	4.7.21
ipVersion	Integer	The IP version.	3.1.0
protocol	String	The traffic protocol type.	4.7.21
state	String	The rule state.	4.7.21
priority	Integer	The rule priority.	4.7.21
description	String	The description of the rule.	4.7.21
srcIpRange	String	The range of the source IP of the rule.	4.7.21
dstIpRange	String	The range of the target IP of the rule.	4.7.21
srcPortRange	String	The range of the source port of the	4.7.21

Name	Type	Description	Starting Version
		rule, which is not implemented in the current version.	
dstPortRange	String	The range of the target port of the rule.	4.7.21
action	String	The default action of the rule.	4.7.21
remoteSecurityGroupUuid	String		4.7.21
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is allowed to access VM NICs. - If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	4.7.21
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	4.7.21

Name	Type	Description	Starting Version
endPort	Integer	- If the protocol is TCP or UDP, this parameter is the end port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
ChangeSecurityGroupRuleAction action = new ChangeSecurityGroupRuleAction();
action.uuid = "33869c6c323d30599da314fe1e46b01c";
action.description = "test";
action.remoteSecurityGroupUuid = "bd2dcc93fbd73999bf920aeaab3c9e4e";
action.action = "DROP";
action.state = "Enabled";
action.priority = 1;
action.protocol = "TCP";
action.srcIpRange = "1.1.1.1,2.2.2.0/24,3.3.3.1-3.3.3.10";
action.dstPortRange = "1001,2000-2023,6001";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeSecurityGroupRuleAction.Result res = action.call();
```

Python SDK

```
ChangeSecurityGroupRuleAction action = ChangeSecurityGroupRuleAction()
action.uuid = "33869c6c323d30599da314fe1e46b01c"
action.description = "test"
action.remoteSecurityGroupUuid = "bd2dcc93fbd73999bf920aeaab3c9e4e"
action.action = "DROP"
action.state = "Enabled"
action.priority = 1
action.protocol = "TCP"
action.srcIpRange = "1.1.1.1,2.2.2.0/24,3.3.3.1-3.3.3.10"
action.dstPortRange = "1001,2000-2023,6001"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeSecurityGroupRuleAction.Result res = action.call()
```

5.4.1.7.17 ChangeSecurityGroupRuleState

API Request

URLs

```
PUT zstack/v1/security-groups/{securityGroupUuid}/rules/state/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeSecurityGroupRuleState": {
    "ruleUuids": [
      "c895848e49763a85a74d0a8cee5a0720"
    ],
    "state": "Enabled"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"changeSecurityGroupRuleState":{"ruleUuids":
["c895848e49763a85a74d0a8cee5a0720"],"state":"Enabled"}}'
http://localhost:8080/zstack/v1/security-groups/
fbd126afdf6b32caab55327d2901170f/rules/state/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
securityGroupUuid	String	url	The security group UUID.		4.7.21
ruleUuids	List	body (contained in the	The group UUID list.		4.7.21

Name	Type	Location	Description	Optional Value	Starting Version
		changeSecurityGroupRuleState (structure)			
state	String	body (contained in the changeSecurityGroupRuleState structure)	The rule state.	• Enabled • Disabled	4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "inventory": {
    "uuid": "7c95c623cc983a548dcf3c9a257f23ae",
    "name": "web",
    "description": "for test",
    "state": "Enabled",
    "createDate": "Sep 15, 2023 9:58:00 AM",
    "lastOpDate": "Sep 15, 2023 9:58:00 AM",
    "internalId": 0
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	SecurityGroupInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
name	String	The resource name.	4.7.21
description	String	The detailed description of the resource.	4.7.21
state	String		4.7.21
ipVersion	Integer	The IP version.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

Name	Type	Description	Starting Version
attachedL3NetworkUuids	Set		4.7.21
rules	List	See rules .	4.7.21

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
securityGroupUuid	String	The security group UUID.	4.7.21
type	String	The traffic type.	4.7.21
ipVersion	Integer	The IP version.	4.7.21
protocol	String	The traffic protocol type.	4.7.21
state	String	The rule state.	4.7.21
priority	Integer	The rule priority.	4.7.21
description	String	The description of the rule.	4.7.21
srcIpRange	String	The range of the source IP of the rule.	4.7.21
dstIpRange	String	The range of the target IP of the rule.	4.7.21
srcPortRange	String	The range of the source port of the rule, which is not implemented in the current version.	4.7.21
dstPortRange	String	The range of the target port of the rule.	4.7.21
action	String	The default action of the rule.	4.7.21
remoteSecurityGroupUuid	String		4.7.21
allowedCidr	String	The allowed CIDR, which has	4.7.21

Name	Type	Description	Starting Version
		different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is allowed to access VM NICs. - If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	4.7.21
endPort	Integer	- If the protocol is TCP or UDP, this parameter is the end port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
ChangeSecurityGroupRuleStateAction action = new ChangeSecurityGroupRuleStateAction();
action.securityGroupUuid = "fbd126afdf6b32caab55327d2901170f";
action.ruleUuids = asList("c895848e49763a85a74d0a8cee5a0720");
action.state = "Enabled";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeSecurityGroupRuleStateAction.Result res = action.call();
```

Python SDK

```
ChangeSecurityGroupRuleStateAction action = ChangeSecurityGroupRuleStateAction()
action.securityGroupUuid = "fbd126afdf6b32caab55327d2901170f"
action.ruleUuids = [c895848e49763a85a74d0a8cee5a0720]
action.state = "Enabled"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeSecurityGroupRuleStateAction.Result res = action.call()
```

5.4.1.7.18 UpdateSecurityGroupRulePriority

API Request

URLs

```
PUT zstack/v1/security-groups/{securityGroupUuid}/rules/priority/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSecurityGroupRulePriority": {
    "type": "Ingress",
    "rules": [
      {
        "ruleUuid": "7a73154d5d2331308f462c6bf2f725cb",
        "priority": 1
      }
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"updateSecurityGroupRulePriority":
{"type":"Ingress","rules":
[{"ruleUuid":"7a73154d5d2331308f462c6bf2f725cb","priority":1}]}}'
http://localhost:8080/zstack/v1/security-groups/
ea321fd5d0f7388e8efd4427c9fae15f/rules/priority/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
securityGroupUuid	String	url	The security group UUID.		4.7.21
type	String	body (contained in the updateSecurityGroupRulePriority structure)	The rule type.	- Ingress - Egress	4.7.21
rules	List	body (contained in the updateSecurityGroupRulePriority structure)	The rule priority.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "inventory": {
    "uuid": "777dbc5ec0cb3b14828096daa9e04133",
```

```

    "name": "test",
    "internalId": 0
  }
}

```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	SecurityGroupInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
name	String	The resource name.	4.7.21
description	String	The detailed description of the resource.	4.7.21
state	String		4.7.21
ipVersion	Integer	The IP version.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21
attachedL3NetworkUuids	Set		4.7.21
rules	List	See rules .	4.7.21

#rules

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
securityGroupUuid	String	The security group UUID.	4.7.21
type	String	The traffic type.	4.7.21
ipVersion	Integer	The IP version.	4.7.21
protocol	String	The traffic protocol type.	4.7.21
state	String	The rule state.	4.7.21
priority	Integer	The rule priority.	4.7.21
description	String	The description of the rule.	4.7.21
srcIpRange	String	The range of the source IP of the rule.	4.7.21
dstIpRange	String	The range of the target IP of the rule.	4.7.21
srcPortRange	String	The range of the source port of the rule, which is not	4.7.21

Name	Type	Description	Starting Version
		implemented in the current version.	
dstPortRange	String	The range of the target port of the rule.	4.7.21
action	String	The default action of the rule.	4.7.21
remoteSecurityGroupUuid	String		4.7.21
allowedCidr	String	- The allowed CIDR, which has different meanings according to different traffic types. - If the traffic type is Ingress, the allowed CIDR is a source CIDR that is allowed to access VM NICs. - If the traffic type is Egress, the allowed CIDR is a destination CIDR that is allowed to leave from VM NICs.	4.7.21
startPort	Integer	- If the protocol is TCP or UDP, this parameter is the start port of the port range. - If the protocol is ICMP, this parameter is the ICMP type.	4.7.21
endPort	Integer	If the protocol is TCP or UDP, this	4.7.21

Name	Type	Description	Starting Version
		parameter is the end port of the port range. If the protocol is ICMP, this parameter is the ICMP type.	
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
UpdateSecurityGroupRulePriorityAction action = new UpdateSecurityGroupRulePriorityAction();
action.securityGroupUuid = "ea321fd5d0f7388e8efd4427c9fae15f";
action.type = "Ingress";
action.rules = asList([ruleUuid:7a73154d5d2331308f462c6bf2f725cb, priority:1]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSecurityGroupRulePriorityAction.Result res = action.call();
```

Python SDK

```
UpdateSecurityGroupRulePriorityAction action = UpdateSecurityGroupRulePriorityAction()
action.securityGroupUuid = "ea321fd5d0f7388e8efd4427c9fae15f"
action.type = "Ingress"
action.rules = [[ruleUuid:7a73154d5d2331308f462c6bf2f725cb, priority:1]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSecurityGroupRulePriorityAction.Result res = action.call()
```

5.4.1.7.19 QueryVmNicSecurityPolicy

API Request

URLs

```
GET zstack/v1/security-groups/nics/security-policy
```

```
GET zstack/security-groups/nics/{uuid}/security-policy
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/security-groups/nics/security-policy?q=ingressPolicy=DROP&q=egressPolicy=DROP
```

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/security-groups/nics/a4ef9b72cb66352f9040ce0f8c180b80/security-policy
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVmNicSecurityPolicy`, and pressing the **Tab** key.

API Response

Response Sample

```
{
  "inventories": [
    {
      "vmNicUuid": "40d02946a770317aa1edac79ef350f3f",
      "ingressPolicy": "DROP",
      "egressPolicy": "ACCEPT",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
inventories	List	See inventory .	4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
vmNicUuid	String	The VM NIC UUID.	4.7.21
ingressPolicy	String	The ingress policy of the NIC.	4.7.21
egressPolicy	String	The egress policy of the NIC.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
QueryVmNicSecurityPolicyAction action = new QueryVmNicSecurityPolicyAction();
```

```
action.conditions = asList("ingressPolicy=DROP","egressPolicy=DROP");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVmNicSecurityPolicyAction.Result res = action.call();
```

Python SDK

```
QueryVmNicSecurityPolicyAction action = QueryVmNicSecurityPolicyAction
()
action.conditions = ["ingressPolicy=DROP","egressPolicy=DROP"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVmNicSecurityPolicyAction.Result res = action.call()
```

5.4.1.7.20 ChangeVmNicSecurityPolicy

API Request

URLs

```
PUT zstack/v1/security-groups/nics/{vmNicUuid}/security-policy/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVmNicSecurityPolicy": {
    "ingressPolicy": "ALLOW",
    "egressPolicy": "DENY"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"changeVmNicSecurityPolicy":
{"ingressPolicy":"ALLOW","egressPolicy":"DENY"}}'
http://localhost:8080/zstack/v1/security-groups/
nics/5551303bee7037c8848cdb5741be7ff7/security-policy/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID.		4.7.21
ingressPolicy	String	body (contained in the changeVmNicSecurityPolicy structure)	Optional. The ingress policy of the NIC.	- DENY - ALLOW	4.7.21
egressPolicy	String	body (contained in the changeVmNicSecurityPolicy structure)	Optional. The egress policy of the NIC.	- DENY - ALLOW	4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "inventory": {
    "uuid": "2c8164f7e3213f1491640a2f98d0a979",
    "vmNicUuid": "c731cb960eb635a997e58d154d3c4252",
    "ingressPolicy": "DENY",
    "egressPolicy": "ALLOW",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.7.21

Name	Type	Description	Starting Version
		more information, see error .	
inventory	SecurityGroupInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
vmNicUuid	String	The VM NIC UUID.	4.7.21
ingressPolicy	String	The ingress policy of the NIC.	4.7.21
egressPolicy	String	The egress policy of the NIC.	4.7.21

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
ChangeVmNicSecurityPolicyAction action = new ChangeVmNicSecurityPolicyAction();
action.vmNicUuid = "5551303bee7037c8848cdb5741be7ff7";
action.ingressPolicy = "ALLOW";
action.egressPolicy = "DENY";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeVmNicSecurityPolicyAction.Result res = action.call();
```

Python SDK

```
ChangeVmNicSecurityPolicyAction action = ChangeVmNicSecurityPolicyAction()
action.vmNicUuid = "5551303bee7037c8848cdb5741be7ff7"
action.ingressPolicy = "ALLOW"
action.egressPolicy = "DENY"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeVmNicSecurityPolicyAction.Result res = action.call()
```

5.4.1.7.21 SetVmNicSecurityGroup

API Request

URLs

```
PUT zstack/v1/security-groups/nics/{vmNicUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVmNicSecurityGroup": {
    "refs": [
      {
        "securityGroupUuid": "a63c3b35a6553b4a912ee60cd06d5066",
        "priority": 1
      }
    ]
  },
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"setVmNicSecurityGroup":{"refs":
[{"securityGroupUuid":"a63c3b35a6553b4a912ee60cd06d5066","priority":1}]}}'
http://localhost:8080/zstack/v1/security-groups/
nics/6b7ad223ebb2328bb646f2e77b34957b/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID.		4.7.21
refs	List	body (contained in the setVmNicSecurityGroup structure)	The security group attached to the NIC.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response**Response Sample**

```
{
  "inventory": [
    {
      "uuid": "33aa195b943c3faa87e2c75a787cb7f5",
      "priority": 1,
      "securityGroupUuid": "63ec5dcb248138968f0153160b5b8b3a"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SecurityGroupInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
priority	Integer	The priority of the security group.	4.7.21
vmNicUuid	String	The VM NIC UUID.	0.6
securityGroupUuid	String	The security group UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
SetVmNicSecurityGroupAction action = new SetVmNicSecurityGroupAction
();
action.vmNicUuid = "6b7ad223ebb2328bb646f2e77b34957b";
action.refs = asList([securityGroupUuid:a63c3b35a6553b4a912ee60cd06d50
66, priority:1]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVmNicSecurityGroupAction.Result res = action.call();
```

Python SDK

```
SetVmNicSecurityGroupAction action = SetVmNicSecurityGroupAction()
action.vmNicUuid = "6b7ad223ebb2328bb646f2e77b34957b"
action.refs = [[securityGroupUuid:a63c3b35a6553b4a912ee60cd06d5066,
priority:1]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetVmNicSecurityGroupAction.Result res = action.call()
```

5.4.1.8 VIP Operations

5.4.1.8.1 CreateVip

API Request

URLs

```
POST zstack/v1/vips
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "vip1",
    "l3NetworkUuid": "15788630ef6644af99c5378edf4e54da",
    "ipRangeUuid": "2e6e249189d83883aeb4c0fe79f82967",
    "requiredIp": "10.0.0.2"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name": "vip1", "l3NetworkUuid": "b75e7bddf2803f6c85f8450b01262546", "ipRangeUuid": "
http://localhost:8080/zstack/v1/vips
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
l3NetworkUuid	String	body (contained in the params structure)	The UUID of the L3 network that uses the VIP service.		0.6
ipRangeUuid	String	body (contained in the params structure)	Optional. The IP range UUID.		3.9.0
allocatorStrategy	String	body (contained in the params structure)	Optional. The allocator strategy.	- DefaultHostAllocatorStrategy - LastHostPreferredAllocatorStrategy - LeastVmPreferredHostAllocatorStrategy - MinimumCPUUsageHostAllocatorStrategy - MinimumMemoryUsageHostAllocatorStrategy - MaxInstancePerHostHostAllocatorStrategy	0.6
requiredIp	String	body (contained in	Optional. The IP address		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	that you specified.		
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "45a2700283f039a39f40100505a68609",
    "name": "vip1",
    "ipRangeUuid": "da8d443f5c923c969118721845891d53",
    "l3NetworkUuid": "e43b5613fd8039ee888cca53dae87341",
    "ip": "192.168.0.1",
    "state": "Enabled",
    "gateway": "127.0.0.1",
    "netmask": "255.255.0.0",
    "peerL3NetworkUuids": [
      "1f970d11e2be3b0da5ad65cd4d20a549"
    ],
    "system": false
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VipInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
l3NetworkUuid	String	The UUID of the L3 network that uses the VIP service.	0.6
ip	String	The IP address of the IPv4 type.	0.6
state	String	The state of the VIP, including Enabled and Disabled.	0.6
gateway	String	The gateway.	0.6

Name	Type	Description	Starting Version
netmask	String	The netmask.	0.6
prefixLen	String	The prefix length.	3.1.0
serviceProvider	String	The service provider that provides the VIP service.	0.6
peerL3NetworkUuid	String	The UUID of the L3 network that provides the VIP service.	0.6
useFor	String	The usage, such as port forwarding.	0.6
system	boolean	Whether the VIP is created by the system.	3.9.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
servicesRefs	List	See servicesRefs .	0.6

#servicesRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
serviceType	String	The service type.	3.9.0
vipUuid	String	The VIP UUID.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```

CreateVipAction action = new CreateVipAction();
action.name = "vip1";
action.l3NetworkUuid = "b75e7bddf2803f6c85f8450b01262546";
action.ipRangeUuid = "2e6e249189d83883aeb4c0fe79f82967";
action.requiredIp = "10.0.0.2";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```



```
CreateVipAction.Result res = action.call();
```

Python SDK

```
CreateVipAction action = CreateVipAction()  
action.name = "vip1"  
action.l3NetworkUuid = "b75e7bddf2803f6c85f8450b01262546"  
action.ipRangeUuid = "2e6e249189d83883aeb4c0fe79f82967"  
action.requiredIp = "10.0.0.2"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
CreateVipAction.Result res = action.call()
```

5.4.1.8.2 DeleteVip

API Request

URLs

```
DELETE zstack/v1/vips/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth 191031ca5ac34d5e92e1a86cde878edf" \  
-X DELETE http://localhost:8080/zstack/v1/  
vips/38791fa2927b459cbeff033db96c3479?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVipAction action = new DeleteVipAction();
action.uuid = "8da4c26b4089423f93cbce8ab804f9e9";
action.deleteMode = "Permissive";
action.sessionId = "772f7846b7c24d9b933deb8b03fc3024";
DeleteVipAction.Result res = action.call();
```

Python SDK

```
DeleteVipAction action = DeleteVipAction()
action.uuid = "addc2d7cb578402f9ce1569402338c1b"
action.deleteMode = "Permissive"
action.sessionId = "429360288ef140afaeb86961b638ea62"
DeleteVipAction.Result res = action.call()
```

5.4.1.8.3 QueryVip

API Request

URLs

```
GET zstack/v1/vips
GET zstack/v1/vips/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth fbe1443215334b0aa609b5417f5f36ab" \
-X GET http://localhost:8080/zstack/v1/vips?
q=uuid=ba1cf7be9f20433fa5091bec091ba22d
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 39036aee2ef641afac5b253aee2377be" \
```

```
-X GET http://localhost:8080/zstack/v1/vips/
a077653982cb422daa06e6c2d840b140
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVip`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "8c5eb4938be549218fda4c87de4d8cad",
      "name": "new name",
      "ipRangeUuid": "7d0dda5b1c4f40069ec4cfd6b66bdf48",
      "l3NetworkUuid": "a81054a6807e47a09922473e9ab376cb",
      "ip": "192.168.0.1",
      "state": "Enabled",
      "gateway": "127.0.0.1",
      "netmask": "255.255.0.0",
      "peerL3NetworkUuid": [
        "64ef7a2ea9ec4095b343ea239a7ba344"
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String	The IP address of the IPv4 type.	0.6
state	String	The state of the VIP, including Enabled and Disabled.	0.6
gateway	String	The gateway.	0.6
netmask	String	The netmask.	0.6
prefixLen	String	The prefix length.	3.1.0
serviceProvider	String	The service provider that provides the VIP service.	0.6

Name	Type	Description	Starting Version
peerL3NetworkUuid	String	The L3 private network UUID or the VPC L3 network UUID.	0.6
useFor	String	The usage, such as port forwarding.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryVipAction action = new QueryVipAction();
action.conditions = asList("uuid=0a573b1c687246ff970c04ef5d0eaf07");
action.sessionId = "bf2f206d12d742d3a9182ea663e12265";
QueryVipAction.Result res = action.call();
```

Python SDK

```
QueryVipAction action = QueryVipAction()
action.conditions = ["uuid=5a3bf1e979944ea4a958fdac5a8bcef2"]
action.sessionId = "bc563fd71d014e84a49f1d280ef020ff"
QueryVipAction.Result res = action.call()
```

5.4.1.8.4 CheckVipPortAvailability

API Request

URLs

```
GET zstack/v1/vips/{vipUuid}/check-port-availability
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json";charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET -d '{"params":
{"vipUuid":"b75e7bddf2803f6c85f8450b01262546","protocolType":"TCP","port":5}}'
http://localhost:8080/zstack/v1/vips/
e6ac71f8cf433c51822bedea67cf4781//check-port-availability
```

Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vipUuid	String	body(contained in the params structure)	The VIP UUID .		4.7.21
protocolType	String	body(contained in the params structure)	The protocol type.		4.7.21
port	int	body(contained in the params structure)	The port to be queried.		4.7.21

API Response

Sample Response

```
{
  "available":true
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.7.21
available	boolean		4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

SDK Sample

Java SDK

```
CheckVipPortAvailabilityAction action = new CheckVipPortAvailabilityAction();
action.vipUuid = "e6ac71f8cf433c51822bedea67cf4781";
action.protocolType = "TCP";
action.port = 5;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckVipPortAvailabilityAction.Result res = action.call();
```

Python SDK

```
CheckVipPortAvailabilityAction action = new CheckVipPortAvailabilityAction();
action.vipUuid = "e6ac71f8cf433c51822bedea67cf4781";
action.protocolType = "TCP";
action.port = 5;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckVipPortAvailabilityAction.Result res = action.call();
```

5.4.1.8.5 GetVipAvailablePort

API Request

URLs

```
GET zstack/v1/vips/{vipUuid}/get-port-availability
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json";charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \-X GET -d
'{"params":
{"vipUuid":"b75e7bddf2803f6c85f8450b01262546","protocolType":"TCP","start":5,"lim
http://localhost:8080/zstack/v1/vips/
e6ac71f8cf433c51822bedea67cf4781/get-port-availability
```

Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vipUuid	String	body(contained in the params structure)	The VIP UUID .		4.7.21
protocolType	String	body(contained in the params structure)	The protocol type.		4.7.21
start	Integer	body(contained in the params structure)	The query start point.		4.7.21
limit	Integer	body(contained in the params structure)	The query limit .		4.7.21

API Response

Sample Response

```
{
  "availablePort": [1, 2, 3]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.7.21
availablePort	List		4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

SDK Sample

Java SDK

```
GetVipAvailablePortAction action = new GetVipAvailablePortAction();
action.vipUuid = "e6ac71f8cf433c51822bedea67cf4781";
action.protocolType = "TCP";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVipAvailablePortAction.Result res = action.call();
```

Python SDK

```
GetVipAvailablePortAction action = new GetVipAvailablePortAction();
action.vipUuid = "e6ac71f8cf433c51822bedea67cf4781";
action.protocolType = "TCP";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
GetVipAvailablePortAction.Result res = action.call();
```

5.4.1.8.6 UpdateVip

API Request

URLs

```
PUT zstack/v1/vips/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVip": {
    "name": "new name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVip":{"name":"new name"}}' \
http://localhost:8080/zstack/v1/vips/cb7f47adc9e0386d952990c88835048c/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateVip structure)	Optional. The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the updateVip structure)	Optional. The detailed description of the resource.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "afc62fc544524344804c558156b57938",
    "name": "new name",
    "ipRangeUuid": "cbe101ec40844785ac64f0693e56122a",
    "l3NetworkUuid": "06272fa02c0b4776a0fb1bab6171ba34",
    "ip": "192.168.0.1",
    "state": "Enabled",
    "gateway": "127.0.0.1",
    "netmask": "255.255.0.0",
    "peerL3NetworkUuid": [
      "e35c8f6a65d14e8492e6fb72382dc1b4"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VipInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String	The IP address of the IPv4 type.	0.6
state	String	The state of the VIP, including Enabled and Disabled.	0.6
gateway	String	The gateway.	0.6
netmask	String	The netmask.	0.6
prefixLen	String	The prefix length.	3.1.0

Name	Type	Description	Starting Version
serviceProvider	String	The service provider that provides the VIP service.	0.6
peerL3NetworkUuid	String	The L3 private network UUID or the VPC L3 network UUID.	0.6
useFor	String	The usage, such as port forwarding.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateVipAction action = new UpdateVipAction();
action.uuid = "dbea243ee5c04eb5b68f8905baec42c6";
action.name = "new name";
action.sessionId = "b9f7110e36c147e7abcfbd0215c56368";
UpdateVipAction.Result res = action.call();
```

Python SDK

```
UpdateVipAction action = UpdateVipAction()
action.uuid = "620313f8f6724571addc8ef00959d951"
action.name = "new name"
action.sessionId = "4632313cde0a4cbaa67c7ff2109ebe60"
UpdateVipAction.Result res = action.call()
```

5.4.1.8.7 ChangeVipState

API Request

URLs

```
PUT zstack/v1/vips/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeVipState": {
```

```

    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeVipState":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/vips/5dae8db6e42831a1a219768d1f16abb5/
actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
stateEvent	String	body (contained in the changeVipState structure)	The state event.	- enable - disable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response**Sample Response**

```

{
  "inventory": {
    "uuid": "50be5da2ebcc41b1aa0413b611f2a723",
    "name": "vip1",
    "ipRangeUuid": "6c8c280a596846a3967c1202cc049770",
    "l3NetworkUuid": "df62c1dedde04fffbdb591dc737a10772",
    "ip": "192.168.0.1",
    "state": "Enabled",
    "gateway": "127.0.0.1",
    "netmask": "255.255.0.0",

```

```

    "peerL3NetworkUuid": [
      "bdb49f66946143538608b8feb6b3c35a"
    ]
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VipInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String	The IP address of the IPv4 type.	0.6
state	String	The state of the VIP, including Enabled and Disabled.	0.6
gateway	String	The gateway.	0.6
netmask	String	The netmask.	0.6
prefixLen	String	The prefix length.	3.1.0
serviceProvider	String	The service provider that provides the VIP service.	0.6
peerL3NetworkUuid	String	The L3 private network UUID or the VPC L3 network UUID.	0.6
useFor	String	The usage, such as port forwarding.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
ChangeVipStateAction action = new ChangeVipStateAction();
action.uuid = "2165a4d5e45441088244ff4fa3614412";
action.stateEvent = "enable";
action.sessionId = "2e1079fe6f4f45dab2f97f86d5a0fbc8";
ChangeVipStateAction.Result res = action.call();
```

Python SDK

```
ChangeVipStateAction action = ChangeVipStateAction()
action.uuid = "0191aa0014ae4b24ac7a87886a6d5527"
```



```
action.stateEvent = "enable"
action.sessionId = "1549fc2b0547482fb562020512ad89b6"
ChangeVipStateAction.Result res = action.call()
```

5.4.1.8.8 GetVipUsedPorts

API Request

URLs

```
GET zstack/v1/vips/{uuid}/usedports
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e7b86195e5f74c698dc5d0521b0ad25d" \
-X GET http://localhost:8080/zstack/v1/vips/
d8474e0dbfe84d47a449bb34979cbcb9/usedports?protocol=TCP
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	query	The VIP UUID		2.2
protocol	String	query	The protocol.	- tcp - udp	2.2
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "4f5f926580f4452a897b05b8f99e67ec",
      "protocol": "TCP",
      "usedPorts": [
        "100",
        "200",
```

```

    "201",
    "202",
    "204",
    "1000"
  ]
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2
inventories	List	See inventories .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

#inventories

Name	Type	Description	Starting Version
uuid	String	The VIP UUID.	2.2
protocol	String		2.2
usedPorts	List		2.2

SDK Sample

Java SDK

```
GetVipUsedPortsAction action = new GetVipUsedPortsAction();
action.uuid = "771a6f6fae9d49dca26ae309d137549e";
action.protocol = "TCP";
action.sessionId = "ef2bbc8896fa4368a4da1c4b2e39a9d8";
GetVipUsedPortsAction.Result res = action.call();
```

Python SDK

```
GetVipUsedPortsAction action = GetVipUsedPortsAction()
action.uuid = "66313677af4e42fe8926703d89cf0164"
action.protocol = "TCP"
action.sessionId = "62f7ea6470954497966345142873bbfa"
GetVipUsedPortsAction.Result res = action.call()
```

5.4.1.8.9 SetVipQos

API Request

URLs

```
PUT zstack/v1/vips/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setVipQos": {
    "port": 22.0,
    "outboundBandwidth": 1048576.0,
    "inboundBandwidth": 1048576.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setVipQos":
{"port":22.0,"outboundBandwidth":1048576.0,"inboundBandwidth":1048576.0}}' \
http://localhost:8080/zstack/v1/vips/9b500046ab303d42a8d8a17565b5673b/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
port	Integer	body (contained in the setVipQos structure)	Optional. The port.		2.3
outboundBandwidth	Long	body (contained in the setVipQos structure)	Optional. The outbound bandwidth of the request port.		2.3
inboundBandwidth	Long	body (contained in the setVipQos structure)	Optional. The inbound bandwidth of the request port. Make sure that either inboundBandwidth or outboundBandwidth is not null.		2.3
systemTags	List	body	Optional. The system tags.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		2.3

**Note:**

Make sure that either **inboundBandwidth** or **outboundBandwidth** is not null.

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "dd9459fe90ff4ae0b26ab3cbf1f1e3a2",
    "vipUuid": "e82e583934b441aaaf37039ff5eba877",
    "port": 80.0,
    "inboundBandwidth": 1048576.0,
    "outboundBandwidth": 1048576.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	VipQosInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3

Name	Type	Description	Starting Version
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
vipUuid	String	The VIP UUID.	2.3
port	Integer	The port.	2.3
inboundBandwidth	Long	The outbound bandwidth of the response port.	2.3
outboundBandwidth	Long	The inbound bandwidth of the response port.	2.3
type	String	The QoS unit type.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
SetVipQosAction action = new SetVipQosAction();
action.uuid = "9b500046ab303d42a8d8a17565b5673b";
action.port = 22.0;
action.outboundBandwidth = 1048576.0;
action.inboundBandwidth = 1048576.0;
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetVipQosAction.Result res = action.call();
```

Python SDK

```
SetVipQosAction action = SetVipQosAction()
action.uuid = "9b500046ab303d42a8d8a17565b5673b"
action.port = 22.0
action.outboundBandwidth = 1048576.0
action.inboundBandwidth = 1048576.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetVipQosAction.Result res = action.call()
```

5.4.1.8.10 GetVipQos

API Request

URLs

```
GET zstack/v1/vip/{uuid}/vip-qos
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vip/
e7bd5b22962e33ba8608533f18f10bd1/vip-qos
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	Optional. The resource UUID.		2.3
systemTags	List	query	Optional. The system tags.		2.3
userTags	List	query	Optional. The user tags.		2.3

API Response

Sample Response

```
{
```

```

"inventories": [
  {
    "uuid": "5a0b0e4ab75c4fffa890cf085add862f",
    "vipUuid": "23349810e3874c2dad85042db1ac11dc",
    "port": 80.0,
    "inboundBandwidth": 1048576.0,
    "outboundBandwidth": 1048576.0
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventories	List	See inventories .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
vipUuid	String	The VIP UUID.	2.3
port	Integer	The port.	2.3
inboundBandwidth	Long	The outbound bandwidth of the response port.	2.3
outboundBandwidth	Long	The inbound bandwidth of the response port.	2.3
type	String	The QoS unit type.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
GetVipQosAction action = new GetVipQosAction();
action.uuid = "e7bd5b22962e33ba8608533f18f10bd1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVipQosAction.Result res = action.call();
```

Python SDK

```
GetVipQosAction action = GetVipQosAction()
action.uuid = "e7bd5b22962e33ba8608533f18f10bd1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetVipQosAction.Result res = action.call()
```

5.4.1.8.11 DeleteVipQos

API Request

URLs

```
DELETE zstack/v1/vips/{uuid}/vip-qos?port={port}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vips/
cbfc39af27633b31927fa0c259bfde80/vip-qos?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
port	Integer	url	Optional. The port.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteVipQosAction action = new DeleteVipQosAction();
action.uuid = "cbfc39af27633b31927fa0c259bfde80";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVipQosAction.Result res = action.call();
```

Python SDK

```
DeleteVipQosAction action = DeleteVipQosAction()
action.uuid = "cbfc39af27633b31927fa0c259bfde80"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteVipQosAction.Result res = action.call()
```

5.4.1.9 EIP Operations

5.4.1.9.1 CreateEip

API Request

URLs

```
POST zstack/v1/eips
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-EIP",
    "vipUuid": "7fdf1752627948afb2418f93825c478b",
    "vmNicUuid": "be5532b08b7a48949667b654468dc5a5"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth c0bd88f213cf42bc8b8fd42d1b269d50" \
-X POST -d '{"params":{"name":"Test-EIP","vipUuid":"f1b1901cefa939d7bf5775ec71735637","vmNicUuid":"bb64d3fc676b3b5cb0"}' \
http://localhost:8080/zstack/v1/eips
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The EIP name .		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the EIP.		0.6
vipUuid	String	body (contained in the params structure)	The VIP UUID .		0.6
vmNicUuid	String	body (contained in the params structure)	Optional. The VM NIC UUID.		0.6
usedIpUuid	String	body (contained in the params structure)	Optional. The IP UUID.		3.1.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the VM instance will use the specified value as the UUID.		0.6
systemTags	List	body	Optional. The EIP system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The EIP user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-EIP",
    "vmNicUuid": "07f9715b85da40d9bd17e5f4277304bd",
    "vipUuid": "acc6dc9271f54e58ab94e4a1069bc7e5"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	EipInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
vipUuid	String	The VIP UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
viplp	String		0.6
guestlp	String		0.6

SDK Sample

Java SDK

```
CreateEipAction action = new CreateEipAction();
action.name = "Test-EIP";
action.vipUuid = "a600144228904c709d9d36a7d8e7bc50";
action.vmNicUuid = "c6ef3b3fc5c54033ad07514e3ee71199";
action.sessionId = "284027438a4e46d4abb185a30eaac6ff";
CreateEipAction.Result res = action.call();
```

Python SDK

```
CreateEipAction action = CreateEipAction()
action.name = "Test-EIP"
action.vipUuid = "8e6507f39d6f40479f48a974a9d6afd2"
action.vmNicUuid = "91ad47c708e140fd83348182a3f098a6"
action.sessionId = "9bdd3970d72144c8899edb0158a4ed6d"
```

```
CreateEipAction.Result res = action.call()
```

5.4.1.9.2 DeleteEip

API Request

URLs

```
DELETE/v1/eips/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 45ccb9eb4add405d9059fb45990a6e8c" \
-X DELETE http://localhost:8080/zstack/v1/
eips/468cb75384344acd87f22610d07080e5?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The EIP UUID		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteEipAction action = new DeleteEipAction();
action.uuid = "7ff634c9d79c48ca976a34ce53951c76";
action.deleteMode = "Permissive";
action.sessionId = "44b7b711d77b4dfa91257db5b9a61585";
DeleteEipAction.Result res = action.call();
```

Python SDK

```
DeleteEipAction action = DeleteEipAction()
action.uuid = "e0699e3693ea429180371be5ca95e49e"
action.deleteMode = "Permissive"
action.sessionId = "ee71c70ee83a4ef8876f86d3876dbc8f"
DeleteEipAction.Result res = action.call()
```

5.4.1.9.3 QueryEip

API Request

URLs

```
GET zstack/v1/eips
GET zstack/v1/eips/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth ecbf8328397545a890cb7f299016ff65" \
-X GET http://localhost:8080/zstack/v1/eips
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 58e98c60b171447b8c1940b5a8a1ad0f" \
-X GET http://localhost:8080/zstack/v1/
eips/66803656d159456dacda9c074945e40d
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryEip`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "Test-EIP",
      "vmNicUuid": "67dfb04014b64489addb9ff7db5c7eb8",
      "vipUuid": "e5bafce543e044419a8ffad7d416201e"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
vipUuid	String	The VIP UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
viplp	String		0.6
guestlp	String		0.6

SDK Sample

Java SDK

```
QueryEipAction action = new QueryEipAction();
action.conditions = asList();
action.sessionId = "02a7bb80af0a43ea8cecb01e8361f4a3";
QueryEipAction.Result res = action.call();
```

Python SDK

```
QueryEipAction action = QueryEipAction()
action.conditions = []
action.sessionId = "84b2e52f0e2a41d09b428627b6266f28"
```

```
QueryEipAction.Result res = action.call()
```

5.4.1.9.4 UpdateEip

API Request

URLs

```
PUT zstack/v1/eips/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateEip": {
    "name": "Test-EIP"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 48675e997cc24705a248f756bd4c617c" \
-X PUT -d '{"updateEip":{"name":"Test-EIP"}}' \
http://localhost:8080/zstack/v1/eips/4d153a67262f341cbb4d5351ec844ab7/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The EIP UUID		0.6
name	String	body (contained in the updateEip structure)	Optional. The EIP name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the updateEip structure)	Optional. The detailed description of the EIP.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-EIP",
    "vmNicUuid": "cb1779456b2e47ecb436385e9731fa92",
    "vipUuid": "b092230e024e4d4bab4f8919ee6b4848"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	EipInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
vipUuid	String	The VIP UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
viplp	String		0.6
guestlp	String		0.6

SDK Sample

Java SDK

```
UpdateEipAction action = new UpdateEipAction();
action.uuid = "81ab4053a9484332b8e1aafa7e00a399";
action.name = "Test-EIP";
action.sessionId = "08c50da7ac034e6f9461785af2f94a7e";
```

```
UpdateEipAction.Result res = action.call();
```

Python SDK

```
UpdateEipAction action = UpdateEipAction()
action.uuid = "e510fba3a1c646559d1db59f9b37c751"
action.name = "Test-EIP"
action.sessionId = "2d0aff43d9fe4294b16069f6762d0832"
UpdateEipAction.Result res = action.call()
```

5.4.1.9.5 ChangeEipState

API Request

URLs

```
PUT zstack/v1/eips/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeEipState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth ba708ad93aa54eb696ea994d412d539a" \
-X PUT -d '{"changeEipState":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/eips/e6c715aaa65c39aa948d88e548a5f044/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The EIP UUID.		0.6
stateEvent	String	body (contained in the changeEipState structure)	The state event.	- enable - disable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-EIP",
    "vmNicUuid": "8384e17c064a4b3f819421beb695891d",
    "vipUuid": "4ab30bbbf55f4bcda38acd573335d6d7",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	EipInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
vipUuid	String	The VIP UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
viplp	String		0.6
guestlp	String		0.6

SDK Sample

Java SDK

```
ChangeEipStateAction action = new ChangeEipStateAction();
action.uuid = "ae4f106e8e884788bf73ee2e863a2ad3";
action.stateEvent = "enable";
action.sessionId = "c35fc61e1a784c41a17cb9a0fe9cd2a5";
ChangeEipStateAction.Result res = action.call();
```

Python SDK

```
ChangeEipStateAction action = ChangeEipStateAction()
action.uuid = "b5b5cd464d2d48cca37352fb904e5226"
action.stateEvent = "enable"
action.sessionId = "17f673d897dc47fb845c48fba7af7942"
ChangeEipStateAction.Result res = action.call()
```

5.4.1.9.6 GetEipAttachableVmNics

API Request

URLs

```
GET zstack/v1/eips/{eipUuid}/vm-instances/candidate-nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth dd4a7d40a7e246879ea53fff9fb6dc02" \
-X GET http://localhost:8080/zstack/v1/
eips/6bd0a6a4e5dd4f618ff314289acc112f/vm-instances/candidate-nics
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
eipUuid	String	url	Optional. The EIP UUID.		0.6
vipUuid	String	query	Optional. The VIP UUID.		0.6
systemTags	List	query	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "b9d15f91920738cb9c1d3d54c543da87",
      "vmInstanceUuid": "426e0bf3909c3049be70e9f621d69cae",
      "usedIpUuid": "74f3ce37130c386f8b79d1656285a41b",
      "l3NetworkUuid": "cad25a3e482d39e8b428a4f25db07b41",
      "ip": "192.168.1.10",
      "mac": "00:0c:29:bd:99:fc",
      "hypervisorType": "KVM",
      "netmask": "255.255.255.0",
      "gateway": "192.168.1.1",
      "deviceId": 0.0,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
ipVersion	Integer	The IP version.	3.1.0
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
usedIps	List	See usedIps .	0.6

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ipRangeUuid	String	The IP range UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ipVersion	Integer	The IP version.	3.1.0
ip	String	The IP address.	0.6
netmask	String	The netmask.	0.6
gateway	String	The gateway.	0.6
usedFor	String		0.6
ipInLong	long		0.6
vmNicUuid	String	The VM NIC UUID.	3.1.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```

GetEipAttachableVmNicsAction action = new GetEipAttachableVmNicsAction
();
action.eipUuid = "281f3fe6c8bc42d7a2b7911db8bc8a9b";
action.sessionId = "05d5744919984e6680655fcfc85e6dd9";
GetEipAttachableVmNicsAction.Result res = action.call();

```

Python SDK

```

GetEipAttachableVmNicsAction action = GetEipAttachableVmNicsAction()
action.eipUuid = "998c40730b1b4dd19ca464d7d30f432c"
action.sessionId = "7682cccd2c74324b1a82232cd730657"

```

```
GetEipAttachableVmNicsAction.Result res = action.call()
```

5.4.1.9.7 GetVmNicAttachableEips

API Request

URLs

```
GET zstack/v1/vm-instances/nics/{vmNicUuid}/candidate-eips
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth dd4a7d40a7e246879ea53fff9fb6dc02" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
nics/9d11dc19607c32cda7268c0655e117fc/candidate-eips?
limit=1000.0&start=0.0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmNicUuid	String	url	The VM NIC UUID.		4.4.6
ipVersion	Integer	query	Optional. The IP version.	4 6	4.4.6
limit	Integer	query	Optional. The limit of the returned results.		4.4.6
start	Integer	query	Optional. The start position of the query.		4.4.6
systemTags	List	query	Optional. The system tags.		4.4.6
userTags	List	query	Optional. The user tags.		4.4.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "fe174df8c1003e3a9f13aa73104f45ee",
      "name": "eip",
      "vmNicUuid": "d29fb63d5aba4bbf98ec8663d6b4ba21",
      "vipUuid": "a5cfe85eb0d7448fbe153360c52114ce",
      "createDate": "Nov 14, 2017 9:20:57 AM",
      "lastOpDate": "Nov 14, 2017 9:20:57 AM",
      "state": "Enable",
      "vipIp": "10.72.109.11",
      "guestIp": "172.168.1.1"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.4.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.4.6
inventories	List	See inventories .	4.4.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.6
description	String	The brief description of the error.	4.4.6
details	String	The details about the error.	4.4.6
elaboration	String	The reserved field. Default value: null.	4.4.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.6
name	String	The resource name.	4.4.6
description	String	The resource description.	4.4.6
vmNicUuid	String	The VM NIC UUID.	4.4.6
vipUuid	String	The VIP UUID.	4.4.6
createDate	Timestamp	The creation date.	4.4.6
lastOpDate	Timestamp	The last operation date.	4.4.6
state	String		4.4.6
viplp	String		4.4.6
guestlp	String		4.4.6

SDK Sample

Java SDK

```
GetVmNicAttachableEipsAction action = new GetVmNicAttachableEipsAction();
action.vmNicUuid = "9d11dc19607c32cda7268c0655e117fc";
action.limit = 1000.0;
action.start = 0.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVmNicAttachableEipsAction.Result res = action.call();
```

Python SDK

```
GetVmNicAttachableEipsAction action = GetVmNicAttachableEipsAction()
```

```

action.vmNicUuid = "9d11dc19607c32cda7268c0655e117fc"
action.limit = 1000.0
action.start = 0.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVmNicAttachableEipsAction.Result res = action.call()

```

5.4.1.9.8 AttachEip

API Request

URLs

```
POST zstack/v1/eips/{eipUuid}/vm-instances/nics/{vmNicUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {},
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/
v1/eips/b7b3d87e803434f3b597638377830e68/vm-instances/
nics/3fb731573096397c90dbe65781d5b616

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
eipUuid	String	url	The EIP UUID		0.6
vmNicUuid	String	body	The VM NIC UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
usedIpUuid	String	body (contained in the params structure)	Optional. The IP UUID.		3.1.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AttachEipAction action = new AttachEipAction();
action.eipUuid = "dfce2872f32f4eab81cce8be02d564f7";
action.vmNicUuid = "77439a0f6c464053937fdcf12531647e";
action.sessionId = "80a49201196649f296e8b1c3b03d2284";
AttachEipAction.Result res = action.call();
```

Python SDK

```
AttachEipAction action = AttachEipAction()
action.eipUuid = "080064a02ea9470a9364bdc255c1cfa6"
action.vmNicUuid = "e255a04227b94b5181eda063e1f8b17a"
action.sessionId = "beebaac6f3fe4ac99db525f8775b5a61"
```

```
AttachEipAction.Result res = action.call()
```

5.4.1.9.9 DetachEip

API Request

URLs

```
DELETE/v1/eips/{uuid}/vm-instances/nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 7e5d824e15c64e1ca2fc3eca9e315c41" \
-X DELETE http://localhost:8080/zstack/v1/
eips/6e1a3bdbe38045658546a6b7fb3df990/vm-instances/nics?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The EIP UUID		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-EIP",
    "vmNicUuid": "04c0bc3e4c1d44c8aac1fd2e1be10d81",
    "vipUuid": "8284fce519774899a3ba01e304df6c3b"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	0.6

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventory	EipInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6

Name	Type	Description	Starting Version
vipUuid	String	The VIP UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
state	String		0.6
viplp	String		0.6
guestlp	String		0.6

SDK Sample

Java SDK

```
DetachEipAction action = new DetachEipAction();
action.uuid = "9a8c75df80524b13adf769626703efc0";
action.sessionId = "e7b6f5ef6d134d058e7d85e3ccd226a8";
DetachEipAction.Result res = action.call();
```

Python SDK

```
DetachEipAction action = DetachEipAction()
action.uuid = "28ddb9165c1444a7a7aa5119a5ceb926"
action.sessionId = "47e371f392934e3f8edbc49031fcf376"
DetachEipAction.Result res = action.call()
```

5.4.1.10 Port Forwarding Operations

5.4.1.10.1 CreatePortForwardingRule

API Request

URLs

```
POST zstack/v1/port-forwarding
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vipUuid": "214cf4f562bf40b98a7c954081f94f03",
    "vipPortStart": 22.0,
    "protocolType": "TCP",
    "vmNicUuid": "84590db8896d4e498bf69d35239a31cc",
```

```
"name": "pf1"
  },
  "systemTags": [],
  "userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vipUuid": "1c4824bb6043388cac7499dd481ecaa4", "vipPortStart": 22.0, "protocolType":
\
http://localhost:8080/zstack/v1/port-forwarding
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vipUuid	String	body (contained in the params structure)	The VIP UUID .		0.6
vipPortStart	Integer	body (contained in the params structure)	The VIP start port.		0.6
vipPortEnd	Integer	body (contained in the params structure)	Optional. The VIP end port. If not specified , the value of vipPortStart will be used by default.		0.6
privatePortStart	Integer	body (contained in the params structure)	Optional. The start port of the guest IP address (the IP address of the VM NIC).		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			If not specified , the value of vipPortStart will be used by default.		
privatePortEnd	Integer	body (contained in the params structure)	Optional. The end port of the guest IP address (the IP address of the VM NIC). If not specified , the value of vipPortEnd will be used by default.		0.6
protocolType	String	body (contained in the params structure)	The protocol type of the network traffic.	• TCP • UDP	0.6
vmNicUuid	String	body (contained in the params structure)	Optional. The VM NIC UUID.		0.6
allowedCidr	String	body (contained in the params structure)	Optional. The source CIDR . The port forwarding rule is only applied to the traffics of the source CIDR. If not specified , 0.0.0.0/0 will be used by default.		0.6
name	String	body (contained in	The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID. If specified, the system will not allocate randomly a UUID to the resource.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "895a8ce93d274db78e2ef1462f8b8a29",
    "name": "TestAttachRule",
    "description": "test atatch rule",
    "vipIp": "192.168.0.187",
    "guestIp": "10.0.0.244",
    "vipUuid": "6151c96fd2ac4d6cbd8f8eedffc06de5",
    "vipPortStart": 33.0,
    "vipPortEnd": 33.0,
    "privatePortStart": 33.0,
    "privatePortEnd": 33.0,
    "vmNicUuid": "581ea3b08aef4096ac24e160f1ab0f8e",
    "protocolType": "TCP",
    "state": "Enabled",
    "allowedCidr": "0.0.0.0/0",
    "createDate": "Jun 7, 2017 9:20:10 PM",
    "lastOpDate": "Jun 7, 2017 9:20:10 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PortForwardingRuleInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
vipIp	String	The IP address of the VIP.	0.6
guestIp	String	The IP address of the VM NIC.	0.6
vipUuid	String	The VIP UUID.	0.6
vipPortStart	Integer	The start port of the VIP.	0.6
vipPortEnd	Integer	The end port of the VIP.	0.6
privatePortStart	Integer	The start port of guest IP address.	0.6
privatePortEnd	Integer	The end port of guest IP address.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
protocolType	String	The protocol type of the network traffic.	0.6
state	String	The state of the rule.	0.6
allowedCidr	String	The source CIDR. The port forwarding rule is only applied to the traffics of the source CIDR.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
CreatePortForwardingRuleAction action = new CreatePortForwardingRuleAction();
action.vipUuid = "966f9f294e094243bcfaf7eeee70aeae";
action.vipPortStart = 22.0;
action.protocolType = "TCP";
```

```

action.vmPid = "ace8c962d59248e38fadac5df9a108a7";
action.name = "pf1";
action.sessionId = "5f4df8c7fae44602b5f7e5d376904d6b";
CreatePortForwardingRuleAction.Result res = action.call();

```

Python SDK

```

CreatePortForwardingRuleAction action = CreatePortForwardingRuleAction
()
action.vmPid = "1d130b0bb1e44aafa76d6280479f5399"
action.vmPidStart = 22.0
action.protocolType = "TCP"
action.vmPid = "78c6172984874e5e9cdd3bf0248080ca"
action.name = "pf1"
action.sessionId = "4a3371ccd0cc4cdfa75ae46aeec14f41"
CreatePortForwardingRuleAction.Result res = action.call()

```

5.4.1.10.2 DeletePortForwardingRule

API Request

URLs

```
DELETE zstack/v1/port-forwarding/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 064a2c25381042d6b623c12e26418e78" \
-X DELETE http://localhost:8080/zstack/v1/port-
forwarding/495b48a2bcf745e1ac584be6e366f0ab?deleteMode=Permissive

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode. Options: Permissive Enforcing. Default mode: Permissive.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			• Permissive: If an error occurs, or if the delete operation is refused, ZStack Cloud will stop the delete operation. In this mode, an error code that contains the failure reason will be returned. • Enforcing: ZStack Cloud will ignore all errors and permissions to delete directly the resource. In this mode, the delete operation will always succeed.		
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeletePortForwardingRuleAction action = new DeletePortForwardingRuleAction();
action.uuid = "42154ff320ea407dbc8b48088e541dcb";
action.deleteMode = "Permissive";
action.sessionId = "2b5cb5c82fb846669cd2c5e557bb140e";
DeletePortForwardingRuleAction.Result res = action.call();
```

Python SDK

```
DeletePortForwardingRuleAction action = DeletePortForwardingRuleAction()
action.uuid = "a8ac2d430d71487ea47419950e39ee4a"
action.deleteMode = "Permissive"
action.sessionId = "156eb3cd301546828a925386f331eb34"
DeletePortForwardingRuleAction.Result res = action.call()
```

5.4.1.10.3 QueryPortForwardingRule

API Request

URLs

```
GET zstack/v1/port-forwarding
GET zstack/v1/port-forwarding/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 959a6d98336c4575a31212834d8ccc4d" \
```

```
-X GET http://localhost:8080/zstack/v1/port-forwarding?
q=name=pf1&q=state=Enabled
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 0389ba8bf3c44bf8a9c5ee89d066fbd" \
-X GET http://localhost:8080/zstack/v1/port-
forwarding/3d9c9dbbea944e039d55e706aacb6899
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryPortForwardingRule`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "c5cf6d7df3164418b3fe5c7569eb1dea",
      "name": "TestAttachRule",
      "description": "test atatch rule",
      "vipIp": "192.168.0.187",
      "guestIp": "10.0.0.244",
      "vipUuid": "b5166a0c9adb4aaf8088022b5336209a",
      "vipPortStart": 33.0,
      "vipPortEnd": 33.0,
      "privatePortStart": 33.0,
      "privatePortEnd": 33.0,
      "vmNicUuid": "8aa417eb4537475b815b289240e0c0c2",
      "protocolType": "TCP",
      "state": "Enabled",
      "allowedCidr": "0.0.0.0/0",
      "createDate": "Jun 7, 2017 9:21:17 PM",
      "lastOpDate": "Jun 7, 2017 9:21:17 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
vipIp	String	The IP address of the VIP.	0.6
guestIp	String	The IP address of the VM NIC.	0.6
vipUuid	String	The VIP UUID.	0.6
vipPortStart	Integer	The start port of the VIP.	0.6

Name	Type	Description	Starting Version
vipPortEnd	Integer	The end port of the VIP.	0.6
privatePortStart	Integer	The start port of the guest IP address.	0.6
privatePortEnd	Integer	The end port of the guest IP address.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
protocolType	String	The protocol type of the network traffic.	0.6
state	String	The state of the rule.	0.6
allowedCidr	String	The source CIDR. The port forwarding rule is only applied to the traffics of the source CIDR.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryPortForwardingRuleAction action = new QueryPortForwardingRuleAction();
action.conditions = asList("name=pf1", "state=Enabled");
action.sessionId = "4311e616ca8b4bb19d0792be1e08f3b8";
QueryPortForwardingRuleAction.Result res = action.call();
```

Python SDK

```
QueryPortForwardingRuleAction action = QueryPortForwardingRuleAction()
action.conditions = ["name=pf1", "state=Enabled"]
action.sessionId = "b9745425f62d43289db77d9bfd117b35"
```

```
QueryPortForwardingRuleAction.Result res = action.call()
```

5.4.1.10.4 UpdatePortForwardingRule

API Request

URLs

```
PUT zstack/v1/port-forwarding/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updatePortForwardingRule": {
    "name": "pf2",
    "description": "new rule"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updatePortForwardingRule":
{"name":"pf2","description":"new rule"}}' \
http://localhost:8080/zstack/v1/port-
forwarding/07eb042c2f5837a99f4018c3ee7e4137/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updatePort	Optional. The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		Forwarding Rule structure)			
description	String	body (contained in the updatePort Forwarding Rule structure)	Optional. The detailed description of the resource.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "420edb331ec34871a416e570fa4faf8b",
    "name": "TestAttachRule",
    "description": "test atatch rule",
    "vipIp": "192.168.0.187",
    "guestIp": "10.0.0.244",
    "vipUuid": "8282dbb28b70416790bd83d08d3718ba",
    "vipPortStart": 33.0,
    "vipPortEnd": 33.0,
    "privatePortStart": 33.0,
    "privatePortEnd": 33.0,
    "vmNicUuid": "2e63ec7524074e9dad1255d5e02f0697",
    "protocolType": "TCP",
    "state": "Enabled",
    "allowedCidr": "0.0.0.0/0",
    "createDate": "Jun 7, 2017 9:20:38 PM",
    "lastOpDate": "Jun 7, 2017 9:20:38 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	
inventory	PortForwardingRuleInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6

Name	Type	Description	Starting Version
vipIp	String	The IP address of the VIP.	0.6
guestIp	String	The IP address of the VM NIC.	0.6
vipUuid	String	The VIP UUID.	0.6
vipPortStart	Integer	The start port of the VIP.	0.6
vipPortEnd	Integer	The end port of the VIP.	0.6
privatePortStart	Integer	The start port of the guest IP address.	0.6
privatePortEnd	Integer	The end port of the guest IP address.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
protocolType	String	The protocol type of the network traffic.	0.6
state	String	The state of the rule.	0.6
allowedCidr	String	The source CIDR. The port forwarding rule is only applied to the traffics of the source CIDR.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdatePortForwardingRuleAction action = new UpdatePortForwardingRuleAction();
action.uuid = "b180491f86cd4de4befd11df26ebc4b1";
action.name = "pf2";
action.description = "new rule";
action.sessionId = "1130b06d95ed438386c8199cfae9e55b";
```

```
UpdatePortForwardingRuleAction.Result res = action.call();
```

Python SDK

```
UpdatePortForwardingRuleAction action = UpdatePortForwardingRuleAction
()
action.uuid = "fe896714482549eaac0cd07a6661664a"
action.name = "pf2"
action.description = "new rule"
action.sessionId = "0992d35c275a4def8bcbb013653b65f9"
UpdatePortForwardingRuleAction.Result res = action.call()
```

5.4.1.10.5 ChangePortForwardingRuleState

API Request

URLs

```
PUT zstack/v1/port-forwarding/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changePortForwardingRuleState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changePortForwardingRuleState":{"stateEvent":"disable"}}' \
http://localhost:8080/zstack/v1/port-forwarding/
d391cd5c4b57369daa48190ec0e193f6/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
stateEvent	String	body (contained in the changePort Forwarding RuleState structure)	The state of the port forwarding rule.	- enable - disable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "59d724e1f8e8417693fbc14d124ce801",
    "name": "TestAttachRule",
    "description": "test atatch rule",
    "vipIp": "192.168.0.187",
    "guestIp": "10.0.0.244",
    "vipUuid": "f9c5cbc8662d43408dc704003d4f70ad",
    "vipPortStart": 33.0,
    "vipPortEnd": 33.0,
    "privatePortStart": 33.0,
    "privatePortEnd": 33.0,
    "vmNicUuid": "1b41288698ac45149f352ab6c8de2531",
    "protocolType": "TCP",
    "state": "Enabled",
    "allowedCidr": "0.0.0.0/0",
    "createDate": "Jun 7, 2017 9:20:26 PM",
    "lastOpDate": "Jun 7, 2017 9:20:26 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

Name	Type	Description	Starting Version
inventory	PortForwardingRuleInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
viplp	String	The IP address of the VIP.	0.6

Name	Type	Description	Starting Version
guestIp	String	The IP address of the VM NIC.	0.6
vipUuid	String	The VIP UUID.	0.6
vipPortStart	Integer	The start port of the VIP.	0.6
vipPortEnd	Integer	The end port of the VIP.	0.6
privatePortStart	Integer	The start port of the guest IP address.	0.6
privatePortEnd	Integer	The end port of the guest IP address.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
protocolType	String	The protocol type of the network traffic.	0.6
state	String	The state of the rule.	0.6
allowedCidr	String	The source CIDR. The port forwarding rule is only applied to the traffics of the source CIDR.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
ChangePortForwardingRuleStateAction action = new ChangePortForwardingRuleStateAction();
action.uuid = "4a721a0136d94428951072e3314b5187";
action.stateEvent = "disable";
action.sessionId = "ce7e78520ff34fbd8dcc181fba226ee0";
ChangePortForwardingRuleStateAction.Result res = action.call();
```

Python SDK

```
ChangePortForwardingRuleStateAction action = ChangePortForwardingRuleStateAction()
action.uuid = "a694cfa2057e4bd087a076e6f970f8cf"
action.stateEvent = "disable"
```

```
action.sessionId = "abbfa65e2f3040038dc85a68ffa37c8b"
ChangePortForwardingRuleStateAction.Result res = action.call()
```

5.4.1.10.6 GetPortForwardingAttachableVmNics

API Request

URLs

```
GET zstack/v1/port-forwarding/{ruleUuid}/vm-instances/candidate-nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b6d8f8edb4aa48f388591c2dc83fabe9" \
-X GET http://localhost:8080/zstack/v1/port-forwarding/039e99f4cf9741adabaf972914fa9a30/vm-instances/candidate-nics
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ruleUuid	String	url	The UUID of the port forwarding rule.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "2eb90e57e12f400ba8349742840eb9f9",
      "vmInstanceUuid": "efa24e175ba34c1196f9818ea6f56e5f",
      "l3NetworkUuid": "39e4eeeb2b1e4bb885922cb5c6585277",
      "ip": "192.168.0.123",
      "mac": "fa:ef:34:5c:6c:00",
      "netmask": "255.255.255.0",
    }
  ]
}
```



```

"gateway": "192.168.0.1",
"internalName": "eth0",
"deviceId": 0.0
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
GetPortForwardingAttachableVmNicsAction action = new GetPortFor
wardingAttachableVmNicsAction();
action.ruleUuid = "5980282a68024f039ddfe379b43e49b1";
action.sessionId = "e309fcb7cb0545a3b802a21acfa4b397";
GetPortForwardingAttachableVmNicsAction.Result res = action.call();
```

Python SDK

```
GetPortForwardingAttachableVmNicsAction action = GetPortForwardingAtt
achableVmNicsAction()
action.ruleUuid = "530c24831aaf4ff6bda365c774952576"
action.sessionId = "595b1267d25d4c709c081ecb3ea2f00e"
```

```
GetPortForwardingAttachableVmNicsAction.Result res = action.call()
```

5.4.1.10.7 AttachPortForwardingRule

API Request

URLs

```
POST zstack/v1/port-forwarding/{ruleUuid}/vm-instances/nics/
{vmNicUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/
port-forwarding/4c74c079f5b836e1912d20914953d722/vm-instances/
nics/05c384cc720e32e4b57e93daea1c5b91
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ruleUuid	String	url	The UUID of the port forwarding rule.		0.6
vmNicUuid	String	url	The VM NIC UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "8727976deceb42e898d9efc50863564a",
    "name": "TestAttachRule",
    "description": "test atatch rule",
    "vipIp": "192.168.0.187",
    "guestIp": "10.0.0.244",
    "vipUuid": "2aa6a4055ce94c319894dfddc330376f",
    "vipPortStart": 33,
    "vipPortEnd": 33,
    "privatePortStart": 33,
    "privatePortEnd": 33,
    "vmNicUuid": "39f90e4259784eee880e1cbef31c88da",
    "protocolType": "TCP",
    "state": "Enabled",
    "allowedCidr": "0.0.0.0/0",
    "createDate": "Jun 7, 2017 9:20:32 PM",
    "lastOpDate": "Jun 7, 2017 9:20:32 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PortForwardingRuleInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
vipIp	String	The IP address of the VIP.	0.6
guestIp	String	The IP address of the VM NIC.	0.6
vipUuid	String	The VIP UUID.	0.6
vipPortStart	Integer	The start port of the VIP.	0.6
vipPortEnd	Integer	The end port of the VIP.	0.6
privatePortStart	Integer	The start port of the guest IP address.	0.6

Name	Type	Description	Starting Version
privatePortEnd	Integer	The end port of the guest IP address.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
protocolType	String	The protocol type of the network traffic.	0.6
state	String	The state of the rule.	0.6
allowedCidr	String	The source CIDR. The port forwarding rule is only applied to the traffics of the source CIDR.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
AttachPortForwardingRuleAction action = new AttachPortForwardingRuleAction();
action.ruleUuid = "b34b406cf94f432eb0755a9201798d1f";
action.vmNicUuid = "be5e6e16b1f0428a833d3152699766ea";
action.sessionId = "14dc12a577f14f1b9622850e00f06884";
AttachPortForwardingRuleAction.Result res = action.call();
```

Python SDK

```
AttachPortForwardingRuleAction action = AttachPortForwardingRuleAction()
action.ruleUuid = "3b83c27e561643778396b003a6294cea"
action.vmNicUuid = "4892663d34c642f8854306188276e890"
action.sessionId = "e1b52fc03d0f479c8da456abd4fd6e6b"
```

```
AttachPortForwardingRuleAction.Result res = action.call()
```

5.4.1.10.8 DetachPortForwardingRule

API Request

URLs

```
DELETE/v1/port-forwarding/{uuid}/vm-instances/nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth a6a2c933ccf449c99bd49481e9636751" \
-X DELETE http://localhost:8080/zstack/v1/port-forwarding/484d4bed50ab4c18a670982952ccfe61/vm-instances/nics?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Value
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "dc6ec21666fb42e6be62455f8e5a7307",
    "name": "TestAttachRule",
    "description": "test attach rule",
    "vipIp": "192.168.0.187",
    "guestIp": "10.0.0.244",
    "vipUuid": "72dfbe63f95147048a98e514ecbd3ee8",
    "vipPortStart": 33.0,
    "vipPortEnd": 33.0,
    "privatePortStart": 33.0,
    "privatePortEnd": 33.0,
    "vmNicUuid": "f06654fb4bd6485ebfba84398c98966f",
    "protocolType": "TCP",
```

```

"state": "Enabled",
"allowedCidr": "0.0.0.0/0",
"createDate": "Jun 7, 2017 9:20:02 PM",
"lastOpDate": "Jun 7, 2017 9:20:02 PM"
}
}

```

Name	Type	Description	Starting Value
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PortForwardingRuleInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Value
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Value
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
vipIp	String	The IP address of the VIP.	0.6
guestIp	String	The IP address of the VM NIC.	0.6
vipUuid	String	The VIP UUID.	0.6
vipPortStart	Integer	The start port of the VIP.	0.6
vipPortEnd	Integer	The end port of the VIP.	0.6
privatePortStart	Integer	The start port of the guest IP address.	0.6
privatePortEnd	Integer	The end port of the guest IP address.	0.6
vmNicUuid	String	The VM NIC UUID.	0.6
protocolType	String	The protocol type of the network traffic.	0.6
state	String	The state of the rule.	0.6
allowedCidr	String	The source CIDR. The port forwarding rule is only applied to the traffics of the source CIDR.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
DetachPortForwardingRuleAction action = new DetachPortForwardingRuleAction();
action.uuid = "307d4bf5fed34a859ade0af30c6720f9";
```

```
action.sessionId = "8c78997bf11344d79b49a2254ab88bb8";
DetachPortForwardingRuleAction.Result res = action.call();
```

Python SDK

```
DetachPortForwardingRuleAction action = DetachPortForwardingRuleAction
()
action.uuid = "c284fc4425ea4467b81dad21df147a8e"
action.sessionId = "545a07392cb2409e9888f8737da4ddfc"
DetachPortForwardingRuleAction.Result res = action.call()
```

5.4.1.11 Load Balancing Operations

5.4.1.11.1 CreateLoadBalancer

API Request

URLs

```
POST zstack/v1/load-balancers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-Lb",
    "vipUuid": "59a98484f6fe43b9af1d782f725f40ac"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 855586410b7b4c0cba21bfd5ed2df4fb" \
-X POST -d '{"params":{"name":"Test-Lb","vipUuid":"d7720f0981853e91b37678e4acb1d4f0"}}' http://localhost:8080/zstack/v1/load-balancers
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
vipUuid	String	body (contained in the params structure)	The VIP UUID.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
CreateLoadBalancerAction action = new CreateLoadBalancerAction();
action.name = "Test-Lb";
action.vipUuid = "861b79a91e894ea68f77ffd7007bb57d";
action.sessionId = "056fdb04a78544fd9a43f757d6af4700";
```

```
CreateLoadBalancerAction.Result res = action.call();
```

Python SDK

```
CreateLoadBalancerAction action = CreateLoadBalancerAction()
action.name = "Test-Lb"
action.vipUuid = "3b1839e4bef9437a9b0cf28789951009"
action.sessionId = "b21c8f46991440d48be3dcf5c4a36f15"
CreateLoadBalancerAction.Result res = action.call()
```

5.4.1.11.2 AttachVipToLoadBalancer

API Request

URLs

```
POST zstack/v1/load-balancers/{loadBalancerUuid}/vip/{vipUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 855586410b7b4c0cba21bfd5ed2df4fb" \
-X POST -d '{"params":{}}' \
http://localhost:8080/zstack/v1/load-balancers/
a627a001122d397481460b388659a06b/vip/aa9d600755023b0084ec54593a54c1db
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
loadBalancerUuid	String	url	The load balancer uuid.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
vipUuid	String	url	The VIP UUID		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AttachVipToLoadBalancerAction action = new AttachVipToLoadBalancerAction();
action.loadBalancerUuid = "a627a001122d397481460b388659a06b";
action.vipUuid = "aa9d600755023b0084ec54593a54c1db";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachVipToLoadBalancerAction.Result res = action.call();
```

Python SDK

```
AttachVipToLoadBalancerAction action = AttachVipToLoadBalancerAction()
action.loadBalancerUuid = "a627a001122d397481460b388659a06b"
action.vipUuid = "aa9d600755023b0084ec54593a54c1db"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachVipToLoadBalancerAction.Result res = action.call()
```

5.4.1.11.3 DeleteLoadBalancer

API Request

URLs

```
DELETE/v1/load-balancers/listeners/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 1ac325e9a263466d88a9bdf44c64ce96" \
-X DELETE http://localhost:8080/zstack/v1/load-balancers/listeners/
db191bc52926462eb21d24b30db7971f
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteLoadBalancerListenerAction action = new DeleteLoadBalancerLi  
stenerAction();  
action.uuid = "2e7918e14cb345888cb57769f117fb91";  
action.sessionId = "efa96e940fce42c58c5e43885ce1f37f";  
DeleteLoadBalancerListenerAction.Result res = action.call();
```

Python SDK

```
DeleteLoadBalancerListenerAction action = DeleteLoadBalancerLi  
stenerAction()  
action.uuid = "be721492004a49038940201562070e1e"  
action.sessionId = "4a6baa8346204970bf3ce9397f48504a"  
DeleteLoadBalancerListenerAction.Result res = action.call()
```

5.4.1.11.4 QueryLoadBalancer

API Request

URLs

```
GET zstack/v1/load-balancers  
GET zstack/v1/load-balancers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth 18a70c9589fa4d93a59a228488e459fb" \  
-X GET http://localhost:8080/zstack/v1/load-balancers
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b3fd9ebb07e44e61be3c1f4d24710f9d" \  
-X GET http://localhost:8080/zstack/v1/load-  
balancers/2bc2a3e1855249c6ad436556915253d5
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryLoadBalancer`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "Test-Lb",
      "uuid": "36c2ba1d4a86409693a2de40fa0473ca",
      "vipUuid": "8807c418b3b74ee5991006bcc4c670e4"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The detailed description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
vipUuid	String	The VIP UUID.	0.6
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
listeners	List	See listeners .	0.6

#listeners

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
loadBalancerUuid	String	The load balancer UUID.	0.6
instancePort	Integer		0.6
loadBalancerPort	Integer		0.6
protocol	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
vmNicRefs	List	See vmNicRefs .	0.6
certificateRefs	List	See certificateRefs .	0.6

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		0.6
listenerUuid	String		0.6
vmNicUuid	String	The VM NIC UUID.	0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#certificateRefs

Name	Type	Description	Starting Version
id	Long		2.3
listenerUuid	String		2.3
certificateUuid	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
QueryLoadBalancerAction action = new QueryLoadBalancerAction();
action.conditions = asList();
action.sessionId = "d649f3ea966e437db93b2049bef206ca";
QueryLoadBalancerAction.Result res = action.call();
```

Python SDK

```
QueryLoadBalancerAction action = QueryLoadBalancerAction()
action.conditions = []
action.sessionId = "244697b709b0490ab8d8d37e6f94592f"
```

```
QueryLoadBalancerAction.Result res = action.call()
```

5.4.1.11.5 RefreshLoadBalancer

API Request

URLs

```
PUT zstack/v1/load-balancers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "refreshLoadBalancer": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b1e125550d924d17a0efa1bb6dd36806" \
-X PUT -d '{"refreshLoadBalancer":{}}' \
http://localhost:8080/zstack/v1/load-balancers/9fb0a5a16d06393db160485b0b79fd49/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-Lb",
    "uuid": "ee6de94ed5bf49c8b09a7bd3e5965c60",
    "vipUuid": "691e275592d84c898c1d495febf42a9a"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LoadBalancerInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
vipUuid	String	The VIP UUID.	0.6
createDate	Timestamp	The creation date.	3.1.0
lastOpDate	Timestamp	The last operation date.	3.1.0
listeners	List	See listeners .	0.6

#listeners

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
loadBalancerUuid	String	The load balancer UUID.	0.6
instancePort	Integer		0.6
loadBalancerPort	Integer		0.6
protocol	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
vmNicRefs	List	See vmNicRefs .	0.6
aclRefs	List	See aclRefs .	3.9.0

Name	Type	Description	Starting Version
certificateRefs	List	See certificateRefs .	0.6

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		0.6
listenerUuid	String		0.6
vmNicUuid	String	The VM NIC UUID.	0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#aclRefs

Name	Type	Description	Starting Version
id	Long	The resource UUID.	3.9.0
listenerUuid	String	The listener UUID.	3.9.0
aclUuid	String	The UUID of the access control list group.	3.9.0
type	String	The type of the access control list.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		2.3
listenerUuid	String		2.3
certificateUuid	String		2.3
createDate	Timestamp	The creation date.	2.3

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
RefreshLoadBalancerAction action = new RefreshLoadBalancerAction();
action.uuid = "cad53be6896e43cf8aef4021d165f56d";
action.sessionId = "fec73392481a4edaa2738131516ef0d7";
RefreshLoadBalancerAction.Result res = action.call();
```

Python SDK

```
RefreshLoadBalancerAction action = RefreshLoadBalancerAction()
action.uuid = "3556da2f1d3b47e48ec3068a5c3055ba"
action.sessionId = "9947fe6582f44b5a961143d08f49a2eb"
RefreshLoadBalancerAction.Result res = action.call()
```

5.4.1.11.6 CreateLoadBalancerListener

API Request

URLs

```
POST zstack/v1/load-balancers/{loadBalancerUuid}/listeners
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-Listener",
    "instancePort": 80,
    "loadBalancerPort": 80,
    "protocol": "http",
    "aclStatus": "disable",
    "aclType": "black"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-Listener","instancePort":80,"loadBalancerPort":80,"protocol":"http","aclStatus":"http://localhost:8080/zstack/v1/load-balancers/192b3fe960d63e078ced8f59529a25ad/listeners'}
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
loadBalancerUuid	String	url	The UUID of the load balancer listener.		0.6
name	String	body (contained in the params structure)	The name of the load balancer listener.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
instancePort	Integer	body (contained in the params structure)	Optional. The VM port.		0.6
loadBalancerPort	int	body (contained in the params structure)	The load balancer port.		0.6
protocol	String	body (contained in the params structure)	Optional. The protocol.	- tcp - http - https - udp	3.0.0
certificateUuid	String	body (contained in the params structure)	Optional. The certificate UUID.		2.3.2

Name	Type	Location	Description	Optional Value	Starting Version
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
instancePort	Integer	body (contained in the params structure)	Optional.		3.9.0
healthCheckProtocol	String	body (contained in the params structure)	Optional. The health check protocol.	• tcp • udp • http	3.9.0
healthCheckMethod	String	body (contained in the params structure)	Optional. The health check method.	• GET • HEAD	3.9.0
healthCheckURI	String	body (contained in the params structure)	Optional. The health check URI.		3.9.0
healthCheckHttpCode	String	body (contained in the params structure)	Optional. The expected response code of the health check.		3.9.0
aclStatus	String	body (contained in the params structure)	The access control status.	• enable • disable	3.9.0
aclUuids	list	body (contained in the params structure)	Optional. The access control list.		3.9.0
aclType	String	body (contained in the params structure)	Optional. The access control type.	• white • black	3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
tagUuids	list	body (contained in the params structure)	Optional. The tag UUID list.		3.9.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
securityPolicyType	String	body (contained in the params structure)	Optional. The TLS security policy.	• tls_cipher_policy_default • tls_cipher_policy_1_0 • tls_cipher_policy_1_1 • tls_cipher_policy_1_2 • tls_cipher_policy_1_2_strict • tls_cipher_policy_1_2_strict_with_1_3	5.0.0
httpVersions	List	body (contained in the params structure)	Optional. The Load Balancer frontend network HTTP protocol version.	• h1 • h2	5.0.0
tcpProxyProtocol	String	body (contained in the params structure)	Optional. The TCP Proxy Protocol agreement.	• v1 • v2 • disable	5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
httpCompressAlgos	List	body (contained in the params structure)	Optional. The HTTP compression algorithm.	- deflate - raw-deflate - gzip - disable	5.0.0

**Note:**

- When you create a load balancer listener in ZStack Cloud, you can set seven layers of health check parameters by adding the **healthCheckParameter** option to **SystemTags**.
 - Format of the **healthCheckParameter** option: `healthCheckParameter:: {parameter}`. Here, the parameter can be `healthCheckParameter::method:uri:expect-result`.
 - Example: `healthCheckParameter::GET:/healthstatus.html:http_2xx`
- When you create a load balancer listener in ZStack Cloud, you can set the access control status of the listener by adding the **accessControlStatus** option to **SystemTags**.
 - Format of the **accessControlStatus** option: `accessControlStatus:: {status}`
 - Example: `accessControlStatus::enable`
- When you create a load balancer listener in ZStack Cloud, you can set whether to enable the session persistence and specify the session persistence mode by adding the **sessionPersistence** option to **SystemTags**.
 - Format of the **sessionPersistence** option: `sessionPersistence:: { %s }`. The value of %s can be disable/iphash/insert/rewrite.
 - Example: `sessionPersistence::insert`.
- When you create a load balancer listener in ZStack Cloud, you can specify the session persistence time by adding the **sessionIdleTimeout** option to **SystemTags**.
 - Format of the **sessionIdleTimeout** option: `sessionIdleTimeout:: { %s }`. Here, %s is the session persistence time. Valid value: 30-3600. Unit:second.
 - Example: `sessionIdleTimeout::60`
- When you create a load balancer listener in ZStack Cloud, you can set the rewritten cookie name by adding the **cookieName** option to **SystemTags**.

- Format of the `validRegexValues::{%s}`. Here, %s is the cookie name. The name must be 1 to 20 characters and can contain uppercase or lowercase letters, digits, hyphens (-), and underscores (_).
- Example: `cookieName::zstack-cookie`.
- When you create a load balancer listener in ZStack Cloud, you can set whether to enable http redirect by adding the **httpRedirectHttps** option to **SystemTags**.
 - Format of the `httpRedirectHttps::{%s}`. Here, the value of %s can be disable/enable.
 - Example: `httpRedirectHttps::enable`
- When you create a load balancer listener in ZStack Cloud, you can set redirect port by adding **redirectPort** option to **SystemTags**.
 - Format of the `redirectPort::{%s}`. Here, the number range of %s can be 1-65535.
 - Example: `redirectPort::80`
- When you create a load balancer listener in ZStack Cloud, you can set redirect status code by adding **statusCode** optional to **SystemTags**.
 - Format of the `statusCode::{%s}`. Here, the value of %s can be 301/302/303/307/308.
 - Example: `statusCode::302`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "e82212513e2f3644885d98ce164ee687",
    "name": "Test-Listener",
    "loadBalancerUuid": "f7b267e9a5683ba5981b79196ca65d47",
    "instancePort": 80,
    "loadBalancerPort": 80,
    "protocol": "http"
  }
}
```

Name	Type	Description	Starting Version
success	Boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

Name	Type	Description	Starting Version
inventory	LoadBalancerListener Inventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
loadBalancerUuid	String	The load balancer UUID.	0.6
instancePort	Integer		0.6

Name	Type	Description	Starting Version
loadBalancerPort	Integer		0.6
protocol	String		0.6
serverGroupUuid	String		5.0.0
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
vmNicRefs	List	See vmNicRefs .	0.6
aclRefs	List	See aclRefs .	3.9.0
certificateRefs	List	See certificateRefs .	2.3.2
serverGroupRefs	List	See serverGroupRefs	5.0.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		0.6
listenerUuid	String		0.6
vmNicUuid	String	The VM NIC UUID.	0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#aclRefs

Name	Type	Description	Starting Version
id	Long	The resource UUID.	3.9.0
listenerUuid	String	The listener UUID.	3.9.0
aclUuid	String	The UUID of the access control list.	3.9.0
type	String	The access control type.	3.9.0
createDate	Timestamp	The creation date.	3.9.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.9.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		2.3
listenerUuid	String		2.3
certificateUuid	String		2.3.2
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#serverGroupRefs

Name	Type	Description	Starting Version
id	long		5.0.0
listenerUuid	String		5.0.0
serverGroupUuid	String		5.0.0
createDate	Timestamp	The create date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```

CreateLoadBalancerListenerAction action = new CreateLoadBalancerLi
stenerAction();
action.loadBalancerUuid = "192b3fe960d63e078ced8f59529a25ad";
action.name = "Test-Listener";
action.instancePort = 80;
action.loadBalancerPort = 80;
action.protocol = "http";
action.aclStatus = "disable";
action.aclType = "black";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
CreateLoadBalancerListenerAction.Result res = action.call();
```

Python SDK

```
CreateLoadBalancerListenerAction action = CreateLoadBalancerLi  
stenerAction()  
action.loadBalancerUuid = "192b3fe960d63e078ced8f59529a25ad"  
action.name = "Test-Listener"  
action.instancePort = 80  
action.loadBalancerPort = 80  
action.protocol = "http"  
action.aclStatus = "disable"  
action.aclType = "black"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
CreateLoadBalancerListenerAction.Result res = action.call()
```

5.4.1.11.7 DeleteLoadBalancerListener

API Request

URLs

```
DELETE/v1/load-balancers/listeners/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth 1ac325e9a263466d88a9bdf44c64ce96" \  
-X DELETE http://localhost:8080/zstack/v1/load-balancers/listeners/  
db191bc52926462eb21d24b30db7971f?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteLoadBalancerListenerAction action = new DeleteLoadBalancerLi
stenerAction();
action.uuid = "2e7918e14cb345888cb57769f117fb91";
action.sessionId = "efa96e940fce42c58c5e43885ce1f37f";
DeleteLoadBalancerListenerAction.Result res = action.call();
```

Python SDK

```
DeleteLoadBalancerListenerAction action = DeleteLoadBalancerLi
stenerAction()
action.uuid = "be721492004a49038940201562070e1e"
action.sessionId = "4a6baa8346204970bf3ce9397f48504a"
DeleteLoadBalancerListenerAction.Result res = action.call()
```

5.4.1.11.8 QueryLoadBalancerListener

API Request

URLs

```
GET zstack/v1/load-balancers/listeners
GET zstack/v1/load-balancers/listeners/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 6d7ca1c2f39440d5a4110962854c3234" \
-X GET http://localhost:8080/zstack/v1/load-balancers/listeners
```

```
curl \
-H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 057112ec0d5e4bcd9193b1f9499169eb" \
```

```
-X GET http://localhost:8080/zstack/v1/load-balancers/listeners/cdf776df1cb04ae6a3cf1fb1330dab2d
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryLoadBalancerListener**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "be2f6e299e364f5cb71e52f11eeee34e",
      "name": "Test-Listener",
      "loadBalancerUuid": "90a89f6ec62b4acf9ccb770b453fddc5",
      "instancePort": 80.0,
      "loadBalancerPort": 80.0,
      "protocol": "http"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
loadBalancerUuid	String	The load balancer UUID.	0.6
instancePort	Integer		0.6
loadBalancerPort	Integer		0.6
protocol	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
vmNicRefs	List	See vmNicRefs .	0.6
certificateRefs	List	See certificateRefs .	0.6

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		0.6
listenerUuid	String		0.6
vmNicUuid	String	The VM NIC UUID.	0.6

Name	Type	Description	Starting Version
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#certificateRefs

Name	Type	Description	Starting Version
id	Long		2.3
listenerUuid	String		2.3
certificateUuid	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
QueryLoadBalancerListenerAction action = new QueryLoadBalancerListenerAction();  
action.conditions = asList();  
action.sessionId = "c616bc4ee56648b6a921b2da70fe7798";  
QueryLoadBalancerListenerAction.Result res = action.call();
```

Python SDK

```
QueryLoadBalancerListenerAction action = QueryLoadBalancerListenerAction()  
action.conditions = []  
action.sessionId = "529b237f77cd4130b861ebe99a30c983"
```

```
QueryLoadBalancerListenerAction.Result res = action.call()
```

5.4.1.11.9 UpdateLoadBalancerListener

API Request

URLs

```
PUT zstack/v1/load-balancers/listeners/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateLoadBalancerListener": {
    "name": "Test-Listener",
    "description": "desc info"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateLoadBalancerListener":{"name":"Test-Listener","description":"desc info"}}' \
http://localhost:8080/zstack/v1/load-balancers/listeners/6566eed5ab7432d2956b1c093d25daab
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateLoad	Optional. The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		BalancerListener structure)			
description	String	body (contained in the updateLoadBalancerListener structure)	Optional. The detailed description of the resource.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "84735dfea01d359196587f35314a1e17",
    "name": "Test-Listener",
    "description": "desc info",
    "loadBalancerUuid": "c8f77d0df3c83e449f0d372dbe80bd09",
    "instancePort": 80.0,
    "loadBalancerPort": 80.0,
    "protocol": "http"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LoadBalancerListener Inventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
loadBalancerUuid	String	The load balancer UUID.	0.6
instancePort	Integer		0.6
loadBalancerPort	Integer		0.6
protocol	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

Name	Type	Description	Starting Version
vmNicRefs	List	See vmNicRefs .	0.6
certificateRefs	List	See certificateRefs .	0.6

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		0.6
listenerUuid	String		0.6
vmNicUuid	String	The VM NIC UUID.	0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#certificateRefs

Name	Type	Description	Starting Version
id	Long		2.3
listenerUuid	String		2.3
certificateUuid	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
UpdateLoadBalancerListenerAction action = new UpdateLoadBalancerLi
stenerAction();
action.uuid = "6566eed5ab7432d2956b1c093d25daab";
action.name = "Test-Listener";
action.description = "desc info";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateLoadBalancerListenerAction.Result res = action.call();
```

Python SDK

```
UpdateLoadBalancerListenerAction action = UpdateLoadBalancerLi
stenerAction()
```



```

action.uuid = "6566eed5ab7432d2956b1c093d25daab"
action.name = "Test-Listener"
action.description = "desc info"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateLoadBalancerListenerAction.Result res = action.call()

```

5.4.1.11.10 ChangeLoadBalancerListener

API Response

URLs

```
PUT zstack/v1/load-balancers/listeners/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "changeLoadBalancerListener": {
    "connectionIdleTimeout": 300,
    "maxConnection": 5000,
    "balancerAlgorithm": "roundrobin",
    "healthCheckTarget": "default",
    "healthyThreshold": 2,
    "unhealthyThreshold": 3,
    "healthCheckInterval": 5,
    "nbprocess": 1,
    "httpMode": "http-keep-alive",
    "sessionPersistence": "insert",
    "sessionIdleTimeout": 60
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeLoadBalancerListener":
{"connectionIdleTimeout":300,"maxConnection":5000,"balancerAlgorithm":"roundrobin",
"sessionPersistence":"insert","sessionIdleTimeout":60}}'
http://localhost:8080/zstack/v1/load-balancers/listeners/
ca4f7cea0c5a3a329742b127d7f80615/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.4.0
connectionIdleTimeout	Integer	body (contained in the changeLoadBalancerListener structure)	Optional. The connection timeout.		4.6.0
maxConnection	Integer	body (contained in the changeLoadBalancerListener structure)	Optional. The maximum number of concurrent connections.		4.6.0
balancerAlgorithm	String	body (contained in the changeLoadBalancerListener structure)	Optional. The load balancing algorithm.	• weightroundrobin • roundrobin • leastconn • source	4.6.0
healthCheckTarget	String	body (contained in the changeLoadBalancerListener structure)	Optional. The health check port.		4.6.0
healthyThreshold	Integer	body (contained in the changeLoadBalancerListener structure)	Optional. The threshold of the healthy state.		4.6.0

Name	Type	Location	Description	Optional Value	Starting Version
unhealthyThreshold	Integer	body (contained in the changeLoadBalancerListener structure)	Optional. The threshold of the unhealthy state.		4.6.0
healthCheckInterval	Integer	body (contained in the changeLoadBalancerListener structure)	Optional. The health check interval.		4.6.0
healthCheckProtocol	String	body (contained in the changeLoadBalancerListener structure)	Optional. The health check protocol.	• tcp • udp • http	3.9.0
healthCheckMethod	String	body (contained in the changeLoadBalancerListener structure)	Optional. The health check method.	• GET • HEAD	3.9.0
healthCheckURI	String	body (contained in the changeLoadBalancerListener structure)	Optional. The health check URI.		3.9.0
healthCheckHttpCode	String	body (contained in the	Optional. The expected response code		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
		changeLoadBalancerListener structure)	of the health check.		
aclStatus	String	body (contained in the changeLoadBalancerListener structure)	The access control status.	• enable • disable	3.9.0
securityPolicyType	String	body (contained in the changeLoadBalancerListener structure)	The transport layer security policy.	• tls_cipher_policy_default • tls_cipher_policy_1_0 • tls_cipher_policy_1_1 • tls_cipher_policy_1_2 • tls_cipher_policy_1_2_strict • tls_cipher_policy_1_2_strict_with_1_3	4.1.0
nbprocess	Integer	body (contained in the changeLoadBalancerListener structure)	The number of SLB processes.		4.1.0

Name	Type	Location	Description	Optional Value	Starting Version
httpMode	String	body (contained in the changeLoad BalancerListener structure)	The HTTP mode of SLB.	• http-keep-alive • http-server-close • http-tunnel • httpclose • forceclose	4.1.0
sessionPersistence	String	body (contained in the changeLoad BalancerListener structure)	The session persistence mode.	• disable • iphash • insert • rewrite	4.6.0
sessionIdleTimeout	Integer	body (contained in the changeLoad BalancerListener structure)	The session persistence time.		4.6.0
cookieName	String	body (contained in the changeLoad BalancerListener structure)	The Cookie name.		4.6.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0
httpRedirectHttps	String	body (contained in the changeLoad BalancerListener structure)	Optional. The http redirects https.	• disable • enable	4.7.21

Name	Type	Location	Description	Optional Value	Starting Version
		stener structure)			
redirectPort	Integer	body (contained in the changeLoad BalancerLi stener structure)	Optional. The redirect port.		4.7.21
statusCode	Integer	body (contained in the changeLoad BalancerLi stener structure)	Optional. The redirect status code.	• 301 • 302 • 303 • 307 • 308	4.7.21
httpVersions	List	body (contained in the changeLoad BalancerLi stener structure)	Optional. The Load Balancer frontend network HTTP protocol version.	• h1 • h2	5.0.0
tcpProxyProtocol	String	body (contained in the changeLoad BalancerLi stener structure)	Optional. The TCP Proxy Protocol agreement.	• v1 • v2 • disable	5.0.0
httpCompressAlgos	List	body (contained in the changeLoad BalancerLi stener structure)	Optional. The HTTP compression algorithm.	• deflate • raw-deflate • gzip • diasble	5.0.0

**Note:**

- When you change a parameter of a load balancer listener in ZStack Cloud, you can set the weight of the backend server by adding the **balancerWeight** option to **SystemTags**.
 - Format of the **balancerWeight** option: `balancerWeight:::{nicUuid}:::{weight}` . Here, weight is the weight of the backend server. Weight range: 0-100, integer. Default value: 100.
 - Example: `balancerWeight::{"c44007641c9040c6b2587e19b1b3e2b0"}::{100}`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "6356c8f8ae7534bab9a2175144dbc997",
    "name": "Test-Listener",
    "description": "desc info",
    "loadBalancerUuid": "4b32d1a27d8e3d77a606e5014cadd86",
    "instancePort": 80,
    "loadBalancerPort": 80,
    "protocol": "http"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
inventory	LoadBalancerListener Inventory	See inventory .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	3.4.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
name	String	The resource name.	3.4.0
description	String	The detailed description of the resource.	3.4.0
loadBalancerUuid	String	The load balancer UUID.	3.4.0
instancePort	Integer		3.4.0
loadBalancerPort	Integer		3.4.0
protocol	String		3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0
vmNicRefs	List	See vmNicRefs .	3.4.0
aclRefs	List	See aclRefs .	3.9.0

Name	Type	Description	Starting Version
certificateRefs	List	See certificateRefs .	3.4.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		3.4.0
listenerUuid	String		3.4.0
vmNicUuid	String	The VM NIC UUID.	3.4.0
status	String		3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The resource UUID.	3.9.0
listenerUuid	String	The listener UUID.	3.9.0
aclUuid	String	The UUID of the access control list.	3.9.0
type	String	The access control type.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		3.4.0
listenerUuid	String		3.4.0
certificateUuid	String		3.4.0
createDate	Timestamp	The creation date.	3.4.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.4.0

SDK Sample

Java SDK

```
ChangeLoadBalancerListenerAction action = new ChangeLoadBalancerListenerAction();
action.uuid = "ca4f7cea0c5a3a329742b127d7f80615";
action.connectionIdleTimeout = 300;
action.maxConnection = 5000;
action.balancerAlgorithm = "roundrobin";
action.healthCheckTarget = "default";
action.healthyThreshold = 2;
action.unhealthyThreshold = 3;
action.healthCheckInterval = 5;
action.nbprocess = 1;
action.httpMode = "http-keep-alive";
action.sessionPersistence = "insert";
action.sessionIdleTimeout = 60;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeLoadBalancerListenerAction.Result res = action.call();
```

Python SDK

```
ChangeLoadBalancerListenerAction action = ChangeLoadBalancerListenerAction()
action.uuid = "ca4f7cea0c5a3a329742b127d7f80615"
action.connectionIdleTimeout = 300
action.maxConnection = 5000
action.balancerAlgorithm = "roundrobin"
action.healthCheckTarget = "default"
action.healthyThreshold = 2
action.unhealthyThreshold = 3
action.healthCheckInterval = 5
action.nbprocess = 1
action.httpMode = "http-keep-alive"
action.sessionPersistence = "insert"
action.sessionIdleTimeout = 60
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeLoadBalancerListenerAction.Result res = action.call()
```

5.4.1.11.11 GetCandidateVmNicsForLoadBalancer

API Request

URLs

```
GET zstack/v1/load-balancers/listeners/{listenerUuid}/vm-instances/
candidate-nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e75a29e482104fd094dde90d69b212c6" \
-X GET http://localhost:8080/zstack/v1/load-balancers/
listeners/4fe68eaa71ec47699c19b7819bd52f80/vm-instances/candidate-nics
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
listenerUuid	String	url	The UUID of the load balancer listener.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "241c356448ea4dfab7e95dd1e52a163d",
      "vmInstanceUuid": "5d0f9bee14d94943a4e6ec34c599dc19",
      "usedIpUuid": "2974a99c5bc2481cb54759c83fea8f52",
      "l3NetworkUuid": "a3dfb2211d6e4d538a73bb3453876654",
      "ip": "192.168.1.10",
      "mac": "00:0c:29:bd:99:fc",
      "netmask": "255.255.255.0",
    }
  ]
}
```

```

"gateway": "192.168.1.1",
"deviceId": 0.0,
"createDate": "Jun 7, 2017 9:21:22 PM",
"lastOpDate": "Jun 7, 2017 9:21:22 PM"
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
vmInstanceUuid	String	The VM instance UUID.	0.6
l3NetworkUuid	String	The L3 network UUID.	0.6
ip	String		0.6
mac	String		0.6
netmask	String		0.6
gateway	String		0.6
metaData	String		0.6
deviceId	Integer		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
GetCandidateVmNicsForLoadBalancerAction action = new GetCandidateVmNicsForLoadBalancerAction();
action.listenerUuid = "939a6fd54937468b9b9c27c4d3903c6e";
action.sessionId = "af93732431cf45e7828b579fcb9e46bc";
GetCandidateVmNicsForLoadBalancerAction.Result res = action.call();
```

Python SDK

```
GetCandidateVmNicsForLoadBalancerAction action = GetCandidateVmNicsForLoadBalancerAction()
action.listenerUuid = "a100b63272ff460eb0301f5759ff2fce"
action.sessionId = "423e456aac8041aa9bfdf4ce26ab32ce"
```

```
GetCandidateVmNicsForLoadBalancerAction.Result res = action.call()
```

5.4.1.11.12 AddVmNicToLoadBalancer

API Request

URLs

```
POST zstack/v1/load-balancers/listeners/{listenerUuid}/vm-instances/nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmNicUuids": [
      "aadbfd8413545d9a1d53d8a0cfa58a8"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 47ac995879a9490f83b6b6ef79bca99f" \
-X POST -d '{"params":{"vmNicUuids":
["f141d926d13b34cc905507ce7aa9a479"]}}' \
http://localhost:8080/zstack/v1/load-balancers/
listeners/21e488793c5831a0842d72a63bcdaf04/vm-instances/nics
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmNicUuids	List	body (contained in the params structure)	The VM NIC UUIDs.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
listenerUuid	String	url	The UUID of the load balancer listener.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you add a VM NIC to a load balancer in ZStack Cloud, you can set the weight of the backend server by adding the **balancerWeight** option to **SystemTags**.
 - Format of the **balancerWeight** option: `balancerWeight::{"nicUuid"}::{"weight"}`. Here, weight is the weight of the backend server. Weight range: 0-100, integer. Default value: 100.
 - Example: `balancerWeight::{"c44007641c9040c6b2587e19b1b3e2b0"}::{"100"}`

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddVmNicToLoadBalancerAction action = new AddVmNicToLoadBalancerAction
();
action.vmNicUuids = asList("01741d3cc9d0422197b2176f3c977d52");
action.listenerUuid = "fd774b08700545ddaa5938fb2ccf4320";
action.sessionId = "ed5ea413b2354a94ac7b427528f88d26";
```

```
AddVmNicToLoadBalancerAction.Result res = action.call()
```

Python SDK

```
AddVmNicToLoadBalancerAction action = AddVmNicToLoadBalancerAction()
action.vmNicUuids = [9b08b7603be945d2928a08a0e8d1fc00]
action.listenerUuid = "874bcad239a645af8cd69ed267a48809"
action.sessionId = "a70b5f9862424ceb8ea8e2c7d679e0df"
AddVmNicToLoadBalancerAction.Result res = action.call()
```

5.4.1.11.13 RemoveVmNicFromLoadBalancer

API Request

URLs

```
DELETE/v1/load-balancers/listeners/{listenerUuid}/vm-instances/nics?
vmNicUuids={vmNicUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth a846184b54d845dbb85e50ba35364b6e" \
-X DELETE http://localhost:8080/zstack/v1/load-balancers/
listeners/9fda51c382d841e0a47a4195f8dac67b/vm-instances/nics?
vmNicUuids=9952aa24a745355b866782dd9b1c53e8
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmNicUuids	List	body	The VM NIC UUIDs.		0.6
listenerUuid	String	url	The UUID of the load balancer listener.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-Lb",
    "uuid": "40f1e1e109d34feaa119ad14b7ed5638",
    "vipUuid": "d3968f8dd2764d988f09b251617b2cf9"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LoadBalancerInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
state	String		0.6
vipUuid	String	The VIP UUID.	0.6
listeners	List	See listeners .	0.6

#listeners

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
loadBalancerUuid	String	The load balancer UUID.	0.6
instancePort	Integer		0.6
loadBalancerPort	Integer		0.6
protocol	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
vmNicRefs	List	See vmNicRefs .	0.6

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		0.6

Name	Type	Description	Starting Version
listenerUuid	String		0.6
vmNicUuid	String	The VM NIC UUID.	0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
RemoveVmNicFromLoadBalancerAction action = new RemoveVmNicFromLoadBalancerAction();
action.vmNicUuids = asList("6d6c33021c0a432c9030046c3a24be6e");
action.listenerUuid = "0a11bad9fdb84538953689a5c4430126";
action.sessionId = "867ccf6fbe934fe19e8bb5ba861de7fd";
RemoveVmNicFromLoadBalancerAction.Result res = action.call();
```

Python SDK

```
RemoveVmNicFromLoadBalancerAction action = RemoveVmNicFromLoadBalancerAction()
action.vmNicUuids = [ef9de345e68f4e6aa51164eff6ee5249]
action.listenerUuid = "04f42584e0a14afdb382e0961f057076"
action.sessionId = "46c7dabf668943faa1bb8b6be0d60397"
RemoveVmNicFromLoadBalancerAction.Result res = action.call()
```

5.4.1.11.14 UpdateLoadBalancer

API Request

URLs

```
PUT zstack/v1/load-balancers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateLoadBalancer": {
    "name": "Test-Lb",
    "description": "info"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateLoadBalancer":{"name":"Test-Lb","description":"info"}}' \
http://localhost:8080/zstack/v1/load-balancers/
a355359f46d13e5ab64d6eeff66aedbf/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateLoadBalancer structure)	Optional. The resource name.		0.6
description	String	body (contained in the updateLoadBalancer structure)	Optional. The detailed description of the resource.		0.6
resourceUuid	String	body (contained in the updateLoadBalancer structure)	Optional.		0.6
systemTags	List	body	Optional. The system tags.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UpdateLoadBalancerAction action = new UpdateLoadBalancerAction();
action.uuid = "a355359f46d13e5ab64d6eeff66aedbf";
action.name = "Test-Lb";
action.description = "info";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateLoadBalancerAction.Result res = action.call();
```

Python SDK

```
UpdateLoadBalancerAction action = UpdateLoadBalancerAction()
action.uuid = "a355359f46d13e5ab64d6eeff66aedbf"
action.name = "Test-Lb"
action.description = "info"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateLoadBalancerAction.Result res = action.call()
```

5.4.1.11.15 GetLoadBalancerOwner

API Request

URLs

```
GET zstack/v1/load-balancers/{loadBalancerUuid}/owner
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/load-balancers/01a14d335cec36a7b0c36bedc8181465/owner?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
loadBalancerUuid	String	url	The load balancer UUID.		5.1.0
systemTags	List	query	Optional. The system tags.		5.1.0
userTags	List	query	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "vpc": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.0
vpc	VpcRouterVmInventory	See vpc	5.1.0

Name	Type	Description	Starting Version
vpcHa	VpcHaGroupInventory	See vpcHa	5.1.0
slb	SlbGroupInventory	See slb	5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.1.0

#vpc

Name	Type	Description	Starting Version
publicNetworkUuid	String		5.1.0
virtualRouterVips	List		5.1.0
applianceVmType	String		5.1.0
managementNetworkUuid	String		5.1.0
defaultRouteL3NetworkUuid	String		5.1.0
status	String		5.1.0
agentPort	Integer		5.1.0
haStatus	String		5.1.0
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
zoneUuid	String	The zone uuid.	5.1.0
clusterUuid	String	The cluster uuid.	5.1.0
imageUuid	String	The image uuid.	5.1.0
hostUuid	String	The host uuid.	5.1.0
lastHostUuid	String		5.1.0
instanceOfferingUuid	String	The instance offering UUID.	5.1.0
rootVolumeUuid	String	The root volume uuid.	5.1.0

Name	Type	Description	Starting Version
platform	String		5.1.0
defaultL3NetworkUuid	String		5.1.0
type	String		5.1.0
hypervisorType	String		5.1.0
memorySize	String		5.1.0
cpuNum	Integer		5.1.0
cpuSpeed	Long		5.1.0
allocatorStrategy	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
state	String		5.1.0
dns	List	See dns	5.1.0
haRef	List	See haRef	5.1.0
vmNics	List	See vmNics	5.1.0
allVolumes	List	See allVolumes	5.1.0
allVolumes	List	See allVolumes	5.1.0

#dns

Name	Type	Description	Starting Version
id	Long		5.1.0
vpcRouterUuid	String		5.1.0
dns	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#haRef

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0

Name	Type	Description	Starting Version
vpcHaRouterUuid	String		5.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID	5.1.0
ip	String		5.1.0
mac	String		5.1.0
hypervisorType	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
metaData	String		5.1.0
ipVersion			5.1.0
driverType	String		5.1.0
internalName	String		5.1.0
deviceId			5.1.0
type	String		5.1.0
state	String	The vmNic state.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
usedIps	List	See usedIps	5.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
ipRangeUuid	String	The ip range UUID	5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0

Name	Type	Description	Starting Version
ipVersion	Integer		5.1.0
ip	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
usedFor	String		5.1.0
ipInLong	long		5.1.0
vmNicUuid	String	The vmNic UUID.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
primaryStorageUuid	String	The primary storage UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
diskOfferingUuid	String	The disk offering UUID.	5.1.0
rootImageUuid	String		5.1.0
installPath	String		5.1.0
type	String		5.1.0
format	String		5.1.0
size	Long		5.1.0
actualSize	Long		5.1.0
deviceId	Integer		5.1.0
state	String		5.1.0

Name	Type	Description	Starting Version
status	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
isShareable	Boolean		5.1.0
volumeQos	String		5.1.0
lastDetachDate	Timestamp		5.1.0
lastVmInstanceUuid	String		5.1.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
deviceId	Integer		5.1.0
isoUuid	String		5.1.0
isoInstallPath	String		5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#vpcHa

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
createDate	Timestamp	The creation date.	5.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	5.1.0
monitors	List	See monitors	5.1.0
vrRefs	List	See vrRefs	5.1.0
services	List	See services	5.1.0
usedIps	List	See usedIps	5.1.0

#monitors

Name	Type	Description	Starting Version
id	Long		5.1.0
vpcHaRouterUuid	String		5.1.0
monitorIp	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#vrRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vpcHaRouterUuid	String		5.1.0

#services

Name	Type	Description	Starting Version
id	Long	The resource UUID.	5.1.0
vpcHaRouterUuid	String		5.1.0
networkServiceName	String		5.1.0
networkServiceUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#usedIps

Name	Type	Description	Starting Version
id	Long		5.1.0
vpcHaRouterUuid	String		5.1.0
vipUuid	String	VIP UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
ip	String		5.1.0
netmask	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#slb

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
backendType	String	The backend type.	5.1.0
deployType	String	The deploy type.	5.1.0
slbOfferingUuid	String	The slb offering UUID.	5.1.0
description	String	The detailed description of the resource.	5.1.0
configVersion	Long	The config version.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
slbVms	List	See slbVms	5.1.0
lbs	List	See lbs	5.1.0
networks	List	See networks	5.1.0
monitorIps	List	See monitorIps	5.1.0

#slbVms

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0

Name	Type	Description	Starting Version
configVersion	String		5.1.0
publicNetworkUuid	String		5.1.0
virtualRouterVips	List		5.1.0
applianceVmType	String		5.1.0
managementNetworkUuid	String		5.1.0
defaultRouteL3NetworkUuid	String		5.1.0
status	String		5.1.0
agentPort	Integer		5.1.0
haStatus	String		5.1.0
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
zoneUuid	String	The zone UUID.	5.1.0
clusterUuid	String	The cluster UUID.	5.1.0
imageUuid	String	The image UUID.	5.1.0
hostUuid	String	The host UUID.	5.1.0
lastHostUuid	String		5.1.0
instanceOfferingUuid	String	The instance offering UUID.	5.1.0
rootVolumeUuid	String	The root volume UUID.	5.1.0
platform	String		5.1.0
architecture	String		5.1.0
defaultL3NetworkUuid	String		5.1.0
type	String		5.1.0
hypervisorType	String		5.1.0
memorySize	Long		5.1.0
reservedMemorySize	Long		5.1.0

Name	Type	Description	Starting Version
cpuNum	Integer		5.1.0
cpuSpeed	Long		5.1.0
allocatorStrategy	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
state	String		5.1.0
guestOsType	String		5.1.0
configTasks	List	See configTasks	5.1.0
vmNics	List	See vmNics	5.1.0
allVolumes	List	See allVolumes	5.1.0
vmCdRoms	List	See vmCdRoms	5.1.0

#configTasks

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	5.1.0
configVersion	long		5.1.0
taskName	String		5.1.0
taskData	String		5.1.0
retryNumber	long		5.1.0
lastFailedReason	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
status	SlbVmInstanceConfigTaskStatus	See status	5.1.0

#status

Name	Type	Description	Starting Version
Pending	SlbVmInstanceConfigTaskStatus		5.1.0
Starting	SlbVmInstanceConfigTaskStatus		5.1.0
Success	SlbVmInstanceConfigTaskStatus		5.1.0
Failed	SlbVmInstanceConfigTaskStatus		5.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
ip	String		5.1.0
mac	String		5.1.0
hypervisorType	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
metaData	String		5.1.0
ipVersion			5.1.0
driverType	String		5.1.0
internalName	String		5.1.0
deviceId			5.1.0
type	String		5.1.0
state	String	The vmNic state.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
usedIps	List	See usedIps	5.1.0

#lbs

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
name	String	The resource name.	5.1.0
uuid	String	The resource UUID.	5.1.0
description	String	The detailed description of the resource.	5.1.0
serverGroupUuid	String		5.1.0
state	String		5.1.0
type	String		5.1.0
vipUuid	String	VIP UUID.	5.1.0
ipv6VipUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
listeners	List	See listeners	5.1.0

#listeners

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
loadBalancerUuid	String	The load balancer UUID.	5.1.0
instancePort	Integer		5.1.0
loadBalancerPort	Integer		5.1.0
protocol	String		5.1.0
serverGroupUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

Name	Type	Description	Starting Version
vmNicRefs	List	See vmNicRefs	5.1.0
aclRefs	List	See aclRefs	5.1.0
certificateRefs	List	See certificateRefs	5.1.0
serverGroupRefs	List	See serverGroupRefs	5.1.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
vmNicUuid	String	The vmNic UUID.	5.1.0
status	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The resource UUID.	5.1.0
listenerUuid	String	The listener UUID.	5.1.0
aclUuid	String	The acl UUID.	5.1.0
type	String	The type.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
certificateUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	5.1.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
serverGroupUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#networks

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
l3NetworkCategory	String		5.1.0
l3NetworkType	String		5.1.0
type	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#monitorIps

Name	Type	Description	Starting Version
id	Long		5.1.0
slbGroupUuid	String		5.1.0
monitorIp	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```
GetLoadBalancerOwnerAction action = new GetLoadBalancerOwnerAction();
action.loadBalancerUuid = "01a14d335cec36a7b0c36bedc8181465";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetLoadBalancerOwnerAction.Result res = action.call();
```

Python SDK

```
GetLoadBalancerOwnerAction action = GetLoadBalancerOwnerAction()
action.loadBalancerUuid = "01a14d335cec36a7b0c36bedc8181465"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetLoadBalancerOwnerAction.Result res = action.call()
```

5.4.1.11.16 ProvisionSlbInstance

API Request

URLs

```
PUT zstack/v1/load-balancers/slb/instances/{uuid}/provision
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "provisionSlbInstance": {},
  "systemTags": [],
  "userTags": []
}
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"provisionSlbInstance":{}}' http://localhost:8080/zstack/
v1/load-balancers/slb/instances/0540bae0537334d7a71f13316444f53a/
provision
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
slbInstanceUuid	String	body(contained in the provisionSlbInstance structure)			5.1.0
systemTags	List	query	Optional. The system tags.		5.1.0
userTags	List	query	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "slb",
    "backendType": "vyos",
    "deployType": "NoHA",
    "description": "slb test"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventory	CertificateInventory	See inventory .	5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	5.1.0
name	String	The name of the resource.	5.1.0
backendType	String	The backend type.	5.1.0
deployType	String	The deploy type.	5.1.0
slbOfferingUuid	String	The slb offering UUID.	5.1.0
description	String	The detailed description of the resource.	5.1.0
configVersion	Long	The config version.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
slbVms	List	See slbVms .	5.1.0
lbs	List	See lbs .	5.1.0

Name	Type	Description	Starting Version
networks	List	See networks .	5.1.0
monitorIps	List	See monitorIps .	5.1.0

#slbVms

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
configVersion	String		5.1.0
publicNetworkUuid	String		5.1.0
virtualRouterVips	List		5.1.0
applianceVmType	String		5.1.0
managementNetworkUuid	String		5.1.0
defaultRouteL3NetworkUuid	String		5.1.0
status	String		5.1.0
agentPort	Integer		5.1.0
haStatus	String		5.1.0
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
zoneUuid	String	The zone UUID.	5.1.0
clusterUuid	String	The cluster UUID.	5.1.0
imageUuid	String	The image UUID.	5.1.0
hostUuid	String	The host UUID.	5.1.0
lastHostUuid	String		5.1.0
instanceOfferingUuid	String	The instance offering UUID.	5.1.0
rootVolumeUuid	String	The root volume UUID.	5.1.0
platform	String		5.1.0

Name	Type	Description	Starting Version
architecture	String		5.1.0
defaultL3NetworkUuid	String		5.1.0
type	String		5.1.0
hypervisorType	String		5.1.0
memorySize	Long		5.1.0
reservedMemorySize	Long		5.1.0
cpuNum	Integer		5.1.0
cpuSpeed	Long		5.1.0
allocatorStrategy	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
state	String		5.1.0
guestOsType	String		5.1.0
configTasks	List	See configTasks	5.1.0
vmNics	List	See vmNics	5.1.0
allVolumes	List	See allVolumes	5.1.0
vmCdRoms	List	See vmCdRoms	5.1.0

#configTasks

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	5.1.0
configVersion	long		5.1.0
taskName	String		5.1.0
taskData	String		5.1.0
retryNumber	long		5.1.0
lastFailedReason	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	5.1.0
status	SlbVmInstanceConfigTaskStatus	See status	5.1.0

#status

Name	Type	Description	Starting Version
Pending	SlbVmInstanceConfigTaskStatus		5.1.0
Starting	SlbVmInstanceConfigTaskStatus		5.1.0
Success	SlbVmInstanceConfigTaskStatus		5.1.0
Failed	SlbVmInstanceConfigTaskStatus		5.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID	5.1.0
ip	String		5.1.0
mac	String		5.1.0
hypervisorType	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
metaData	String		5.1.0
ipVersion			5.1.0
driverType	String		5.1.0
internalName	String		5.1.0
deviceId			5.1.0

Name	Type	Description	Starting Version
type	String		5.1.0
state	String	The vmNic state.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
usedIps	List	See usedIps .	5.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
ipRangeUuid	String	The ip range UUID	5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
ipVersion	Integer		5.1.0
ip	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
usedFor	String		5.1.0
ipInLong	long		5.1.0
vmNicUuid	String	The vmNic UUID.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
primaryStorageUuid	String	The primary storage UUID.	5.1.0

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	5.1.0
diskOfferingUuid	String	The disk offering UUID.	5.1.0
rootImageUuid	String		5.1.0
installPath	String		5.1.0
type	String		5.1.0
format	String		5.1.0
size	Long		5.1.0
actualSize	Long		5.1.0
deviceId	Integer		5.1.0
state	String		5.1.0
status	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
isShareable	Boolean		5.1.0
volumeQos	String		5.1.0
lastDetachDate	Timestamp		5.1.0
lastVmInstanceUuid	String		5.1.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
deviceId	Integer		5.1.0
isoUuid	String		5.1.0
isoInstallPath	String		5.1.0
name	String	The resource name.	5.1.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#lbs

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
name	String	The resource name.	5.1.0
uuid	String	The resource UUID.	5.1.0
description	String	The detailed description of the resource.	5.1.0
serverGroupUuid	String		5.1.0
state	String		5.1.0
type	String		5.1.0
vipUuid	String	VIP UUID.	5.1.0
ipv6VipUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
listeners	List	See listeners	5.1.0

#listeners

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
loadBalancerUuid	String	The load balancer UUID.	5.1.0

Name	Type	Description	Starting Version
instancePort	Integer		5.1.0
loadBalancerPort	Integer		5.1.0
protocol	String		5.1.0
serverGroupUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
vmNicRefs	List	See vmNicRefs	5.1.0
aclRefs	List	See aclRefs	5.1.0
certificateRefs	List	See certificateRefs	5.1.0
serverGroupRefs	List	See serverGroupRefs	5.1.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
vmNicUuid	String	The vmNic UUID.	5.1.0
status	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The resource UUID.	5.1.0
listenerUuid	String	The listener UUID.	5.1.0
aclUuid	String	The acl UUID.	5.1.0
type	String	The type.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
certificateUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
serverGroupUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#networks

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
I3NetworkUuid	String	The L3 network UUID.	5.1.0
I3NetworkCategory	String		5.1.0
I3NetworkType	String		5.1.0
type	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#monitorIps

Name	Type	Description	Starting Version
id	Long		5.1.0

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
monitorIp	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```
GetLoadBalancerOwnerAction action = new GetLoadBalancerOwnerAction();  
action.loadBalancerUuid = "01a14d335cec36a7b0c36bedc8181465";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
GetLoadBalancerOwnerAction.Result res = action.call();
```

Python SDK

```
GetLoadBalancerOwnerAction action = GetLoadBalancerOwnerAction()
action.loadBalancerUuid = "01a14d335cec36a7b0c36bedc8181465"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetLoadBalancerOwnerAction.Result res = action.call()
```

5.4.1.11.17 ChangeSlbGroupDeployType

API Request

URLs

```
PUT zstack/v1/load-balancers/slb/groups/{slbGroupUuid}/deployType
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeSlbGroupDeployType": {
    "deployType": "HA"
  },
  "systemTags": [],
  "userTags": []
}
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeSlbGroupDeployType":{"deployType":"HA"}}'
http://localhost:8080/zstack/v1/load-balancers/slb/
groups/5f54a03021ea30e89183306ea004a78e/deployType
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
slbGroupUuid	String	url			5.1.0
deployType	List	body(contained in the changeSlbGroupDeployType structure)			5.1.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "slb",
    "backendType": "vyos",
    "deployType": "NoHA",
    "description": "slb test"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventory	CertificateInventory	See inventory .	5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	5.1.0
name	String	The name of the resource.	5.1.0
backendType	String	The backend type.	5.1.0
deployType	String	The deployment type.	5.1.0
slbOfferingUuid	String	The slb offering UUID.	5.1.0
description	String	The detailed description of the resource.	5.1.0

Name	Type	Description	Starting Version
configVersion	Long	The config version.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
slbVms	List	See slbVms .	5.1.0
lbs	List	See lbs .	5.1.0
networks	List	See networks .	5.1.0
monitorIps	List	See monitorIps .	5.1.0

#slbVms

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
configVersion	String		5.1.0
publicNetworkUuid	String		5.1.0
virtualRouterVips	List		5.1.0
applianceVmType	String		5.1.0
managementNetworkUuid	String		5.1.0
defaultRouteL3NetworkUuid	String		5.1.0
status	String		5.1.0
agentPort	Integer		5.1.0
haStatus	String		5.1.0
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
zoneUuid	String	The zone UUID.	5.1.0
clusterUuid	String	The cluster UUID.	5.1.0
imageUuid	String	The image UUID.	5.1.0
hostUuid	String	The host UUID.	5.1.0

Name	Type	Description	Starting Version
lastHostUuid	String		5.1.0
instanceOfferingUuid	String	The instance offering UUID.	5.1.0
rootVolumeUuid	String	The root volume UUID.	5.1.0
platform	String		5.1.0
architecture	String		5.1.0
defaultL3NetworkUuid	String		5.1.0
type	String		5.1.0
hypervisorType	String		5.1.0
memorySize	Long		5.1.0
reservedMemorySize	Long		5.1.0
cpuNum	Integer		5.1.0
cpuSpeed	Long		5.1.0
allocatorStrategy	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
state	String		5.1.0
guestOsType	String		5.1.0
configTasks	List	See configTasks	5.1.0
vmNics	List	See vmNics	5.1.0
allVolumes	List	See allVolumes	5.1.0
vmCdRoms	List	See vmCdRoms	5.1.0

#configTasks

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	5.1.0
configVersion	long		5.1.0
taskName	String		5.1.0

Name	Type	Description	Starting Version
taskData	String		5.1.0
retryNumber	long		5.1.0
lastFailedReason	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
status	SlbVmInstanceConfigTaskStatus	See status	5.1.0

#status

Name	Type	Description	Starting Version
Pending	SlbVmInstanceConfigTaskStatus		5.1.0
Starting	SlbVmInstanceConfigTaskStatus		5.1.0
Success	SlbVmInstanceConfigTaskStatus		5.1.0
Failed	SlbVmInstanceConfigTaskStatus		5.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID	5.1.0
ip	String		5.1.0
mac	String		5.1.0
hypervisorType	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
metaData	String		5.1.0

Name	Type	Description	Starting Version
ipVersion			5.1.0
driverType	String		5.1.0
internalName	String		5.1.0
deviceId			5.1.0
type	String		5.1.0
state	String	The vmNic state.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
usedIps	List	See usedIps .	5.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0.0
ipRangeUuid	String	The ip range UUID	5.1.0.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
ipVersion	Integer		5.1.0
ip	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
usedFor	String		5.1.0
ipInLong	long		5.1.0
vmNicUuid	String	The vmNic UUID.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0

Name	Type	Description	Starting Version
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
primaryStorageUuid	String	The primary storage UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
diskOfferingUuid	String	The disk offering UUID.	5.1.0
rootImageUuid	String		5.1.0
installPath	String		5.1.0
type	String		5.1.0
format	String		5.1.0
size	Long		5.1.0
actualSize	Long		5.1.0
deviceId	Integer		5.1.0
state	String		5.1.0
status	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
isShareable	Boolean		5.1.0
volumeQos	String		5.1.0
lastDetachDate	Timestamp		5.1.0
lastVmInstanceUuid	String		5.1.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0

Name	Type	Description	Starting Version
deviceId	Integer		5.1.0
isoUuid	String		5.1.0
isoInstallPath	String		5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#lbs

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
name	String	The resource name.	5.1.0
uuid	String	The resource UUID.	5.1.0
description	String	The detailed description of the resource.	5.1.0
serverGroupUuid	String		5.1.0
state	String		5.1.0
type	String		5.1.0
vipUuid	String	VIP UUID.	5.1.0
ipv6VipUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
listeners	List	See listeners	5.1.0

#listeners

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	5.1.0
loadBalancerUuid	String	The load balancer UUID.	5.1.0
instancePort	Integer		5.1.0
loadBalancerPort	Integer		5.1.0
protocol	String		5.1.0
serverGroupUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
vmNicRefs	List	See vmNicRefs	5.1.0
aclRefs	List	See aclRefs	5.1.0
certificateRefs	List	See certificateRefs	5.1.0
serverGroupRefs	List	See serverGroupRefs	5.1.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
vmNicUuid	String	The vmNic UUID.	5.1.0
status	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The resource UUID.	5.1.0
listenerUuid	String	The listener UUID.	5.1.0
aclUuid	String	The acl UUID.	5.1.0

Name	Type	Description	Starting Version
type	String	The type.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
certificateUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
serverGroupUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#networks

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
I3NetworkUuid	String	The L3 network UUID.	5.1.0
I3NetworkCategory	String		5.1.0
I3NetworkType	String		5.1.0
type	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	5.1.0

#monitorIps

Name	Type	Description	Starting Version
id	Long		5.1.0
slbGroupUuid	String		5.1.0
monitorIp	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```
ChangeSlbGroupDeployTypeAction action = new ChangeSlbGroupDeployTypeAction();
action.slbGroupUuid = "5f54a03021ea30e89183306ea004a78e";
action.deployType = "HA";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeSlbGroupDeployTypeAction.Result res = action.call();
```

Python SDK

```
ChangeSlbGroupDeployTypeAction action = ChangeSlbGroupDeployTypeAction()
action.slbGroupUuid = "5f54a03021ea30e89183306ea004a78e"
action.deployType = "HA"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeSlbGroupDeployTypeAction.Result res = action.call()
```

5.4.1.11.18 ChangeSlbGroupMonitorIps

API Request

URLs

```
PUT zstack/v1/load-balancers/slb/groups/{slbGroupUuid}/monitorIps
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeSlbGroupMonitorIps": {
    "monitorIps": []
  },
  "systemTags": [],
  "userTags": []
}
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeSlbGroupMonitorIps":{"monitorIps":[]}}' http://localhost:8080/zstack/v1/load-balancers/slb/groups/6d07e175d34d3b14822166b865136ec8/monitorIps
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
slbGroupUuid	String	url			5.1.0
deployType	List	body(contained in the changeSlbGroupDeployType structure)			5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "slb",
    "backendType": "vyos",
    "deployType": "NoHA",
    "description": "slb test"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventory	CertificateInventory	See inventory .	5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	5.1.0
name	String	The name of the resource.	5.1.0

Name	Type	Description	Starting Version
backendType	String	The backend type.	5.1.0
deployType	String	The deploy type.	5.1.0
slbOfferingUuid	String	The slb offering UUID.	
description	String	The detailed description of the resource.	5.1.0
configVersion	Long	The config version.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
slbVms	List	See slbVms .	
lbs	List	See lbs .	
networks	List	See networks .	
monitorIps	List	See monitorIps .	

#slbVms

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
configVersion	String		5.1.0
publicNetworkUuid	String		5.1.0
virtualRouterVips	List		5.1.0
applianceVmType	String		5.1.0
managementNetworkUuid	String		5.1.0
defaultRouteL3NetworkUuid	String		5.1.0
status	String		5.1.0
agentPort	Integer		5.1.0
haStatus	String		5.1.0
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	5.1.0
zoneUuid	String	The zone UUID.	5.1.0
clusterUuid	String	The cluster UUID.	5.1.0
imageUuid	String	The image UUID.	5.1.0
hostUuid	String	The host UUID.	5.1.0
lastHostUuid	String		5.1.0
instanceOfferingUuid	String	The instance offering UUID.	5.1.0
rootVolumeUuid	String	The root volume UUID.	5.1.0
platform	String		5.1.0
architecture	String		5.1.0
defaultL3NetworkUuid	String		5.1.0
type	String		5.1.0
hypervisorType	String		5.1.0
memorySize	Long		5.1.0
reservedMemorySize	Long		5.1.0
cpuNum	Integer		5.1.0
cpuSpeed	Long		5.1.0
allocatorStrategy	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
state	String		5.1.0
guestOsType	String		5.1.0
configTasks	List	See configTasks	5.1.0
vmNics	List	See vmNics	5.1.0
allVolumes	List	See allVolumes	5.1.0
vmCdRoms	List	See vmCdRoms	5.1.0

#configTasks

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	5.1.0
configVersion	long		5.1.0
taskName	String		5.1.0
taskData	String		5.1.0
retryNumber	long		5.1.0
lastFailedReason	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
status	SlbVmInstanceConfigTaskStatus	See status	5.1.0

#status

Name	Type	Description	Starting Version
Pending	SlbVmInstanceConfigTaskStatus		5.1.0
Starting	SlbVmInstanceConfigTaskStatus		5.1.0
Success	SlbVmInstanceConfigTaskStatus		5.1.0
Failed	SlbVmInstanceConfigTaskStatus		5.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID	5.1.0
ip	String		5.1.0

Name	Type	Description	Starting Version
mac	String		5.1.0
hypervisorType	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
metaData	String		5.1.0
ipVersion			5.1.0
driverType	String		5.1.0
internalName	String		5.1.0
deviceId			5.1.0
type	String		5.1.0
state	String	The vmNic state.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
usedIps	List	See usedIps .	5.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
ipRangeUuid	String	The ip range UUID	5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
ipVersion	Integer		5.1.0
ip	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
usedFor	String		5.1.0
ipInLong	long		5.1.0
vmNicUuid	String	The vmNic UUID.	5.1.0
createDate	Timestamp	The creation date.	5.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	5.1.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
primaryStorageUuid	String	The primary storage UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
diskOfferingUuid	String	The disk offering UUID.	5.1.0
rootImageUuid	String		5.1.0
installPath	String		5.1.0
type	String		5.1.0
format	String		5.1.0
size	Long		5.1.0
actualSize	Long		5.1.0
deviceId	Integer		5.1.0
state	String		5.1.0
status	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
isShareable	Boolean		5.1.0
volumeQos	String		5.1.0
lastDetachDate	Timestamp		5.1.0
lastVmInstanceUuid	String		5.1.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
deviceId	Integer		5.1.0
isoUuid	String		5.1.0
isoInstallPath	String		5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#lbs

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
name	String	The resource name.	5.1.0
uuid	String	The resource UUID.	5.1.0
description	String	The detailed description of the resource.	5.1.0
serverGroupUuid	String		5.1.0
state	String		5.1.0
type	String		5.1.0
vipUuid	String	VIP UUID.	5.1.0
ipv6VipUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
listeners	List	See listeners	5.1.0

#listeners

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
loadBalancerUuid	String	The load balancer UUID.	5.1.0
instancePort	Integer		5.1.0
loadBalancerPort	Integer		5.1.0
protocol	String		5.1.0
serverGroupUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
vmNicRefs	List	See vmNicRefs	5.1.0
aclRefs	List	See aclRefs	5.1.0
certificateRefs	List	See certificateRefs	5.1.0
serverGroupRefs	List	See serverGroupRefs	4.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
vmNicUuid	String	The vmNic UUID.	5.1.0
status	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The resource UUID.	5.1.0
listenerUuid	String	The listener UUID.	5.1.0
aclUuid	String	The acl UUID.	5.1.0
type	String	The type.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
certificateUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	Long		5.1.0
listenerUuid	String		5.1.0
serverGroupUuid	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#networks

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
l3NetworkCategory	String		5.1.0

Name	Type	Description	Starting Version
l3NetworkType	String		5.1.0
type	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#monitorIps

Name	Type	Description	Starting Version
id	Long		5.1.0
slbGroupUuid	String		5.1.0
monitorIp	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current	5.1.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

SDK Sample

Java SDK

```
ChangeSlbGroupMonitorIpsAction action = new ChangeSlbGroupMonitorIpsAction();
action.slbgGroupUuid = "6d07e175d34d3b14822166b865136ec8";
action.monitorIps = new ArrayList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeSlbGroupMonitorIpsAction.Result res = action.call();
```

Python SDK

```
ChangeSlbGroupMonitorIpsAction action = ChangeSlbGroupMonitorIpsAction()
action.slbgGroupUuid = "6d07e175d34d3b14822166b865136ec8"
action.monitorIps = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeSlbGroupMonitorIpsAction.Result res = action.call()
```

5.4.1.11.19 QuerySlbVmInstance

API Request

URLs

```
GET zstack/v1/load-balancers/slb/instances
GET zstack/v1/load-balancers/slb/instances/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/load-balancers/slb/instances?
q=uuid=76efa7d6d9033af6b8b85c0d4050f725
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/load-balancers/slb/instances/
bebda93d772c3ea8a16242cf8fb85e64
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySlbVmInstance`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "slbGroupUuid": "0643d154403b3f668cd86e632b839751",
      "configTasks": [
        {
          "vmInstanceUuid": "b44f739da7d03d1e8d746992bf1d0511",
          "configVersion": 101,
          "taskName": "taskA",
          "taskData": "Data",
          "retryNumber": 2,
          "lastFailedReason": "failed",
          "status": "Failed"
        }
      ],
      "configVersion": 100,
      "uuid": "b44f739da7d03d1e8d746992bf1d0511",
      "name": "SLB",
      "description": "SLB Instance VM",
      "zoneUuid": "1ddfa48e92d432219525e71710872fed",
      "clusterUuid": "fe266a478f7a3ee791d60ec8bf515107",
      "imageUuid": "7b76ac4b5d5338f7aa534dd6d2f651de",
      "hostUuid": "d3d2f05490d93a548da3975b9aef2b02",
      "lastHostUuid": "458e298932f13bf8970a49ab37eef4b2",
      "instanceOfferingUuid": "2cb51561bace3d9cbe0e1537ed5c8d87",
      "rootVolumeUuid": "a258b546210239239b6b007257b534dd",
      "platform": "Linux",
      "defaultL3NetworkUuid": "75d6d9c236a63240ba3de52babcdadb4e",
      "type": "ApplianceVm",
      "hypervisorType": "KVM",
      "memorySize": 8589934592,
      "cpuNum": 1,
      "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "state": "Running",
      "vmNics": [
        {
          "uuid": "e2ddf013a62d385f9ae7b3da274da83b",
          "vmInstanceUuid": "b44f739da7d03d1e8d746992bf1d0511",
          "usedIpUuid": "f190b722694839e2bbd1fa6f2cb1ded5",
          "l3NetworkUuid": "40ec403203343b738576fbf4b575bdec",
          "ip": "192.168.1.10",
          "mac": "00:0c:29:bd:99:fc",
          "hypervisorType": "KVM",
          "netmask": "255.255.255.0",
          "gateway": "192.168.1.1",
          "deviceId": 0,
          "state": "enable",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ]
    }
  ],
}
```

```

    "allVolumes": [
      {
        "uuid": "c5055efcc2323281add5f09787f73d15",
        "name": "Root-Volume-For-VM-b44f739da7d03d1e8d746992bf1d0511",
        "primaryStorageUuid": "9e0252991dcc3ae09e10b69aad9743be",
        "vmInstanceUuid": "b44f739da7d03d1e8d746992bf1d0511",
        "diskOfferingUuid": "17b973054ad83a9a99c2defce44731d2",
        "rootImageUuid": "7b76ac4b5d5338f7aa534dd6d2f651de",
        "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-fcdefa0ed8dc3cabbca631c8205d57cc/c63e2314a73f3182af05c14e7f3155c9.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 107374182400,
        "actualSize": 21474836480,
        "deviceId": 0,
        "state": "Enabled",
        "status": "Ready",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}

```

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventories	List	See	5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.0

#inventories

Name	Type	Description	Starting Version
slbGroupUuid	String		5.1.0
configVersion	Long		5.1.0
publicNetworkUuid	String		5.1.0
virtualRouterVips	List		5.1.0
applianceVmType	String		5.1.0
managementNetworkUuid	String		5.1.0

Name	Type	Description	Starting Version
defaultRouteL3NetworkUuid	String		5.1.0
status	String		5.1.0
agentPort	Integer		5.1.0
haStatus	String		5.1.0
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
zoneUuid	String	The zone UUID.	5.1.0
clusterUuid	String	The cluster UUID.	5.1.0
imageUuid	String	The image UUID.	5.1.0
hostUuid	String	The host UUID.	5.1.0
lastHostUuid	String		5.1.0
instanceOfferingUuid	String	The instance offering UUID.	5.1.0
rootVolumeUuid	String	The root volume UUID.	5.1.0
platform	String		5.1.0
architecture	String		5.1.0
defaultL3NetworkUuid	String		5.1.0
type	String		5.1.0
hypervisorType	String		5.1.0
memorySize	Long		5.1.0
reservedMemorySize	Long		5.1.0
cpuNum	Integer		5.1.0
cpuSpeed			5.1.0
allocatorStrategy	Long		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

Name	Type	Description	Starting Version
state	String		5.1.0
guestOsType	String		5.1.0
configTasks	List	See configTasks .	5.1.0
vmNics	List	See vmNics .	5.1.0
allVolumes	List	See allVolumes .	5.1.0
vmCdRoms	List	See vmCdRoms .	5.1.0

#configTasks

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	5.1.0
configVersion	long		5.1.0
taskName	String		5.1.0
taskData	String		5.1.0
retryNumber	long		5.1.0
lastFailedReason	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
status	SlbVmInstanceConfigTaskStatus	See status	5.1.0

#status

Name	Type	Description	Starting Version
Pending	SlbVmInstanceConfigTaskStatus		5.1.0
Starting	SlbVmInstanceConfigTaskStatus		5.1.0
Success	SlbVmInstanceConfigTaskStatus		5.1.0
Failed	SlbVmInstanceConfigTaskStatus		5.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
l3NetworkUuid	String	The L3 network UUID	5.1.0
ip	String		5.1.0
mac	String		5.1.0
hypervisorType	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
metaData	String		5.1.0
ipVersion			5.1.0
driverType	String		5.1.0
internalName	String		5.1.0
deviceId			5.1.0
type	String		5.1.0
state	String	The vmNic state.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
usedIps	List	See usedIps .	5.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
ipRangeUuid	String	The ip range UUID	5.1.0
l3NetworkUuid	String	The L3 network UUID.	5.1.0
ipVersion	Integer		5.1.0
ip	String		5.1.0
netmask	String		5.1.0

Name	Type	Description	Starting Version
gateway	String		5.1.0
usedFor	String		5.1.0
ipInLong	long		5.1.0
vmNicUuid	String	The vmNic UUID.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
primaryStorageUuid	String	The primary storage UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
diskOfferingUuid	String	The disk offering UUID.	5.1.0
rootImageUuid	String		5.1.0
installPath	String		5.1.0
type	String		5.1.0
format	String		5.1.0
size	Long		5.1.0
actualSize	Long		5.1.0
deviceId	Integer		5.1.0
state	String		5.1.0
status	String		5.1.0
createDate	Timestamp	The creation date.	5.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	5.1.0
isShareable	Boolean		5.1.0
volumeQos	String		5.1.0
lastDetachDate	Timestamp		5.1.0
lastVmInstanceUuid	String		5.1.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
vmInstanceUuid	String	The VM instance UUID.	5.1.0
deviceId	Integer		5.1.0
isoUuid	String		5.1.0
isoInstallPath	String		5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
createDate	Timestamp	The creation date.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0

Name	Type	Description	Starting Version
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```
QuerySlbVmInstanceAction action = new QuerySlbVmInstanceAction();
action.conditions = asList("uuid=f6fba7cb05293adc9afb013d01b7ad5b");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySlbVmInstanceAction.Result res = action.call();
```

Python SDK

```
QuerySlbVmInstanceAction action = QuerySlbVmInstanceAction()
action.conditions = ["uuid=2c88152e016f37838064f644e2225968"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySlbVmInstanceAction.Result res = action.call()
```

5.4.1.11.20 CreateCertificate

API Request

URLs

```
POST zstack/v1/certificates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "www.domain.com",
```

```

"certificate": "-----BEGIN PRIVATE KEY-----MIIEvQIBADANBgkqhkiG
9w0BAQEFAASCBKcwggSjAgEAAoIBAQDIpe/zscx2QwunyYPHusMct/5n4LWSi4pz
fsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9S0RMncqUjTxPUjLZKoN0w+
nU2AsxXhbV8AiS3UoWJcZUtlfLAjeUKajy1F5hyxHsKJlM0ozAcX0bunzuaWkKvjchqMSX
54+E02h7JNtzv9lagr0MSB4hkraanlpQWr4mv3N7D8kBz9wplMeJXeo4awls3ky
giN63TnIQ5hzF7jNxR3uSFYQtUfLnzKcj4aIma62tDf6pkpQ3S+SprGs/OkGvEldNus
6FXT07ixFy0RM27ka3Rmv6SYQQquV+950xfb42n9s2UE0pAgMBAAECggEAd0Ixye308ifN
gLAE1K0MBcyouMNWCMFJzHX34n09vkILdKk3imWBWUgxrUn713Cez0jZJn6PjuEyujs7Um
pUA22Cyp27PqbHkAvNM02SUXx1bB19UIapSGaM7gvmTvkoAxt4+DVD9NL4wkt
gp22HYnNImEgs+AaxLB9sokEvC6mxP23pv7LfnK4EDH2b+1pbE++VheVIBZxK+
mTdxPRgwQBjv2VtK0LRDndnRU8gmB500KBnep3sCsAKmWtAJf37L9lwgc9QC7LysnuMsZ1
0KuoeQndVetsAazBARHhUdLd1fWQqbLkLc6NtcLodoS+umuvHArKx6LungK4cmNy
GZQKBgQD8abrSQX0JuNNx7N+EJjn3hjc3F0rSagGY7LCiQ/qEP8EkwsLxotRHkKqKqz7
8oq4RApT/fBV17HqPe67IJ5xhwYLIUASzs8WvigRV6ITSZv92G8i0SdW7ALZzF4q+
tc2RgPvW/pZPaHoxfNU6TC/QW35qAsLPwab7Tel9cGb030wKBgQDLf+OLfUfhJUq8
mZ3L8U1p1QLpSJNx282hGVg+OXwpuQQZ5qrxkhzF/xBYCjmmQMEfxLtrJxYTP
gkHcTp9ozl4ICXdmHpL8V+E5PBQjBcBNcB8kjXngCc0wiKsLJIUWmKoVROq7d
AaUz3INzkp0tufj8aa7DzC+1C4+j5nvFlkwKBGCTAKCLQyke1F2Qw/uI4xpvZeNS
WQRJ0PhjLjVoy15jFx5NJfKcE9C9gb8q68LQ1NM5MwR3xpAi3D1j3rDZw5UgHqLes7C0bi
v+xL7TufMAeBV00iEtcucFVYswVE0sH0AeLYzCCJSL069U457XV0bbS26X9U00
ZBeW4nYXFYZ1tAoGBAJgnShIcn0bZRDUZwqMfC5uqud+E9UF3cBsY4SK9RnnHrSp
UjtHKRps/5498LaURMZS40roluFqW0n1vCqWvqi0IHee+vwoTMjEiIBCKsEMapDYz
VYVpzNl07Hk0Pm7V+Ey/7WXJpL2RngtU1fRcpYjGwMuXY5mF/GM8FxC055bjAoGATYqGL
qNhbZ0SVhgSs/2vHMLJYaHwJLLYPS+90Wk5JycvYSbfa9/rc2jblieuE5MseHQFqU0
BRVeHqY4dqpQpe045fC5h9vqC4Lp2LaXbwtxv5Z0cb/o8ecXuSxFe/G2PQvhK44I
QFb9RSLuQBUMp/gX6UNVS0dP+7dDpim5n2zY\003d-----END PRIVATE KEY
-----BEGIN CERTIFICATE-----MIID4zCCAsugAwIBAgIJAjWhNGBNfA
tTMA0GCSqGSIb3DQEBCwUAMIGHMQswCQYDVQQGEWJDTjELMAKGA1UECAwCU0gxGzAJBgNV
BACMAInIMQ8wDQYDVQQKDAZaU1RBQ0sxDDAKBgNVBAsMA0RldjEZMBcGA1UEAwwQc2hpeG
luLnnpzdGFjay5pbzEkMCIGCSqGSIb3DQEJARYVc2hpeGluLnJlYW5AenN0YWNRlmlvMB4X
DTE4MDMyMDA0NDYwM1oXDTE5MDMyMDA0NDYwM1owGYYcxGzAJBgNVBAYTAkNOMQswCQYDVQ
QIDAJTSELMakGA1UEBwwCU0gxGzANBgNVBAoMBLpTVEFDSzEMMAoGA1UECwwDRGV2MRkw
FwYDVQQDDDBBZaG14aw4uenN0YWNRlmlvMSQwIgwYJKoZIhvcNAQkBFhVzaG14aw4ucnVhbk
B6c3RhY2suaW8wggeiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQDIpe/
zscx2QwunyYPHusMct/5n4LWSi4pzfsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9
S0RMncqUjTxPUjLZKoN0w+nU2AsxXhbV8AiS3UoWJcZUtlfLAjeUKajy1F5hyx
HsKJlM0ozAcX0bunzuaWkKvjchqMSX54+E02h7JNtzv9lagr0MSB4hkraanlpQW
r4mv3N7D8kBz9wplMeJXeo4awls3kygiN63TnIQ5hzF7jNxR3uSFYQtUfLnzKcj4aIma62
tDf6pkpQ3S+SprGs/OkGvEldNus6FXT07ixFy0RM27ka3Rmv6SYQQquV+950xfb42n9
s2UE0pAgMBAAEgUDBOMB0GA1UdDgQWB8PjTZJmWSDA9GPTJ7K5wWTPVsjaFbgNVHSME
GDAWgBTg8PjTZJmWSDA9GPTJ7K5wWTPVsjaMBGnVHRMEBTADAQH/MA0GCSqGSI
b3DQEBCwUAA4IBAQDH5P0u4FmmAsHXe49gLY6Kdcti2FTBYse7ru05V4URGSu5Dab25mA
Tqp7z7WCiv9pTdlC0KoJieML7rpLiLskBBLPToU8bUigX96q5dmMtdbLSmGeYfhHj9tHeY
uGv0U2eRcN2Jo6xlHrL6X3Raz0/h/9mCW6sLAGGaJ9MyQAiqRfYa0+ToBqdbHmBE
wmuea007wFy9UbU7F/CdeEzblKdWRMKQgf5yxA6pXYghjPwWNAqElxnnXskBmjMhYaDf
GCQuRK5Ma362ax0i8UGqYfMnflBgy1qX8+f7VjyWokK4tcjep72TTYkIVBGBwBMq
k2U2v5qslBRmM5+pmAESJq-----END CERTIFICATE-----"
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"www.domain.com","certificate":"-----
BEGIN PRIVATE KEY-----
MIIEvQIBADANBgkqhkiG9w0BAQEFAASCBKcwggSjAgEAAoIBAQDIpe/
zscx2QwunyYPHusMct/5n4LWSi4pzfsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9S0RMncqUjTxP
+nU2AsxXhbV8AiS3UoWJcZUtlfLAjeUKajy1F5hyxHsKJlm0ozAcX0bunzuaWkKvjchqMSX54+E02h7JM
+SprGs/OkGvEldNus6FXT07ixFy0RM27ka3Rmv6SYQQquV
+950xfb42n9s2UE0pAgMBAECggEAd0Ixye308ifNgLAE1K0MBcyoMNNWCMFJzHX34n09vkILdKk3imWE
+AaxLB9sokEvC6mxP23pv7LfnK4EDH2b+1pbE++VheVIBZxK
+mTdxPRgwQBjv2VtK0LRDndnRU8gmB500KBnep3sCsAKmWtAJf37L9lWgc9QC7LysnuMsZ10KuoeQndVe
+umuvHARkx6LungK4cmNyGZQKBgQD8abrSQX0JuNNx7N
+EJjn3hj3Cf0rSAGGY7LCiQ/qEP8EkWslxotRHKqKqz78oq4RAPt/
fBV17HqPe67IJ5xhwYLIUASzs8WwigRV6ITSZv92G8i0SdW7ALZzF4q
+tc2RgPvW/pZPaHoxfNU6TC/QW35qAsLPwab7Tel9cGb030wKBgQDLf
+OLfUfhJUq8mZ3L8U1p1QLpSJNx282hGVg+OXwpuQQZ5qrxkhzF/
xBYCjmmQMefxLtrJxYTPgkHcTp9ozl4ICXdmHpL8V
+E5PBQjbcBNCbE8kjXngCc0wiKsLJIUwmKovRoq7dAaUz3INzkp0tufj8aa7DzC
+1C4+j5nvFlwKBgCTAKCLQyke1F2Qw/
uI4xpvZeNSWQRJOpHjLjVoy15jF5NjKcE9C9gb8q68LQ1NM5MwR3xpAi3D1j3rDZw5UgHqLes7C0biv
+xl7TufMAeBV00iEtcucFVYswVE0sh0AeLYzCCJSL069U457XV0bbS26X9U00ZBeW4nYXFYZ1tAoGBAJg
+E9UF3cBsY4SK9RnnHrSpUjtHKRps/5498LaURMZS40roluFqw0n1vCqWvqi0IHee
+vwoTMjEiIBCKsEMapDYzVYVpzNl07HkOPm7V+Ey/7WXJpl2RngtU1fRcpYjGwMuXY5mF/
GM8FxC055bjAoGATYqGLqNhZ0SVhgSs/2vHMLJYaHwJLLYPS+90Wk5JycvYSbfa9/
rc2jblieuE5MseHQFqU0BRVeHqY4dqpQpe045fC5h9vqC4Lp2LaXbwtXv5Z0cb/
o8ecXuSxFe/G2PQvhK44IQFb9RSLuQBUMP/gX6UNVS0dP+7dDpim5n2zY=-----
END PRIVATE KEY-----BEGIN CERTIFICATE-----
MIID4zCCAsugAwIBAgIJAjWhNGBNfAtTMA0GCSqGSIb3DQEBCwUAMIGHMQswCQYDVQQGEwJDTjELMAKGA
zscx2QwunyYPHusMct/5n4LWSi4pzfsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9S0RMncqUjTxP
+nU2AsxXhbV8AiS3UoWJcZUtlfLAjeUKajy1F5hyxHsKJlm0ozAcX0bunzuaWkKvjchqMSX54+E02h7JM
+SprGs/OkGvEldNus6FXT07ixFy0RM27ka3Rmv6SYQQquV
+950xfb42n9s2UE0pAgMBAAGjUDBOMB0GA1UdDgQWBBTg8PjTZJmWSDA9GPTJ7K5wWTPVsjaFbgNVHSM
MA0GCSqGSIb3DQEBCwUAA4IBAQDH5POu4FmmAsHXe49g6Y6Kdcti2FTBYse7ru05V4URGsU5Dab25mAT
h/9mCW6sLAGgaJ9MyQAiQrfYa0+ToBqdbHmBEwmuea007wFy9UbU7F/
CdeEzblKdWRMKQgf5yxApXYghjPwWNAqElxnnXskBmjMhYaDfGCQuRK5Ma362ax0i8UGqYfMnflBgy1c
END CERTIFICATE-----}}' http://localhost:8080/zstack/v1/certificates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.3.2
certificate	String	body (contained in the params structure)			2.3.2
description	String	body (contained in	Optional. The detailed		2.3.2

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	description of the resource.		
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.3.2
systemTags	List	body	Optional. The system tags.		2.3.2
userTags	List	body	Optional. The user tags.		2.3.2

API Response

Sample Response

```
{
  "inventory": {
    "name": "www.domain.com",
    "certificate": "-----BEGIN PRIVATE KEY-----MIIEvQIBADANBgkqhkiG
9w0BAQEFAASCBKcwggSjAgEAAoIBAQDIpe/zscx2QwunyYPHusMct/5n4LWSi4pz
fsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9S0RMncqUjTxPUjLZKoN0w+
nU2AsxXhbV8AiS3UoWJcZUtlfLAjeUKajy1F5hyxHsKJlm0ozAcX0bunzuawKkvjchqMSX
54+E02h7JNtztv9lagr0MsB4hkraanlpQWr4mv3N7D8kBz9wplMeJXeo4awls3ky
giN63TnIQ5hzF7jNxr3uSFYQtUfLnzKcj4aIma62tDf6pkpQ3S+SprGs/0kGvEldNus
6FXT07ixFyORM27ka3Rmv6SYQQquV+950xfb42n9s2UE0pAgMBAAECggEAd0Ixye308ifN
gLAe1K0MBcyouMNWCMFJzHX34n09vkILdKk3imWBWUgxrUn713Cez0jZJn6PjuEyujs7Um
pUA22Cyp27PqbHkAvNM02SUxx1bB19UIapSGaM7gvmTvkoAxt4+DVD9NL4wkt
gp22HYnNImEgs+AaxLB9sokEvC6mxP23pv7LfnK4EDH2b+1pbE++VheVIBZxK+
mTdxPRgwQBjv2VtK0LRDndnRU8gmB500KBnep3sCsAKmWtAJf37L9lwgc9QC7LysnuMsZ1
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GZQKBgQD8abrSQX0JuNNx7N+EJjn3hjc3F0rSagGY7LCiQ/qEP8EkwsLxotRHKqKqz7
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gkHcTp9ozl4ICXdmHpL8V+E5PBQjbCBNCbE8kXngCc0wiKSLJIUwmKoVROp7d
AaUz3INzKp0tufj8aa7DzC+1C4+j5nvFlkwKBgCTAKCLQyke1F2Qw/uI4xpvZeNS
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v+xl7TufMAeBV00iEtcucFVYswVE0sH0AeLYzCCJSL069U457XV0bbS26X9U00
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UjtHKRps/5498LaURMZS40roluFqw0n1vCqWvqi0IHee+vwoTMjEiIBCKsEMapDYz
VYVpzNl07Hk0Pm7V+Ey/7WXJpL2RngtU1fRcpYjGwMuXY5mF/GM8FxC055bjAoGATYqGL
qNhBZ0SVhgSs/2vHMLJYaHwJLLYPS+90Wk5JycvYSbfa9/rc2jblieuE5MseHQFqU0
BRVeHqY4dqpQpe045fC5h9vqC4Lp2LaXbwtxv5Z0cb/o8ecXuSXeF/G2PQvhK44I
QFb9RSLuQBUMp/gX6UNVS0dP+7dDpim5n2zY\u003d-----END PRIVATE KEY
-----BEGIN CERTIFICATE-----MIID4zCCAsugAwIBAgIJAJWhNGBNfA
tTMA0GCSqGSIb3DQEBCwUAMIGHMQswCQYDVQQGEWJDTjELMAKGA1UECAwCZAJBgNV
BACMAINIMQ8wDQYDVQQKDAZaU1RBQ0sxDDAKBgNVBAsMA0RldjEZMBcGA1UEAwwQc2hpeG
luLnZpdGFjay5pbzEkMCIGCSqGSIb3DQEJARYVc2hpeGluLnZpdGFjay5pbzEkMCIGCSqG
SIb3DQEJARYVc2hpeGluLnZpdGFjay5pbzEkMCIGCSqGSIb3DQEJARYVc2hpeGluLnZpdGF
DTE4MDMyMDA0NDYwM1oXDTE5MDMyMDA0NDYwM1owYcxzCzAJBgNVBAYTAkNOMQswCQYDVQ
QIDAJTSDELMAKGA1UEBwwCU0gxZDZANBgNVBAoMBlpTVEFDSzEMMAoGA1UECwwDRGV2MRkw
FwYDVQQDDDBBZaG14aw4uenN0YWNrLmLvMSQwIgYJKoZIhvcNAQkBFhVzaG14aw4ucnVhbK
```

```

B6c3RhY2suaW8wggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQDIpe/
zscx2QwunyYPHusMct/5n4LWSi4pzfsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9
S0RMncqUjTxPUjLzKoN0w+nU2AsxXhbV8AiS3UoWJcZUtlfLAjeUKajy1F5hyx
HsKJlM0ozAcX0bunzuawKkvjchqMSX54+E02h7JNtzv9lagr0MsB4hkraanlpQW
r4mv3N7D8kBz9wplMeJXeo4awls3kygiN63TnIQ5hzF7jNxr3uSFYQtUfLnzKcj4aIma62
tDf6pkpQ3S+SprGs/OkGvEldNus6FXT07ixFyORM27ka3Rmv6SYQQquV+950xfb42n9
s2UE0pAgMBAAGjUDBOMB0GA1UdDgQWBBTg8PjTZJmWSDA9GPTJ7K5wWTPVsjaFbgNVHSME
GDAWgBTg8PjTZJmWSDA9GPTJ7K5wWTPVsjaMBgNVHRMEBTADAQH/MA0GCSqGSI
b3DQEBCwUAA4IBAQDH5P0u4FmmASHXe49gL6Y6Kdcti2FTBYse7ru05V4URGsU5Dab25mA
Tqp7z7WCiv9pTdlC0KoJieML7rpLiLskBBLpToU8bUigX96q5dmMtDbLSmGeYfhHj9tHeY
uGv0U2eRcN2Jo6xlHrL6X3Raz0/h/9mCW6sLAGgaJ9MyQAiqRfYa0+ToBqdbHmBE
wmuea007wFy9Ubu7F/CdeEzblKdWRMKQgf5yxA6pXYghjPwWNAqELxnnXskBmjMhYaDf
GCQuRK5Ma362ax0i8UGqYfMnflBgylqX8+f7VjyWokK4tcjep72TTYKIVBgbwBMq
k2U2v5qslBRmM5+pmAESJq-----END CERTIFICATE-----"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3.2
inventory	CertificateInventory	See inventory .	2.3.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3.2
description	String	The detailed description of the error.	2.3.2
details	String	The details about the error.	2.3.2
elaboration	String	The reserved field. Default value: null.	2.3.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3.2
cause	ErrorCode	The root error, which is the associated root cause of the current	2.3.2

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.2
uuid	String	The resource UUID.	2.3.2
certificate	String	The certificate.	2.3.2
description	String	The detailed description of the resource.	2.3.2
createDate	Timestamp	The creation date.	2.3.2
lastOpDate	Timestamp	The last operation date.	2.3.2
listeners	List	See listeners .	2.3.2

#listeners

Name	Type	Description	Starting Version
id	Long		2.3.2
listenerUuid	String		2.3.2
certificateUuid	String		2.3.2
createDate	Timestamp	The creation date.	2.3.2
lastOpDate	Timestamp	The last operation date.	2.3.2

SDK Sample

Java SDK

```
CreateCertificateAction action = new CreateCertificateAction();
action.name = "www.domain.com";
action.certificate = "-----BEGIN PRIVATE KEY-----MIIEvQIBADANBgkqhkiG
9w0BAQEFAASCBCwggSjAgEAAoIBAQDIpe/zscx2QwunyYPHusMct/5n4LWSi4pz
fsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9S0RMncqUjTxPUjLZKoN0w+
nU2AsxXhbV8AiS3UoWJcZUtlfLAjeUKajy1F5hyxHsKJlm0ozAcX0bunzuawKKvjchqMSX
54+E02h7JNtzv9lagr0MSB4hkraanlpQWr4mv3N7D8kBz9wplMeJXeo4awls3ky
giN63TnIQ5hzF7jNxr3uSFYQtUfLnzKcj4aIma62tDf6pkpQ3S+SprGs/OkGvEldNus
6FXT07ixFy0RM27ka3Rmv6SYQQquV+950xfb42n9s2UE0pAgMBAAECggEAd0Ixye308ifN
```

```

gLAElK0MBcyouMnWCMFJzHX34n09vkiLdKk3imWBWUgxrUn713Cez0jZJn6PjuEyujs7Um
pUA22Cyp27PqbHkAvNM02SUxx1bB19UIapSGaM7gvmTvkoAxt4+DVD9NL4wkt
gp22HYnNImEgs+AaxLB9sokEvC6mxP23pv7LfnK4EDH2b+1pbE++VheVIBZxK+
mTdxPRgWQBjv2VtK0LRDndnRU8gmB500KBnep3sCsAKmWtAJf37L9lwgc9QC7LysnuMsZ1
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GZQKBgQD8abrSQX0JuNNx7N+EJjn3hjc3F0rSAGGY7LCiQ/qEP8EkwsLxotRHKqKqz7
8oq4RApT/fBV17HqPe67IJ5xhwYLIUASzs8WvigRV6ITSZv92G8i0SDw7ALZzF4q+
tc2RgPvW/pZPaHoxfNU6TC/QW35qAsLPwab7Tel9cGb030wKBgQDLf+OLfUfhJUq8
mZ3L8U1p1QLpSJNx282hgVg+OXwpuQQZ5qrXkhzF/xBYCjmmQMEfxLtrJxYTP
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ZBeW4nYXFYZ1tAoGBAJgnShIcn0bZRDUZwqMfC5uqud+E9UF3cBsY4SK9RnnHrSp
UjtHkRps/5498LaURMZS40roluFqw0n1vCqWvqi0IHee+vwoTMjEiIBCKsEMapDYz
VYVpZnL07Hk0Pm7V+Ey/7WXJpL2RngtU1fRcpYjGwMuXY5mF/GM8FxC055bjAoGATYqGL
qNhbZ0SVhgSs/2vHMLJYaHwJLLYPS+90Wk5JycvYSbfa9/rc2jblieuE5MseHQFqU0
BRVeHqY4dqpQpe045fC5h9vqC4Lp2LaXbwtXv5Z0cb/o8ecXuSxFe/G2PQvhK44I
QFb9RSLuQBUMp/gX6UNVS0dP+7dDpim5n2zY=-----END PRIVATE KEY-----
BEGIN CERTIFICATE-----MIID4zCCAsugAwIBAgIJAjWhNGBNfAtTMA0GCSqG
SIb3DQEBCwUAMIGHMQswCQYDVQGEwJDTjELMAkGA1UECAwCU0gxZzAJBgNVBACMAINIMQ
8wDQYDVQKDAZAu1RBQ0sxDAAKBgNVBAsMA0RldjEZMBcGA1UEAwQc2hpeGluLnzpdGFj
ay5pbzEkMkZGCSqGSIb3DQEJARYVc2hpeGluLnJlYW5AenN0YWNrLmLvMB4XDTE4MDMyMD
A0NDYwM1oXDTE5MDMyMDA0NDYwM1owGyYxCzAJBgNVBAYTAkNOMQswCQYDVQQIDAJTSEl
MAkGA1UEBwwCU0gxZzANBgNVBAoMBltVEFDSzEMMAoGA1UECwwDRGV2MRkwFwYDVQQDDDB
BzaGl4aW4uenN0YWNrLmLvMSQwIgYJKoZIhvcNAQkBFhVzaGl4aW4ucnVhbGk6c3RhY2su
aw8wgGEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQDIpe/zscx2QwunyYPHusMct/
5n4LWSi4pzfsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9S0RMncqUjTxPUjLZKoN0
w+nU2AsxXhbV8AiS3UowJcZUtlfLAjeUKajy1F5hyxHsKJlmOozAcX0bunzuaw
kKvjchqMSX54+E02h7JNtzv9lagr0MsB4hkraanlpQWr4mv3N7D8kBz9wplMeJX
eo4awls3kygiN63TnIQ5hzF7jNxr3uSFYQtUfLnzKcj4aIma62tDf6pkpQ3S+SprGs/
OkGvEldNus6FXT07ixFyORM27ka3Rmv6SYQQquV+950xfB42n9s2UE0pAgMBAAgJUDBOMB
0GA1UdDgQWBbtg8PjTzJmWSDA9GPTJ7K5wWTPVsjaFbgNVHSMEGDAWgBTg8PjTzJmWSDA9
GPTJ7K5wWTPVsjaMBgNVHRMEBTADAQH/MA0GCSqGSIb3DQEBCwUAA4IBAQDH5P
Ou4FmmAshXe49gLY6Kdcti2FTBYse7ru05V4URGSu5Dab25mATqp7z7WCiv9pTdlC0KoJ
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X3Raz0/h/9mCW6sLAGgaJ9MyQAiqRfYa0+ToBqdbHmBEwmuea007Wfy9UbU7F/
CdeEzblKdWRMKQgf5yxA6pXYghjPwWNAqELxnnXskBmjMhYaDfGCQuRK5Ma362ax0i8UGq
YfMnflBgy1qX8+f7VjywokK4tcjep72TTYkIVBGbwBMqk2U2v5qsLBRmM5+pmAESJq
-----END CERTIFICATE-----";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateCertificateAction.Result res = action.call();

```

Python SDK

```

CreateCertificateAction action = CreateCertificateAction()
action.name = "www.domain.com"
action.certificate = "-----BEGIN PRIVATE KEY-----MIIEvQIBADANBgkqhkiG
9w0BAQEFAASCBKcwggSjAgEAAoIBAQDIpe/zscx2QwunyYPHusMct/5n4LWSi4pz
fsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9S0RMncqUjTxPUjLZKoN0w+
nU2AsxXhbV8AiS3UowJcZUtlfLAjeUKajy1F5hyxHsKJlmOozAcX0bunzuawkKvjchqMSX
54+E02h7JNtzv9lagr0MsB4hkraanlpQWr4mv3N7D8kBz9wplMeJXeo4awls3ky
giN63TnIQ5hzF7jNxr3uSFYQtUfLnzKcj4aIma62tDf6pkpQ3S+SprGs/OkGvEldNus
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gLAElK0MBcyouMnWCMFJzHX34n09vkiLdKk3imWBWUgxrUn713Cez0jZJn6PjuEyujs7Um
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gp22HYnNImEgs+AaxLB9sokEvC6mxP23pv7LfnK4EDH2b+1pbE++VheVIBZxK+
mTdxPRgWQBjv2VtK0LRDndnRU8gmB500KBnep3sCsAKmWtAJf37L9lwgc9QC7LysnuMsZ1
0KuoeQndVetsAazBARHhUdLd1fWQqbLkLc6NtcLodoS+umuvHARkx6LungK4cmNy
GZQKBgQD8abrSQX0JuNNx7N+EJjn3hjc3F0rSAGGY7LCiQ/qEP8EkwsLxotRHKqKqz7
8oq4RApT/fBV17HqPe67IJ5xhwYLIUASzs8WvigRV6ITSZv92G8i0SDw7ALZzF4q+

```

```
tc2RgPvW/pZPaHoxfNU6TC/QW35qAslPwab7Tel9cGb030wKBgQDLf+OLfUfhJUq8
mZ3L8U1p1QLpSJNx282hGVg+OXwpuQQZ5qrXkhzF/xBYCjmmQMEfxLtrJxYTP
gkHcTp9ozl4ICXdmHpL8V+E5PBQjbCBNCbE8kjXngCc0wiKsLJIUwmKoVROq7d
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v+xl7TufMAeBV00iEtcucFVYswVE0sH0AeLYzCCJSL069U457XV0bbS26X9U00
ZBeW4nYXFYZ1tAoGBAJgnShIcn0bZRDUZwqMfC5uqud+E9UF3cBsY4SK9RnnHrSp
UjtHKRps/5498LaURMZS40roluFqw0n1vCqWvqi0IHee+vwoTMjEiIBCKsEMapDYz
VYVpzNl07Hk0Pm7V+Ey/7WXJpl2RngtU1fRcpYjGwMuXY5mF/GM8FxC055bjAoGATYqGL
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BRVeHqY4dqpQpe045fC5h9vqC4Lp2LaXbwtxv5Z0cb/o8ecXuSxFe/G2PQvhK44I
QFb9RSLuQBUMp/gX6UNVS0dP+7dDpim5n2zY=-----END PRIVATE KEY-----
BEGIN CERTIFICATE-----MIID4zCCAsugAwIBAgIJAJWhNGBNfAtTMA0GCSqG
SIB3DQEBCwUAMIGHMQswCQYDVQQGEwJDTjELMAKGA1UECAwCU0gxZzAJBgNVBACMAINIMQ
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ay5pbzEkMCIIGCSqGSIB3DQEJARYVc2hpeGluLnJ1YW5AenN0YWNrLmlvMB4XDTE4MDMyMD
A0NDYwM1oXDTE5MDMyMDA0NDYwM1owgYcxZzAJBgNVBAYTAkNOMQswCQYDVQQIDAJSDEL
MAKGA1UEBwwCU0gxZzANBgNVBAoMBlpTVEFDSzEMMAoGA1UECwwDRGV2MRkwFwYDVQQDDDB
BzaGl4aw4uenN0YWNrLmlvMSQwIgYJKoZIhvcNAQkBFhVzaGl4aw4ucnVhbGk6B6c3RhY2su
aw8wggeiMA0GCSqGSIB3DQEBAQUAA4IBDwAwggEKAoIBAQDIpe/zscx2QwunyYPHusMct/
5n4LWSi4pzfsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9S0RMncqUjTxPUjLZKoN0
w+nU2AsxXhbV8AiS3UoWJcZUtlfLAjeUKajy1F5hyxHsKJlmOozAcX0bunzuaW
kKvjchqMSX54+E02h7JNTzv9lagr0MSB4hkraanlpQWr4mv3N7D8kBz9wplMeJX
eo4awls3kygiN63TnIQ5hzF7jNxr3uSFYQtUfLnzKcj4aIma62tDf6pkpQ3S+SprGs/
OkGvEldNus6FXT07ixFy0RM27ka3Rmv6SYQQquV+950xfb42n9s2UE0pAgMBAAGjUDBOMB
0GA1UdDgQWBBTg8PjTZJmWSDA9GPTJ7K5wWTPVsjaFbgNVHSMEGDAWgBTg8PjTZJmWSDA9
GPTJ7K5wWTPVsjaMBgNVHRMEBTADAQH/MA0GCSqGSIB3DQEBCwUAA4IBAQDH5P
Ou4FmmAShXe49g6Y6Kdcti2FTBYse7ru05V4URGSU5Dab25mATqp7z7WCiv9pTdlC0KoJ
ieML7rpLiLskBBLpToU8bUigX96q5dmMtdbLSmGeYfhHj9tHeYuGv0U2eRcn2Jo6xLhr16
X3Raz0/h/9mCW6sLAGgaJ9MyQAiqRfYa0+ToBqdbHmBEwmuea007wFy9UbU7F/
CdeEzblKdWRMKQgf5yxA6pXYghjPwWNAqElxnnXskBmjMhYaDfGCQuRK5Ma362ax0i8UGq
YfMnflBgy1qX8+f7VjywokK4tcjep72TTYkIVBGbwBMqk2U2v5qsLBRmM5+pmAESJq
-----END CERTIFICATE-----"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateCertificateAction.Result res = action.call()
```

5.4.1.11.21 DeleteCertificate

API Request

URLs

```
DELETE zstack/v1/certificates/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
certificates/378bccfaa21d3b7fbb7b9bb014d1541c
```

Request Parameters

Name	Description	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3.2
deleteMode	String	body	Optional. The delete mode.		2.3.2
systemTags	List	body	Optional. The system tags.		2.3.2
userTags	List	body	Optional. The user tags.		2.3.2

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteCertificateAction action = new DeleteCertificateAction();
action.uuid = "378bccfaa21d3b7fbb7b9bb014d1541c";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteCertificateAction.Result res = action.call();
```

Python SDK

```
DeleteCertificateAction action = DeleteCertificateAction()
action.uuid = "378bccfaa21d3b7fbb7b9bb014d1541c"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteCertificateAction.Result res = action.call()
```

5.4.1.11.22 QueryCertificate

API Request

URLs

```
GET zstack/v1/certificates
GET zstack/v1/certificates/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/certificates
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/
certificates/658b7eeb6e2e3ea28c4243ae24e20e07
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryCertificate`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "www.domain.com",
      "certificate": "-----BEGIN PRIVATE KEY-----MIIEvQIBADANBgkqhkiG
9w0BAQEFAASCBKcwggSjAgEAAoIBAQDIpe/zscx2QwunyYPHusMct/5n4LWSi4pz
fsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9S0RMncqUjTxPUjLZKoN0w+
nU2AsxXhbV8AiS3UoWJcZUtlfLAjeUKajy1F5hyxHsKJlm0ozAcX0bunzuaWkKvjchqMSX
54+E02h7JNtzv9lagr0MSB4hkraanlpQWr4mv3N7D8kBz9wplMeJXeo4awls3ky
giN63TnIQ5hzF7jNxr3uSFYQtUfLnzKcj4aIma62tDf6pkpQ3S+SprGs/0kGvEldNus
6FXT07ixFyORM27ka3Rmv6SYQQquV+950xfb42n9s2UE0pAgMBAAECggEAd0Ixye308ifN
gLAE1K0MBcyouMnWCMFJzHX34n09vkILdKk3imWBWUgxrUn713Cez0jZJn6PjuEyujs7Um
pUA22Cyp27PqbHkAvNM02SUxx1bB19UIapSGaM7gvmTvkoAxt4+DVD9NL4wkt
gp22HYnNImEgs+AaxLB9sokEvC6mxP23pv7LfnK4EDH2b+1pbE++VheVIBZxK+
mTdxPRgwQBjv2VtK0LRDndnRU8gmB500KBnep3sCsAKmWtAJf37L9lwgc9QC7LysnuMsZ1
0KuoeQndVetsAazBARHhUdLd1fWQqbLkLc6NtcLodoS+umuvHArKx6LungK4cmNy
GZQKBgQD8abrSQX0JuNNx7N+EJjn3hj3F0rSagGY7LCiQ/qEP8EkwsLxotRHkqKqz7
8oq4RApT/fBV17HqPe67IJ5xhwYLIUASzs8WvigRV6ITSZv92G8i0Sdw7ALZzF4q+
tc2RgPvW/pZPaHoxfNU6TC/QW35qAsLPwab7Tel9cGb030wKBgQDLf+OLfUfhJUq8
mZ3L8U1p1QLpSJNx282hGVg+OXwpuQQZ5qrXkhzF/xBYCjmMQMEfxLtRjXyTP
```

```

gkHcTp9ozl4ICXdmHpL8V+E5PBQjbcBNcbE8kjXngCc0wiKsLJIUwmKoVROq7d
AaUz3INzKp0tUjF8aa7DzC+1C4+j5nvF1kwKBgCTAKClQyke1F2Qw/uI4xpvZeNS
WQRJ0pHjLjVoy15jFx5NJfKcE9C9gb8q68LQ1NM5MwR3xpAi3D1j3rDZw5UgHqLes7CObi
v+x17TufMAeBV00iEtcucFVYswVE0sH0AeLYzCCJSL069U457XV0bbS26X9U00
ZBew4nYXFYZ1tAoGBAJgnShIcn0bZRDUZwqMfC5uqud+E9UF3cBsY4SK9RnnHrSp
UjtHKRps/5498LaURMZS40roluFqw0n1vCqWvqi0IHee+vwoTMjEiIBCKsEMapDYz
VYVpzNl07Hk0Pm7V+Ey/7WXJpl2RngtU1fRcpYjGwMuXY5mF/GM8FxC055bjAoGATYqGL
qNhbZ0SVhgSs/2vHMLJYaHwJLLYPS+90Wk5JycvYSbfa9/rc2jblieuE5MseHQFqU0
BRVeHqY4dqpQpe045fC5h9vqC4Lp2LaXbwtXv5Z0cb/o8ecXuSxFeF/G2PQvhK44I
QFb9RSLuQBUMp/gX6UNVS0dP+7dDpim5n2zY\u003d-----END PRIVATE KEY
-----BEGIN CERTIFICATE-----MIID4zCCAsugAwIBAgIJAjWhNGBNfA
tTMA0GCSqGSIb3DQEBCwUAMIGHMQswCQYDVQQGEwJDTjELMAKGA1UECAwCU0gxZCZAJBgNV
BACMAInIMQ8wDQYDVQQKDAZaU1RBQ0sxDDAKBgNVBAsMA0RldjEZMBcGA1UEAwQc2hpeG
luLnJ1Yw5AenN0YWNrLmLvMB4XDTE4MDMyMDA0NDYwM1oXDTE5MDMyMDA0NDYwM1owgYcxZCZAJBgNVBAYTAkNOMQswCQYDVQ
QIDAJTSELMAGKGA1UEBwwCU0gxZDZANBgNVBAoMBlpTVEFDSzEMMAoGA1UECwwDRGV2MRkw
FwYDVQQDDDBZaGl4aW4uenN0YWNrLmLvMSQwIgYJKoZIhvcNAQkBFhVzaGl4aW4ucnVhbk
B6c3RhY2suaw8wggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAoIBAQDIpe/
zscx2QwunyYPHusMct/5n4LWSi4pzfsUfvzo4txTe7WwWZ4H3iEA7RwSkg49xx3Rn6jh9
S0RMncqUjTxPUjLZKoN0w+nU2AsxXhbV8AiS3UoWJcZutlfLAjeUKajy1F5hyx
HsKJlm0ozAcX0bunzuaWkKvjchqMSX54+E02h7JNtzv9lagr0MsB4hkraanlpQW
r4mv3N7D8kBz9wplMeJXeo4awls3kygiN63TnIQ5hzF7jNxr3uSFYQtUfLnzKcj4aIma62
tDf6pkpQ3S+SprGs/OkGvELdNus6FXT07ixFyORM27ka3Rmv6SYQquV+950xfb42n9
s2UE0pAgMBAAAGjUDBOMB0GA1UdDgQWBbTg8PjTZJmWSDA9GPTJ7K5wWTPVsjaFbgNVHSME
GDAWgBTg8PjTZJmWSDA9GPTJ7K5wWTPVsjaMBGnVHRMEBTADAQH/MA0GCSqGSI
b3DQEBCwUAA4IBAQDH5P0u4FmmAsHXe49gL6Y6Kdcti2FTBYse7ru05V4URGsU5Dab25mA
Tqp7z7WCiv9pTdlC0KoJieML7rpLiLskBBLpToU8bUigX96q5dmMtDbLsmGeYfhHj9tHeY
uGv0U2eRcN2Jo6xlHrL6X3Raz0/h/9mCW6sLAGgaJ9MyQAiqRfYa0+ToBqdbHmBE
wmuea007wFy9UbU7F/CdeEzblKdWRMKQgf5yxA6pXYghjPWWNAqELxnnXskBmjMhYaDf
GCQuRK5Ma362ax0i8UGqYfMnflBgylqX8+f7VjyWokK4tcjep72TTYkIVBGbwBMq
k2U2v5qsLBRmM5+pmAESJq-----END CERTIFICATE-----"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
certificate	String	The certificate.	2.3.2
description	String	The detailed description of the resource.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
listeners	List	See listeners .	0.6

#listeners

Name	Type	Description	Starting Version
id	Long		2.3.2
listenerUuid	String		0.6
certificateUuid	String		2.3.2
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryCertificateAction action = new QueryCertificateAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryCertificateAction.Result res = action.call();
```

Python SDK

```
QueryCertificateAction action = QueryCertificateAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryCertificateAction.Result res = action.call()
```

5.4.1.11.23 AddCertificateToLoadBalancerListener

API Request

URLs

```
POST zstack/v1/load-balancers/listeners/{listenerUuid}/certificate
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "certificateUuid": "707589c97d89315691794dbdadadb1252f"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"certificateUuid":"707589c97d89315691794dbdadb1252f"}}' \
http://localhost:8080/zstack/v1/load-balancers/
listeners/706687a8f42538e99a8519b9cbd61440/certificate
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
certificateUuid	String	body (contained in the params structure)			2.3.2
listenerUuid	String	url			2.3.2
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-Lb-Listener",
    "loadBalancerUuid": "5f6148b3eafc37e59a6cfcb30f3bd8b8",
    "vmNicRefs": [
      {
        "listenerUuid": "5f6148b3eafc37e59a6cfcb30f3bd8b8",
        "vmNicUuid": "202ca851ff3e30d0b43a6176008a7bed"
      }
    ],
    "certificateRefs": [
      {
        "listenerUuid": "5f6148b3eafc37e59a6cfcb30f3bd8b8",
        "certificateUuid": "fb20f7baabb93cc9a2e0e713c5dfd870"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	
inventory	LoadBalancerListener Inventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6

Name	Type	Description	Starting Version
loadBalancerUuid	String	The load balancer UUID.	0.6
instancePort	Integer		0.6
loadBalancerPort	Integer		0.6
protocol	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
vmNicRefs	List	See vmNicRefs .	0.6
certificateRefs	List	See certificateRefs .	2.3.2

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		0.6
listenerUuid	String		0.6
vmNicUuid	String	The VM NIC UUID.	0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#certificateRefs

Name	Type	Description	Starting Version
id	Long		2.3.2
listenerUuid	String		2.3.2
certificateUuid	String		2.3.2
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
AddCertificateToLoadBalancerListenerAction action = new AddCertificateToLoadBalancerListenerAction();
action.certificateUuid = "707589c97d89315691794dbdadb1252f";
action.listenerUuid = "706687a8f42538e99a8519b9cbd61440";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddCertificateToLoadBalancerListenerAction.Result res = action.call();
```

Python SDK

```
AddCertificateToLoadBalancerListenerAction action = AddCertificateToLoadBalancerListenerAction()
action.certificateUuid = "707589c97d89315691794dbdadb1252f"
action.listenerUuid = "706687a8f42538e99a8519b9cbd61440"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddCertificateToLoadBalancerListenerAction.Result res = action.call()
```

5.4.1.11.24 RemoveCertificateFromLoadBalancerListener

API Request

URLs

```
DELETE zstack/v1/load-balancers/listeners/{listenerUuid}/certificate
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/load-balancers/
listeners/7b49bf59591335e8a9e3aa35c0949c0a/certificate
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
certificateUuid	String	body			2.3.2
listenerUuid	String	url			2.3.2
systemTags	List	body	Optional. The system tags.		2.3.2
userTags	List	body	Optional. The user tags.		2.3.2

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-Lb-Listener",
    "loadBalancerUuid": "12c0b22525323a3d98d77a0fc722dfe6",
    "vmNicRefs": [
      {
        "listenerUuid": "12c0b22525323a3d98d77a0fc722dfe6",
        "vmNicUuid": "e1fffed46c7c329ea08eef0cf3162319"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LoadBalancerListener Inventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
loadBalancerUuid	String	The load balancer UUID.	0.6
instancePort	Integer		0.6
loadBalancerPort	Integer		0.6
protocol	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
vmNicRefs	List	See vmNicRefs .	0.6
certificateRefs	List	See certificateRefs .	0.6

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		0.6
listenerUuid	String		0.6
vmNicUuid	String	The VM NIC UUID.	0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6

#certificateRefs

Name	Type	Description	Starting Version
id	Long		2.3.2
listenerUuid	String		2.3.2
certificateUuid	String		2.3.2
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
RemoveCertificateFromLoadBalancerListenerAction action = new
RemoveCertificateFromLoadBalancerListenerAction();
action.certificateUuid = "ae54af269496365d99c558a7f4137a6c";
action.listenerUuid = "7b49bf59591335e8a9e3aa35c0949c0a";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveCertificateFromLoadBalancerListenerAction.Result res = action.
call();
```

Python SDK

```
RemoveCertificateFromLoadBalancerListenerAction action = RemoveCert
ificateFromLoadBalancerListenerAction()
action.certificateUuid = "ae54af269496365d99c558a7f4137a6c"
action.listenerUuid = "7b49bf59591335e8a9e3aa35c0949c0a"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveCertificateFromLoadBalancerListenerAction.Result res = action.  
call()
```

5.4.1.11.25 UpdateCertificate

API Request

URLs

```
PUT zstack/v1/certificates/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "updateCertificate": {  
    "name": "Test-Cer",  
    "description": "info"  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X PUT -d '{"updateCertificate":{"name":"Test-  
Cer","description":"info"}}' \  
http://localhost:8080/zstack/v1/certificates/  
e7fbc0a186d838f7b6fb0ae5133300ec/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the	Optional. Th resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		updateCertificate structure)			
description	String	body (contained in the updateCertificate structure)	Optional. The detailed description of the resource.		0.6
resourceUuid	String	body (contained in the updateCertificate structure)	Optional.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-Cer",
    "certificate": "123456789",
    "description": "Certificate for lb"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	CertificateInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
uuid	String	The resource UUID.	0.6
certificate	String	The certificate.	0.6
description	String	The detailed description of the resource.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
listeners	List	See listeners .	2.3

#listeners

Name	Type	Description	Starting Version
id	Long		2.3.2
listenerUuid	String		2.3
certificateUuid	String		2.3.2
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateCertificateAction action = new UpdateCertificateAction();
action.uuid = "e7fbc0a186d838f7b6fb0ae5133300ec";
action.name = "Test-Cer";
action.description = "info";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateCertificateAction.Result res = action.call();
```

Python SDK

```
UpdateCertificateAction action = UpdateCertificateAction()
action.uuid = "e7fbc0a186d838f7b6fb0ae5133300ec"
action.name = "Test-Cer"
action.description = "info"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateCertificateAction.Result res = action.call()
```

5.4.1.11.26 AddAccessControlListRedirectRule

API Request

URLs

```
POST zstack/v1/access-control-lists/{aclUuid}/redirectRules
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "redirect-rule",
    "domain": "zstack.io",
    "url": "/cloud"
  },
  "systemTags": [],
```

```
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"redirect-
rule","domain":"zstack.io","url":"/cloud"}}' http://
localhost:8080/zstack/v1/access-control-lists/
f1ca42b8901833fbac7cbd06e3b4d7cb/redirectRules
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	Optional. The resource name.		4.1.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.1.0
domain	String	body (contained in the params structure)	Optional. The domain name.		4.1.0
url	String	body (contained in the params structure)	Optional. The URL.		4.1.0
aclUuid	String	url	The UUID of the access control list.		4.1.0
resourceUuid	String	body (contained in	Optional. The resource UUID.		4.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.1.0
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "inventory": {
    "aclUuid": "3e05577ffa823e759d67e112aa7e5f80",
    "ipEntries": "192.168.48.0/24"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.1.0
inventory	AccessControlListEntryInventory	See inventory .	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
aclUuid	String		4.1.0
type	String		4.1.0
name	String	The resource name.	4.1.0
domain	String		4.1.0
url	String		4.1.0
ipEntries	String		4.1.0
description	String	The detailed description of the resource.	4.1.0
createDate	Timestamp	The creation date.	4.1.0
lastOpDate	Timestamp	The last operation date.	4.1.0

SDK Sample

Java SDK

```
AddAccessControlListRedirectRuleAction action = new AddAccessControlListRedirectRuleAction();
```



```

action.name = "redirect-rule";
action.domain = "zstack.io";
action.url = "/cloud";
action.aclUuid = "f1ca42b8901833fbac7cbd06e3b4d7cb";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddAccessControlListRedirectRuleAction.Result res = action.call();

```

Python SDK

```

AddAccessControlListRedirectRuleAction action = AddAccessControlList
RedirectRuleAction()
action.name = "redirect-rule"
action.domain = "zstack.io"
action.url = "/cloud"
action.aclUuid = "f1ca42b8901833fbac7cbd06e3b4d7cb"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddAccessControlListRedirectRuleAction.Result res = action.call()

```

5.4.1.11.27 ChangeAccessControlListRedirectRule

API Request

URLs

```
POST zstack/v1/access-control-lists/redirectRules/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "changeAccessControlListRedirectRule": {
    "name": "acl-group"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \

```

```
-X PUT -d '{"changeAccessControlListRedirectRule":{"name":"acl-group"}}' http://localhost:8080/zstack/v1/access-control-lists/redirectRules/e58d9a2195c432fda747f33a884028ed/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.1.0
name	String	body (contained in the changeAccessControlListRedirectRule structure)	Optional. The name of the forwarding rule.		4.1.0
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "inventory": {
    "aclUuid": "bc9854edd56938f59a7ad06d2ffddb77",
    "type": "RedirectRule",
    "name": "acl-group",
    "domain": "zstack.io",
    "url": "/test"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.1.0
inventory	AccessControlListEntryInventory	See inventory .	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.1.0
aclUuid	String		4.1.0
type	String		4.1.0
name	String	The resource name.	4.1.0
domain	String		4.1.0
url	String		4.1.0
ipEntries	String		4.1.0
description	String	The detailed description of the resource.	4.1.0
createDate	Timestamp	The creation date.	4.1.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.1.0

SDK Sample

Java SDK

```
ChangeAccessControlListRedirectRuleAction action = new ChangeAccessControlListRedirectRuleAction();
action.uuid = "e58d9a2195c432fda747f33a884028ed";
action.name = "acl-group";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeAccessControlListRedirectRuleAction.Result res = action.call();
```

Python SDK

```
ChangeAccessControlListRedirectRuleAction action = ChangeAccessControlListRedirectRuleAction()
action.uuid = "e58d9a2195c432fda747f33a884028ed"
action.name = "acl-group"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeAccessControlListRedirectRuleAction.Result res = action.call()
```

5.4.1.11.28 ChangeAccessControlListServerGroup

API Request

URLs

```
POST zstack/v1/load-balancers/listener/acl/{aclUuid}/servergroup/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeAccessControlListServerGroup": {
    "serverGroupUuids": [
      "89bdb613cad93f5f881b9127986d4d1b"
    ],
    "listenerUuid": "e58cd2cd6a633f999909c7e5ce448e07"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeAccessControlListServerGroup":{"serverGroupUuids":
["89bdb613cad93f5f881b9127986d4d1b"],"listenerUuid":"e58cd2cd6a633f999909c7e5ce4
http://localhost:8080/zstack/v1/load-balancers/listener/
acl/07f904e5fbc8312992dd85a99c8edc9b/servergroup/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
serverGroupUuids	List	body (contained in the changeAccessControlListServerGroup structure)	The UUID of the load balancer server group.		4.1.0
listenerUuid	String	body (contained in the changeAccessControlListServerGroup structure)	The UUID of the listener.		4.1.0
aclUuid	String	url	The UUID of the access control list.		4.1.0
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ChangeAccessControlListServerGroupAction action = new ChangeAccessControlListServerGroupAction();
action.serverGroupUuids = asList("89bdb613cad93f5f881b9127986d4d1b");
action.listenerUuid = "e58cd2cd6a633f999909c7e5ce448e07";
action.aclUuid = "07f904e5fbc8312992dd85a99c8edc9b";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeAccessControlListServerGroupAction.Result res = action.call();
```

Python SDK

```
ChangeAccessControlListServerGroupAction action = ChangeAccessControlListServerGroupAction()
action.serverGroupUuids = [89bdb613cad93f5f881b9127986d4d1b]
action.listenerUuid = "e58cd2cd6a633f999909c7e5ce448e07"
action.aclUuid = "07f904e5fbc8312992dd85a99c8edc9b"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeAccessControlListServerGroupAction.Result res = action.call()
```

5.4.1.11.29 GetLoadBalancerListenerACLEntries

API Request

URLs

```
POST zstack/v1/load-balancers/listeners/access-control-lists/entries
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/load-balancers/listeners/
access-control-lists/entries
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
listenerUids	List	query	Optional. The listener UUID.		4.1.0
type	String	query	Optional. The type.		4.1.0
systemTags	List	query	Optional. The system tags.		4.1.0
userTags	List	query	Optional. The user tags.		4.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
GetLoadBalancerListenerACLEntriesAction action = new GetLoadBalancerListenerACLEntriesAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetLoadBalancerListenerACLEntriesAction.Result res = action.call();
```

Python SDK

```
GetLoadBalancerListenerACLEntriesAction action = GetLoadBalancerListenerACLEntriesAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetLoadBalancerListenerACLEntriesAction.Result res = action.call()
```

5.4.1.11.30 CreateAccessControlList

API Request

URLs

```
POST zstack/v1/access-control-lists
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "acl-group",
    "ipVersion": 4.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"acl-group","ipVersion":4.0}}' http://
localhost:8080/zstack/v1/access-control-lists
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		3.9.0
description	String	body (contained in	Optional. The detailed		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	description of the resource.		
ipVersion	Integer	body (contained in the params structure)	Optional. The IP version.	• 4 • 6	3.9.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.9.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "acl-group",
    "ipVersion": 4.0
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventory	AccessControlListInventory	See inventory .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
ipVersion	Integer	The IP version.	3.9.0
description	String	The detailed description of the resource.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
entries	List	See entries .	3.9.0

#entries

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
aclUuid	String	The UUID of the access control list.	3.9.0
ipEntries	String	The IP entries.	3.9.0
description	String	The detailed description of the resource.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
CreateAccessControlListAction action = new CreateAccessControlListAction();
action.name = "acl-group";
action.ipVersion = 4.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAccessControlListAction.Result res = action.call();
```

Python SDK

```
CreateAccessControlListAction action = CreateAccessControlListAction()
action.name = "acl-group"
action.ipVersion = 4.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateAccessControlListAction.Result res = action.call()
```

5.4.1.11.31 DeleteAccessControlList

API Request

URLs

```
DELETE zstack/v1/access-control-lists/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/access-control-lists/
f2a128d702d83f4389ad82d425b0e74e
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.9.0
deleteMode	String	body	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteAccessControlListAction action = new DeleteAccessControlListAction();
action.uuid = "f2a128d702d83f4389ad82d425b0e74e";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAccessControlListAction.Result res = action.call();
```

Python SDK

```
DeleteAccessControlListAction action = DeleteAccessControlListAction()
```

```

action.uuid = "f2a128d702d83f4389ad82d425b0e74e"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteAccessControlListAction.Result res = action.call()

```

5.4.1.11.32 QueryAccessControlList

API Request

URLs

```
GET zstack/v1/access-control-lists
```

```
GET zstack/v1/access-control-lists/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/access-control-lists

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/access-control-lists/83146a1d0dd93c6abc53788a6434bd57

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using zstack-cli, entering **QueryAccessControlList**, and pressing the **Tab** key.

API Response

Sample Response

```

{
  "inventories": [
    {
      "uuid": "0abdbd20b8173ccf89f881309b5e40d0",
      "name": "acl-group"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	3.9.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventories	List	See inventories .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
ipVersion	Integer	The IP version.	3.9.0
description	String	The detailed description of the resource.	3.9.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
entries	List	See entries .	3.9.0

#entries

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
aclUuid	String	The UUID of the access control list.	3.9.0
ipEntries	String	The IP entries.	3.9.0
description	String	The detailed description of the resource.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
QueryAccessControlListAction action = new QueryAccessControlListAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAccessControlListAction.Result res = action.call();
```

Python SDK

```
QueryAccessControlListAction action = QueryAccessControlListAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryAccessControlListAction.Result res = action.call()
```

5.4.1.11.33 AddAccessControlListEntry

API Request

URLs

```
POST zstack/v1/access-control-lists/{aclUuid}/ipentries
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "entries": "192.168.12.1,192.168.48.0/24"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"entries":"192.168.12.1,192.168.48.0/24"}}'
http://localhost:8080/zstack/v1/access-control-
lists/101a39fcb6c538a4914d0ae7fa8468a4/ipentries
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
aclUuid	String	url	The UUID of the access control list.		3.9.0
entries	String	body (contained in the params structure)	The IP entries.		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.9.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.9.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventory": {
    "aclUuid": "3e05577ffa823e759d67e112aa7e5f80",
    "ipEntries": "192.168.48.0/24"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventory	AccessControlListEntryInventory	See inventory .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
aclUuid	String	The UUID of the access control list.	3.9.0
ipEntries	String	The IP entries.	3.9.0
description	String	The detailed description of the resource.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
AddAccessControlListEntryAction action = new AddAccessControlListEntryAction();
action.aclUuid = "101a39fcb6c538a4914d0ae7fa8468a4";
action.entries = "192.168.12.1,192.168.48.0/24";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddAccessControlListEntryAction.Result res = action.call();
```

Python SDK

```
AddAccessControlListEntryAction action = AddAccessControlListEntryAction()
action.aclUuid = "101a39fcb6c538a4914d0ae7fa8468a4"
action.entries = "192.168.12.1,192.168.48.0/24"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddAccessControlListEntryAction.Result res = action.call()
```

5.4.1.11.34 RemoveAccessControlListEntry

API Request

URLs

```
DELETE zstack/v1/access-control-lists/{aclUuid}/ipentries/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/access-control-lists/c151f0f90e143c26b6667e70ebbe5b7b/ipentries/22c9d1f964b63f6abc52fed8437042a3
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
aclUuid	String	url	The UUID of the access control list.		3.9.0
uuid	String	url	The resource UUID.		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
deleteMode	String	body	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveAccessControlListEntryAction action = new RemoveAccessControlListEntryAction();
action.aclUuid = "c151f0f90e143c26b6667e70ebbe5b7b";
action.uuid = "22c9d1f964b63f6abc52fed8437042a3";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveAccessControlListEntryAction.Result res = action.call();
```

Python SDK

```
RemoveAccessControlListEntryAction action = RemoveAccessControlListEntryAction()
action.aclUuid = "c151f0f90e143c26b6667e70ebbe5b7b"
action.uuid = "22c9d1f964b63f6abc52fed8437042a3"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveAccessControlListEntryAction.Result res = action.call()
```

5.4.1.11.35 AddAccessControlListToLoadBalancer

API Request

URLs

```
POST zstack/v1/load-balancers/listeners/{listenerUuid}/access-control-lists
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "aclUuids": [
      "25e10ecdb6d63b598899c1103d2cdf46"
    ],
    "aclType": "black"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"aclUuids":
["25e10ecdb6d63b598899c1103d2cdf46"],"aclType":"black"}}'
http://localhost:8080/zstack/v1/load-balancers/
listeners/19c1a4dcaea637da86e3ecbb6a3a5f6e/access-control-lists
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
aclUuids	List	body (contained in the params structure)	The UUID of the access control list.		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
aclType	String	body (contained in the params structure)	The access control type.	- white - black	3.9.0
listenerUuid	String	url	The listener UUID.		3.9.0
serverGroupUuids	List	body	Optional. The UUID of the load balancer server group.		4.1.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddAccessControlListToLoadBalancerAction action = new AddAccessControlListToLoadBalancerAction();
action.aclUuids = asList("25e10ecdb6d63b598899c1103d2cdf46");
action.aclType = "black";
action.listenerUuid = "19c1a4dcaea637da86e3ecbb6a3a5f6e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddAccessControlListToLoadBalancerAction.Result res = action.call();
```

Python SDK

```
AddAccessControlListToLoadBalancerAction action = AddAccessControlListToLoadBalancerAction()
action.aclUuids = [25e10ecdb6d63b598899c1103d2cdf46]
```

```

action.aclType = "black"
action.listenerUuid = "19c1a4dcaea637da86e3ecbb6a3a5f6e"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddAccessControlListToLoadBalancerAction.Result res = action.call()

```

5.4.1.11.36 RemoveAccessControlListFromLoadBalancer

API Request

URLs

```
DELETE zstack/v1/load-balancers/listeners/{listenerUuid}/access-control-lists
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/load-balancers/
listeners/0299b3e26af5350c8db91930723d2065/access-control-lists

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
aclUuids	List	body	The UUID of the access control list.		3.9.0
listenerUuid	String	url	The listener UUID.		3.9.0
serverGroupUuids	List	body	Optional. The UUID of the load balancer server group.		4.1.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "fb39937eaf5b3564af4b23d48802d438",
    "name": "test-lb-listener"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventory	LoadBalancerListenerInventory	See inventory .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.9.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
loadBalancerUuid	String	The load balancer UUID.	3.9.0
instancePort	Integer		3.9.0
loadBalancerPort	Integer		3.9.0
protocol	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
vmNicRefs	List	See vmNicRefs .	3.9.0
aclRefs	List	See aclRefs .	3.9.0
certificateRefs	List	See certificateRefs .	3.9.0
serverGroupRefs	List	See serverGroupRefs .	4.1.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		3.9.0
listenerUuid	String		3.9.0
vmNicUuid	String	The VM NIC UUID.	3.9.0
status	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The resource UUID.	3.9.0
listenerUuid	String	The listener UUID.	3.9.0
aclUuid	String	The UUID of the access control list.	3.9.0
type	String	The access control type.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		3.9.0
listenerUuid	String		3.9.0
certificateUuid	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	Long		4.1.0
listenerUuid	String		4.1.0
serverGroupUuid	String		4.1.0
createDate	Timestamp	The creation date.	4.1.0
lastOpDate	Timestamp	The last operation date.	4.1.0

SDK Sample

Java SDK

```
RemoveAccessControlListFromLoadBalancerAction action = new RemoveAccessControlListFromLoadBalancerAction();
action.aclUuids = asList("027bfcc0fddf39e3be51badf4777c0cd");
action.listenerUuid = "0299b3e26af5350c8db91930723d2065";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveAccessControlListFromLoadBalancerAction.Result res = action.call();
```

Python SDK

```
RemoveAccessControlListFromLoadBalancerAction action = RemoveAccessControlListFromLoadBalancerAction()
action.aclUuids = ["027bfcc0fddf39e3be51badf4777c0cd"]
action.listenerUuid = "0299b3e26af5350c8db91930723d2065"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveAccessControlListFromLoadBalancerAction.Result res = action.call()
```

5.4.1.11.37 GetCandidateL3NetworksForLoadBalancer

API Request

URLs

```
GET zstack/v1/load-balancers/listeners/{listenerUuid}/networks/candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/load-balancers/listeners/6ecc19bdec0139499e3abf6c51bca683/networks/candidates?limit=1000.0&start=0.0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
listenerUuid	String	url			3.9.0
limit	Integer	query	Optional.		3.9.0
start	Integer	query	Optional.		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		3.9.0
userTags	List	query	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "Test-L3Network",
      "l2NetworkUuid": "7631f86a65af335fb1496afe8e7ac9ee"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventories	List	See inventories .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
type	String		3.9.0
zoneUuid	String	The zone UUID.	3.9.0
l2NetworkUuid	String	The L2 network UUID.	3.9.0
state	String		3.9.0
dnsDomain	String		3.9.0
system	Boolean		3.9.0
category	String		3.9.0
ipVersion	Integer		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
dns	List		3.9.0
ipRanges	List	See ipRanges .	3.9.0
networkServices	List	See networkServices .	3.9.0
hostRoute	List	See hostRoute .	3.9.0

#ipRanges

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
I3NetworkUuid	String	The L3 network UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
startIp	String		3.9.0
endIp	String		3.9.0
netmask	String		3.9.0
gateway	String		3.9.0
networkCidr	String		3.9.0
ipVersion	Integer		3.9.0
addressMode	String		3.9.0
prefixLen	Integer		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

#networkServices

Name	Type	Description	Starting Version
I3NetworkUuid	String	The L3 network UUID.	3.9.0
networkServiceProviderUuid	String	The UUID of the network service provider.	3.9.0
networkServiceType	String		3.9.0

#hostRoute

Name	Type	Description	Starting Version
id	Long		3.9.0
I3NetworkUuid	String	The L3 network UUID.	3.9.0
prefix	String		3.9.0

Name	Type	Description	Starting Version
nextHop	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
GetCandidateL3NetworksForLoadBalancerAction action = new GetCandidateL3NetworksForLoadBalancerAction();
action.listenerUuid = "6ecc19bdec0139499e3abf6c51bca683";
action.limit = 1000.0;
action.start = 0.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateL3NetworksForLoadBalancerAction.Result res = action.call();
```

Python SDK

```
GetCandidateL3NetworksForLoadBalancerAction action = GetCandidateL3NetworksForLoadBalancerAction()
action.listenerUuid = "6ecc19bdec0139499e3abf6c51bca683"
action.limit = 1000.0
action.start = 0.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetCandidateL3NetworksForLoadBalancerAction.Result res = action.call()
```

5.4.1.11.38 CreateLoadBalancerServerGroup

API Request

URLs

```
POST zstack/v1/load-balancers/{loadBalancerUuid}/servergroups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "create-Lb",
    "ipVersion": 4
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X POST -d '{"params":{"name":"create-Lb","ipVersion":4}}' http://
localhost:8080/zstack/v1/load-
balancers/7cac70b63aad32dda436e95bba3c34cb/servergroups
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body(contained in the params structure)	The name of the server group for load balancing.		4.0.0
description	String	body(contained in the params structure)	Optional. The detailed description of the server group.		4.0.0
loadBalancerUuid	String	url	The load balancer UUID.		4.0.0
resourceUuid	String	body(contained in the params structure)	Optional. The UUID of the server group.		4.0.0
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
ipVersion	Integer	body(contained in the params structure)	Optional. The ip version.		5.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
CreateLoadBalancerServerGroupAction action = new CreateLoadBalancerServerGroupAction();
action.name = "create-Lb";
action.loadBalancerUuid = "7cac70b63aad32dda436e95bba3c34cb";
action.ipVersion = 4;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateLoadBalancerServerGroupAction.Result res = action.call();
```

Python SDK

```
CreateLoadBalancerServerGroupAction action = CreateLoadBalancerServerGroupAction()
action.name = "create-Lb"
action.loadBalancerUuid = "7cac70b63aad32dda436e95bba3c34cb"
action.ipVersion = 4
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateLoadBalancerServerGroupAction.Result res = action.call()
```

5.4.1.11.39 DeleteLoadBalancerServerGroup

API Request

URLs

```
DELETE zstack/v1/load-balancers/servergroups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/load-balancers/
servergroups/1e1fef3a79563c1080210f094ea62898?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the server group.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteLoadBalancerServerGroupAction action = new DeleteLoadBalancerSe  
rverGroupAction();  
action.uuid = "1e1fef3a79563c1080210f094ea62898";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
DeleteLoadBalancerServerGroupAction.Result res = action.call();
```

Python SDK

```
DeleteLoadBalancerServerGroupAction action = DeleteLoadBalancerSe  
rverGroupAction()  
action.uuid = "1e1fef3a79563c1080210f094ea62898"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
DeleteLoadBalancerServerGroupAction.Result res = action.call()
```

5.4.1.11.40 UpdateLoadBalancerServerGroup

API Request

URLs

```
PUT zstack/v1/load-balancers/servergroups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "updateLoadBalancerServerGroup": {  
    "name": "updateServerGroup",  
    "description": "updateServerGroup"  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  

```

```
-X PUT -d '{"updateLoadBalancerServerGroup":
{"name":"updateServerGroup","description":"updateServerGroup"}}'
http://localhost:8080/zstack/v1/load-balancers/servergroups/
e29a3b43310933718221e4c314c8af6f/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.0.0
name	String	body(contained in the updateLoadBalancerServerGroup structure)	Optional. The resource name.		4.0.0
description	String	body(contained in the updateLoadBalancerServerGroup structure)	Optional. The detailed description of the resource.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
UpdateLoadBalancerServerGroupAction action = new UpdateLoadBalancerServerGroupAction();
action.uuid = "e29a3b43310933718221e4c314c8af6f";
action.name = "updateServerGroup";
action.description = "updateServerGroup";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateLoadBalancerServerGroupAction.Result res = action.call();
```

Python SDK

```
UpdateLoadBalancerServerGroupAction action = UpdateLoadBalancerServerGroupAction()
action.uuid = "e29a3b43310933718221e4c314c8af6f"
action.name = "updateServerGroup"
action.description = "updateServerGroup"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateLoadBalancerServerGroupAction.Result res = action.call()
```

5.4.1.11.41 QueryLoadBalancerServerGroup

API Request

URLs

```
GET zstack/v1/load-balancers/servergroups
```

```
GET zstack/v1/load-balancers/servergroups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/load-balancers/servergroups
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/load-balancers/servergroups/3d12c68915bd391ca7cea7a95249b47b
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryLoadBalancerServerGroup**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "f523d90c41b136279b523052149c9690",
      "name": "Test-LbServerGroup"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	See inventories .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.0.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the server group.	4.0.0
name	String	The name of the server group.	4.0.0
description	String	The detailed description of the server group.	4.0.0
loadBalancerUuid	String	The load balancer UUID.	4.0.0
createDate	Timestamp	The time when the server group was created.	4.0.0
lastOpDate	Timestamp	The time when the server group was last modified.	4.0.0
listenerServerGroupRefs	List	See listenerServerGroupRefs .	4.0.0
serverIps	List	See serverIps .	4.0.0
vmNicRefs	List	See vmNicRefs .	4.0.0

#listenerServerGroupRefs

Name	Type	Description	Starting Version
id	long		4.0.0
listenerUuid	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the listener was created.	4.0.0
lastOpDate	Timestamp	The time when the listener was last modified.	4.0.0

#serverIps

Name	Type	Description	Starting Version
id	long		4.0.0
description	String	The detailed description of the IP address.	4.0.0
serverGroupUuid	String		4.0.0
ipAddress	String		4.0.0
weight	Long		4.0.0
status	String		4.0.0
createDate	Timestamp	The time when the was used.	4.0.0
lastOpDate	Timestamp	The time when the was last modified.	4.0.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
serverGroupUuid	String		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
weight	Long		4.0.0
status	String		4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

SDK Sample

Java SDK

```
QueryLoadBalancerServerGroupAction action = new QueryLoadBalancerServerGroupAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```



```
QueryLoadBalancerServerGroupAction.Result res = action.call();
```

Python SDK

```
QueryLoadBalancerServerGroupAction action = QueryLoadBalancerServerGroupAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryLoadBalancerServerGroupAction.Result res = action.call()
```

5.4.1.11.42 AddBackendServerToServerGroup

API Request

URLs

```
POST zstack/v1/load-balancers/servergroups/{serverGroupUuid}/
backendservers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmNics": [
      {
        "70856dd6ee693c30b28e6233850fc494": "10"
      }
    ],
    "servers": [
      {
        "192.168.1.1": "20"
      }
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"vmNics":
[{"70856dd6ee693c30b28e6233850fc494":"10"}], "servers":
```

```
[{"192.168.1.1":"20"}]]}' http://localhost:8080/zstack/v1/load-balancers/servergroups/9e9c1f7a74ce3cb6b51d4f938537f765/backendservers
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
serverGroupUuid	String	url	The UUID of the server group for load balancing.		4.0.0
vmNics	List	body(contained in the params structure)	Optional. The NIC of the backend server.		4.0.0
servers	List	body(contained in the params structure)	Optional. The IP address of the backend server.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddBackendServerToServerGroupAction action = new AddBackendServerToServerGroupAction();
action.serverGroupUuid = "9e9c1f7a74ce3cb6b51d4f938537f765";
action.vmNics = asList([70856dd6ee693c30b28e6233850fc494:10]);
action.servers = asList([192.168.1.1:20]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AddBackendServerToServerGroupAction.Result res = action.call();
```

Python SDK

```
AddBackendServerToServerGroupAction action = AddBackendServerToSe
rverGroupAction()
action.serverGroupUuid = "9e9c1f7a74ce3cb6b51d4f938537f765"
action.vmNics = [[70856dd6ee693c30b28e6233850fc494:10]]
action.servers = [[192.168.1.1:20]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddBackendServerToServerGroupAction.Result res = action.call()
```

5.4.1.11.43 RemoveBackendServerFromServerGroup

API Request

URLs

```
PUT zstack/v1/load-balancers/servergroups/{serverGroupUuid}/
backendservers/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "removeBackendServerFromServerGroup": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"removeBackendServerFromServerGroup":{}}'
http://localhost:8080/zstack/v1/load-balancers/servergroups/
af07cb06004d35b6af53aa12c8438f22/backendservers/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
serverGroupUuid	String	url			4.0.0
vmNicUuids	List	body(contained in the removeBackendServerFromServerGroup structure)	Optional.		4.0.0
serverIps	List	body(contained in the removeBackendServerFromServerGroup structure)	Optional.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveBackendServerFromServerGroupAction action = new RemoveBackendServerFromServerGroupAction();
action.serverGroupUuid = "af07cb06004d35b6af53aa12c8438f22";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
RemoveBackendServerFromServerGroupAction.Result res = action.call();
```

Python SDK

```
RemoveBackendServerFromServerGroupAction action = RemoveBackendServerFromServerGroupAction()
action.serverGroupUuid = "af07cb06004d35b6af53aa12c8438f22"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveBackendServerFromServerGroupAction.Result res = action.call()
```

5.4.1.11.44 AddServerGroupToLoadBalancerListener

API Request

URLs

```
POST zstack/v1/load-balancers/listeners/{listenerUuid}/servergroups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "serverGroupUuid": "05a078a03cad32a6a4c5c05f418eb27a"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"serverGroupUuid": "05a078a03cad32a6a4c5c05f418eb27a"}}'
http://localhost:8080/zstack/v1/load-balancers/listeners/
cb64a1d37cae35449ca3f9813150f073/servergroups
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
serverGroupUuid	String	body(contained in the params structure)	The UUID of the server group for load balancing.		4.0.0
listenerUuid	String	url	The UUID of the listener.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2bdca7f6bea932cd8373468d971ef61f",
    "name": "Test-Listener",
    "loadBalancerUuid": "32a8cf1442b43724bef1aa2f94aa97e4",
    "instancePort": 80.0,
    "loadBalancerPort": 80.0,
    "protocol": "http"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	LoadBalancerListenerInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	4.0.0

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The listener UUID.	4.0.0
name	String	The name of the listener.	4.0.0
description	String	The detailed description of the listener.	4.0.0
loadBalancerUuid	String	The load balancer UUID.	4.0.0
instancePort	Integer		4.0.0
loadBalancerPort	Integer		4.0.0
protocol	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the listener was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the listener was last modified.	4.0.0
vmNicRefs	List	See vmNicRefs .	4.0.0
aclRefs	List	See aclRefs .	4.0.0
certificateRefs	List	See certificateRefs .	4.0.0
serverGroupRefs	List	See serverGroupRefs .	4.0.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
listenerUuid	String		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
status	String		4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The record ID.	4.0.0
listenerUuid	String	The listener UUID.	4.0.0
aclUuid	String	The UUID of the access control list (ACL).	4.0.0
type	String	The type of the ACL.	4.0.0
createDate	Timestamp	The time when the ACL was created.	4.0.0
lastOpDate	Timestamp	The time when the ACL was last modified.	4.0.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
listenerUuid	String		4.0.0
certificateUuid	String		4.0.0
createDate	Timestamp	The time when the certificate was created.	4.0.0
lastOpDate	Timestamp	The time when the certificate was last modified.	4.0.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	long		4.0.0
listenerUuid	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the server group was created.	4.0.0
lastOpDate	Timestamp	The time when the server group was last modified.	4.0.0

SDK Sample

Java SDK

```
AddServerGroupToLoadBalancerListenerAction action = new AddServerGroupToLoadBalancerListenerAction();
action.serverGroupUuid = "05a078a03cad32a6a4c5c05f418eb27a";
action.listenerUuid = "cb64a1d37cae35449ca3f9813150f073";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddServerGroupToLoadBalancerListenerAction.Result res = action.call();
```

Python SDK

```
AddServerGroupToLoadBalancerListenerAction action = AddServerGroupToLoadBalancerListenerAction()
action.serverGroupUuid = "05a078a03cad32a6a4c5c05f418eb27a"
action.listenerUuid = "cb64a1d37cae35449ca3f9813150f073"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddServerGroupToLoadBalancerListenerAction.Result res = action.call()
```

5.4.1.11.45 RemoveServerGroupFromLoadBalancerListener

API Request

URLs

```
DELETE zstack/v1/load-balancers/listeners/{listenerUuid}/servergroups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/load-balancers/listeners/
f75607a7bf203e07bab135d9363bd17d/servergroups
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
serverGroupUuid	String	body	The server group UUID.		4.0.0
listenerUuid	String	url	The listener UUID.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0938faf74f7d34cd97d35427b1b562e5",
    "name": "Test-Listener",
    "loadBalancerUuid": "e64028f4b3f33896a49d4da1d4e51a8f",
    "instancePort": 80.0,
    "loadBalancerPort": 80.0,
    "protocol": "http"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	LoadBalancerListener Inventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The listener UUID.	4.0.0

Name	Type	Description	Starting Version
name	String	The name of the listener.	4.0.0
description	String	The detailed description of the listener.	4.0.0
loadBalancerUuid	String	The load balancer UUID.	4.0.0
instancePort	Integer		4.0.0
loadBalancerPort	Integer		4.0.0
protocol	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the listener was created.	4.0.0
lastOpDate	Timestamp	The time when the listener was last modified.	4.0.0
vmNicRefs	List	See vmNicRefs .	4.0.0
aclRefs	List	See aclRefs .	4.0.0
certificateRefs	List	See certificateRefs .	4.0.0
serverGroupRefs	List	See serverGroupRefs .	4.0.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
listenerUuid	String		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
status	String		4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The record ID.	4.0.0
listenerUuid	String	The listener UUID.	4.0.0
aclUuid	String	The UUID of the access control list (ACL).	4.0.0
type	String	The type of the ACL.	4.0.0
createDate	Timestamp	The time when the ACL was created.	4.0.0
lastOpDate	Timestamp	The time when the ACL was last modified.	4.0.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
listenerUuid	String		4.0.0
certificateUuid	String		4.0.0
createDate	Timestamp	The time when the certificate was created.	4.0.0
lastOpDate	Timestamp	The time when the certificate was last modified.	4.0.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	long		4.0.0
listenerUuid	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the server group was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the server group was last modified.	4.0.0

SDK Sample

Java SDK

```
RemoveServerGroupFromLoadBalancerListenerAction action = new
RemoveServerGroupFromLoadBalancerListenerAction();
action.serverGroupUuid = "f08184f0cda83505bc2a703b5e589160";
action.listenerUuid = "f75607a7bf203e07bab135d9363bd17d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveServerGroupFromLoadBalancerListenerAction.Result res = action.
call();
```

Python SDK

```
RemoveServerGroupFromLoadBalancerListenerAction action = RemoveServ
erGroupFromLoadBalancerListenerAction()
action.serverGroupUuid = "f08184f0cda83505bc2a703b5e589160"
action.listenerUuid = "f75607a7bf203e07bab135d9363bd17d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveServerGroupFromLoadBalancerListenerAction.Result res = action.
call()
```

5.4.1.11.46 ChangeLoadBalancerBackendServer

API Request

URLs

```
PUT zstack/v1/load-balancers/servergroups/{serverGroupUuid}/
backendserver/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeLoadBalancerBackendServer": {
    "vmNics": [
      {
        "c1409d7fc54333d5ad3163d406620c01": "10"
      }
    ],
    "servers": [
      {
        "192.168.1.1": "20"
      }
    ]
  }
}
```

```

    ],
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeLoadBalancerBackendServer":{"vmNics":
[{"c1409d7fc54333d5ad3163d406620c01":"10"}], "servers":
[{"192.168.1.1":"20"}]}}' http://localhost:8080/zstack/v1/load-
balancers/servergroups/892bcf49ff433372952a09db93f851e6/backendserver/
actions

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
serverGroupUuid	String	url	The UUID of the server group for load balancing.		4.0.0
vmNics	List	body(contained in the changeLoadBalancerBackendServer structure)	Optional. The VM NICs.		4.0.0
servers	List	body(contained in the changeLoadBalancerBackendServer structure)	Optional. The IP addresses of backend servers.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ChangeLoadBalancerBackendServerAction action = new ChangeLoadBalancerBackendServerAction();
action.serverGroupUuid = "892bcf49ff433372952a09db93f851e6";
action.vmNics = asList([c1409d7fc54333d5ad3163d406620c01:10]);
action.servers = asList([192.168.1.1:20]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeLoadBalancerBackendServerAction.Result res = action.call();
```

Python SDK

```
ChangeLoadBalancerBackendServerAction action = ChangeLoadBalancerBackendServerAction()
action.serverGroupUuid = "892bcf49ff433372952a09db93f851e6"
action.vmNics = [[c1409d7fc54333d5ad3163d406620c01:10]]
action.servers = [[192.168.1.1:20]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeLoadBalancerBackendServerAction.Result res = action.call()
```

5.4.1.11.47 GetCandidateVmNicsForLoadBalancerServerGroup

API Request

URLs

```
GET zstack/v1/load-balancers/servergroups/candidate-nics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```



```
-X GET http://localhost:8080/zstack/v1/
load-balancers/servergroups/candidate-nics?
servergroupUuid=8e19c3c1227635b39799ff85cd2e01b4&loadBalancerUuid=786271b7eea63f0
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
servergroupUuid	String	query	Optional. The UUID of the server group.		4.0.0
loadBalancerUuid	String	query	Optional. The load balancer UUID.		4.0.0
systemTags	List	query	Optional. The system tags.		4.0.0
userTags	List	query	Optional. The user tags.		4.0.0
ipVersion	Integer	query		Optional. The ip version. 1. 4 2. 6	5.1.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "798c7b209b34303aa9a48593594bccee",
      "vmInstanceUuid": "c158c92bdda63bbb97c8dea6d284350a",
      "usedIpUuid": "702b0b20aeb3d4a880abe851940462d",
      "l3NetworkUuid": "a1cebc14f5b236578049889964686822",
      "ip": "192.168.1.10",
      "mac": "00:0c:29:bd:99:fc",
      "hypervisorType": "KVM",
      "netmask": "255.255.255.0",
      "gateway": "192.168.1.1",
      "deviceId": 0.0,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	See inventories .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The IP version.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps .	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The IP address UUID.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0

Name	Type	Description	Starting Version
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was used.	4.0.0
lastOpDate	Timestamp	The time when the was last modified.	4.0.0

SDK Sample

Java SDK

```
GetCandidateVmNicsForLoadBalancerServerGroupAction action = new
GetCandidateVmNicsForLoadBalancerServerGroupAction();
action.servergroupUuid = "8e19c3c1227635b39799ff85cd2e01b4";
action.loadBalancerUuid = "786271b7eea63f0785ed67e3a36bfe35";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateVmNicsForLoadBalancerServerGroupAction.Result res = action
.call();
```

Python SDK

```
GetCandidateVmNicsForLoadBalancerServerGroupAction action = GetCandida
teVmNicsForLoadBalancerServerGroupAction()
action.servergroupUuid = "8e19c3c1227635b39799ff85cd2e01b4"
action.loadBalancerUuid = "786271b7eea63f0785ed67e3a36bfe35"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetCandidateVmNicsForLoadBalancerServerGroupAction.Result res = action
.call()
```

5.4.1.11.48 CreateSlbGroup

API Request

URLs

```
POST zstack/v1/load-balancers/slb/groups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "slbGroup",
    "slbOfferingUuid": "f66b4cd06a2d3ae985e40514502c3ea3",
```

```

    "frontEndL3NetworkUuid": "307ab51e198a35bab0bcc517f849aa46",
    "backendType": "VYOS",
    "deployType": "NoHA",
    "description": "this is a slb spec for test"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edfb53ca0678c" \
-X POST -d '{"params":
{"name": "slbGroup", "slbOfferingUuid": "f66b4cd06a2d3ae985e40514502c3ea3", "frontEnd
is a slb spec for test"}}' http://localhost:8080/zstack/v1/load-
balancers/slb/groups

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body(contained in the params structure)	The name of the SLB group.		4.0.0
slbOfferingUuid	String	body(contained in the params structure)	The UUID of the SLB offering.		4.0.0
frontEndL3NetworkUuid	String	body(contained in the params structure)	The frontend L3 network UUID.		4.0.0
backendL3NetworkUuids	List	body(contained in the params structure)	Optional. The backend L3 network UUID.		4.0.0
backendType	String	body(contained in the params structure)	Optional. The backend type.	VYOS	4.0.0
deployType	String	body(contained in the params structure)	Optional. The deployment type.	- NoHA - HA	4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
description	String	body(contained in the params structure)	Optional. The detailed description of the SLB group.		4.0.0
monitorIps	List	body(contained in the params structure)	Optional. The monitor ips.		5.1.0
resourceUuid	String	body(contained in the params structure)	Optional. The UUID of the SLB group.		4.0.0
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {}
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	SlbGroupInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the SLB group.	4.0.0
name	String	The name of the SLB group.	4.0.0
backendType	String		4.0.0
deployType	String		4.0.0
slbOfferingUuid	String		4.0.0
description	String	The detailed description of the SLB group.	4.0.0
createDate	Timestamp	The time when the SLB group was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the SLB group was last modified.	4.0.0
slbVms	List	See slbVms .	4.0.0
lbs	List	See lbs .	4.0.0
networks	List	See networks	4.0.0

#slbVms

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0
publicNetworkUuid	String		4.0.0
virtualRouterVips	List		4.0.0
applianceVmType	String		4.0.0
managementNetworkUuid	String		4.0.0
defaultRouteL3NetworkUuid	String		4.0.0
status	String		4.0.0
agentPort	Integer		4.0.0
haStatus	String		4.0.0
uuid	String	The VM UUID.	4.0.0
name	String	The name of the VM instance.	4.0.0
description	String	The detailed description of the VM instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
hostUuid	String	The host UUID.	4.0.0
lastHostUuid	String		4.0.0
instanceOfferingUuid	String	The instance offering UUID.	4.0.0

Name	Type	Description	Starting Version
rootVolumeUuid	String	The root volume UUID.	4.0.0
platform	String		4.0.0
defaultL3NetworkUuid	String		4.0.0
type	String		4.0.0
hypervisorType	String		4.0.0
memorySize	Long		4.0.0
cpuNum	Integer		4.0.0
cpuSpeed	Long		4.0.0
allocatorStrategy	String		4.0.0
createDate	Timestamp	The time when the VM instance was created.	4.0.0
lastOpDate	Timestamp	The time when the VM instance was last modified.	4.0.0
state	String		4.0.0
vmNics	List	See vmNics	4.0.0
allVolumes	List	See allVolumes	4.0.0
vmCdRoms	List	See vmCdRoms	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask.	4.0.0

Name	Type	Description	Starting Version
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The IP version.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The IP address UUID.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was used.	4.0.0
lastOpDate	Timestamp	The time when the was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The bare metal instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume.	4.0.0
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0

Name	Type	Description	Starting Version
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The CD-ROM UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
deviceId	Integer	The device ID.	4.0.0
isoUuid	String	The ISO image UUID.	4.0.0
isoInstallPath	String	The installation path of the ISO image.	4.0.0
name	String	The CD-ROM name.	4.0.0
description	String	The detailed description of the CD-ROM.	4.0.0
createDate	Timestamp	The time when the CD-ROM was created.	4.0.0
lastOpDate	Timestamp	The time when the CD-ROM was last modified.	4.0.0

#lbs

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0
name	String	The name of the load balancer.	4.0.0
uuid	String	The UUID of the load balancer.	4.0.0
description	String	The detailed description of the load balancer.	4.0.0

Name	Type	Description	Starting Version
state	String		4.0.0
type	String		4.0.0
vipUuid	String	The virtual IP UUID.	4.0.0
createDate	Timestamp	The time when the oad balancer was created.	4.0.0
lastOpDate	Timestamp	The time when the load balancer was last modified.	4.0.0
listeners	List	See listeners .	4.0.0

#listeners

Name	Type	Description	Starting Version
uuid	String	The listener UUID.	4.0.0
name	String	The name of the listener.	4.0.0
description	String	The detailed description of the listener.	4.0.0
loadBalancerUuid	String	The load balancer UUID.	4.0.0
instancePort	Integer		4.0.0
loadBalancerPort	Integer		4.0.0
protocol	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the listener was created.	4.0.0
lastOpDate	Timestamp	The time when the listener was last modified.	4.0.0
vmNicRefs	List	See vmNicRefs .	4.0.0
aclRefs	List	See aclRefs .	4.0.0
certificateRefs	List	See certificateRefs .	4.0.0
serverGroupRefs	List	See serverGroupRefs .	4.0.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
listenerUuid	String		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
status	String		4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The record ID.	4.0.0
listenerUuid	String	The listener UUID.	4.0.0
aclUuid	String	The UUID of the access control list (ACL).	4.0.0
type	String	The type of the ACL.	4.0.0
createDate	Timestamp	The time when the ACL was created.	4.0.0
lastOpDate	Timestamp	The time when the ACL was last modified.	4.0.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
listenerUuid	String		4.0.0
certificateUuid	String		4.0.0
createDate	Timestamp	The time when the certificate was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the certificate was last modified.	4.0.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	long		4.0.0
listenerUuid	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the server group was created.	4.0.0
lastOpDate	Timestamp	The time when the server group was last modified.	4.0.0

#networks

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0
I3NetworkUuid	String	The L3 network UUID.	4.0.0
I3NetworkCategory	String		4.0.0
I3NetworkType	String		4.0.0
type	String		4.0.0
createDate	Timestamp	The time when the network was created.	4.0.0
lastOpDate	Timestamp	The time when the network was last modified.	4.0.0

SDK Sample

Java SDK

```
CreateSlbGroupAction action = new CreateSlbGroupAction();
action.name = "slbGroup";
action.slbOfferingUuid = "f66b4cd06a2d3ae985e40514502c3ea3";
```

```

action.frontEndL3NetworkUuid = "307ab51e198a35bab0bcc517f849aa46";
action.backendType = "VYOS";
action.deployType = "NoHA";
action.description = "this is a slb spec for test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSlbGroupAction.Result res = action.call();

```

Python SDK

```

CreateSlbGroupAction action = CreateSlbGroupAction()
action.name = "slbGroup"
action.slbofferingUuid = "f66b4cd06a2d3ae985e40514502c3ea3"
action.backendType = "vyos"
action.deployType = "NoHA"
action.description = "this is a slb spec for test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSlbGroupAction.Result res = action.call()

```

5.4.1.11.49 DeleteSlbGroup

API Request

URLs

```
DELETE zstack/v1/load-balancers/slb/group/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/load-balancers/slb/group/
d0b541dcd7d230378a0d97e6c1e07d48

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the SLB group		4.0.0
deleteMode	String	body	Optional. The deletion mode.	• Permissive • Enforcing	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteSlbGroupAction action = new DeleteSlbGroupAction();
action.uuid = "d0b541dcd7d230378a0d97e6c1e07d48";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteSlbGroupAction.Result res = action.call();
```

Python SDK

```
DeleteSlbGroupAction action = DeleteSlbGroupAction()
action.uuid = "d0b541dcd7d230378a0d97e6c1e07d48"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteSlbGroupAction.Result res = action.call()
```

5.4.1.11.50 UpdateSlbGroup

API Request

URLs

```
PUT zstack/v1/load-balancers/slb/group/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSlbGroup": {
    "name": "slb",
    "description": "slb test",
    "slbOfferingUuid": "3996416dcab833258087ac86be993858"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSlbGroup":{"name":"slb","description":"slb test","slbOfferingUuid":"3996416dcab833258087ac86be993858"}}'
http://localhost:8080/zstack/v1/load-balancers/slb/group/
fa13412281f333469e8009c531ef9755/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the SLB group	.	4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body(contained in the updateSlbGroup structure)	Optional. The name of the SLB group.		4.0.0
description	String	body(contained in the updateSlbGroup structure)	Optional. The detailed description of the SLB group.		4.0.0
slbOfferingUuid	String	body(contained in the updateSlbGroup structure)	Optional. The UUID of the SLB offering.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "slb",
    "backendType": "vyos",
    "deployType": "direct",
    "description": "slb test"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	SlbGroupInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the SLB group.	4.0.0
name	String	The name of the SLB group.	4.0.0
backendType	String		4.0.0
deployType	String		4.0.0
slbOfferingUuid	String		4.0.0
description	String	The detailed description of the SLB group.	4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the SLB group was created.	4.0.0
lastOpDate	Timestamp	The time when the SLB group was last modified.	4.0.0
slbVms	List	See slbVms .	4.0.0
lbs	List	See lbs .	4.0.0
networks	List	See networks .	4.0.0

#slbVms

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0
publicNetworkUuid	String		4.0.0
virtualRouterVips	List		4.0.0
applianceVmType	String		4.0.0
managementNetworkUuid	String		4.0.0
defaultRouteL3NetworkUuid	String		4.0.0
status	String		4.0.0
agentPort	Integer		4.0.0
haStatus	String		4.0.0
uuid	String	The VM UUID.	4.0.0
name	String	The name of the VM instance.	4.0.0
description	String	The detailed description of the VM instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
hostUuid	String	The host UUID.	4.0.0

Name	Type	Description	Starting Version
lastHostUuid	String		4.0.0
instanceOfferingUuid	String	The instance offering UUID.	4.0.0
rootVolumeUuid	String	The root volume UUID.	4.0.0
platform	String		4.0.0
defaultL3NetworkUuid	String		4.0.0
type	String		4.0.0
hypervisorType	String		4.0.0
memorySize	Long		4.0.0
cpuNum	Integer		4.0.0
cpuSpeed	Long		4.0.0
allocatorStrategy	String		4.0.0
createDate	Timestamp	The time when the VM instance was created.	4.0.0
lastOpDate	Timestamp	The time when the VM instance was last modified.	4.0.0
state	String		4.0.0
vmNics	List	See vmNics .	4.0.0
allVolumes	List	See allVolumes .	4.0.0
vmCdRoms	List	See vmCdRoms .	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0

Name	Type	Description	Starting Version
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The IP version.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps .	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The IP address UUID.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was used.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The bare metal instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume.	4.0.0
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The CD-ROM UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
deviceId	Integer	The device ID.	4.0.0
isoUuid	String	The ISO image UUID.	4.0.0
isoInstallPath	String	The installation path of the ISO image.	4.0.0
name	String	The CD-ROM name.	4.0.0
description	String	The detailed description of the CD-ROM.	4.0.0
createDate	Timestamp	The time when the CD-ROM was created.	4.0.0
lastOpDate	Timestamp	The time when the CD-ROM was last modified.	4.0.0

#lbs

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0
name	String	The name of the load balancer.	4.0.0

Name	Type	Description	Starting Version
uuid	String	The UUID of the load balancer.	4.0.0
description	String	The detailed description of the load balancer.	4.0.0
state	String		4.0.0
type	String		4.0.0
vipUuid	String	The virtual IP UUID.	4.0.0
createDate	Timestamp	The time when the load balancer was created.	4.0.0
lastOpDate	Timestamp	The time when the load balancer was last modified.	4.0.0
listeners	List	See listeners .	4.0.0

#listeners

Name	Type	Description	Starting Version
uuid	String	The listener UUID.	4.0.0
name	String	The name of the listener.	4.0.0
description	String	The detailed description of the listener.	4.0.0
loadBalancerUuid	String	The load balancer UUID.	4.0.0
instancePort	Integer		4.0.0
loadBalancerPort	Integer		4.0.0
protocol	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the listener was created.	4.0.0
lastOpDate	Timestamp	The time when the listener was last modified.	4.0.0
vmNicRefs	List	See vmNicRefs .	4.0.0

Name	Type	Description	Starting Version
aclRefs	List	See aclRefs .	4.0.0
certificateRefs	List	See certificateRefs .	4.0.0
serverGroupRefs	List	See serverGroupRefs .	4.0.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
listenerUuid	String		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
status	String		4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The record ID.	4.0.0
listenerUuid	String	The listener UUID.	4.0.0
aclUuid	String	The UUID of the access control list (ACL).	4.0.0
type	String	The type of the ACL.	4.0.0
createDate	Timestamp	The time when the ACL was created.	4.0.0
lastOpDate	Timestamp	The time when the ACL was last modified.	4.0.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		4.0.0

Name	Type	Description	Starting Version
listenerUuid	String		4.0.0
certificateUuid	String		4.0.0
createDate	Timestamp	The time when the certificate was created.	4.0.0
lastOpDate	Timestamp	The time when the certificate was last modified.	4.0.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	long		4.0.0
listenerUuid	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the server group was created.	4.0.0
lastOpDate	Timestamp	The time when the server group was last modified.	4.0.0

#networks

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
l3NetworkCategory	String		4.0.0
l3NetworkType	String		4.0.0
type	String		4.0.0
createDate	Timestamp	The time when the network was created.	4.0.0
lastOpDate	Timestamp	The time when the network was last modified.	4.0.0

SDK Sample

Java SDK

```
UpdateSlbGroupAction action = new UpdateSlbGroupAction();
action.uuid = "fa13412281f333469e8009c531ef9755";
action.name = "slb";
action.description = "slb test";
action.slbofferingUuid = "3996416dcab833258087ac86be993858";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSlbGroupAction.Result res = action.call();
```

Python SDK

```
UpdateSlbGroupAction action = UpdateSlbGroupAction()
action.uuid = "fa13412281f333469e8009c531ef9755"
action.name = "slb"
action.description = "slb test"
action.slbofferingUuid = "3996416dcab833258087ac86be993858"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSlbGroupAction.Result res = action.call()
```

5.4.1.11.51 QuerySlbGroup

API Request

URLs

```
GET zstack/v1/load-balancers/slb/groups
```

```
GET zstack/v1/load-balancers/slb/groups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/load-balancers/slb/groups
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/load-balancers/slb/
groups/3cdd853e3e8d364b83f6e1e4965df7b0
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySlbGroup**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "slb",
      "backendType": "vyos",
      "deployType": "direct",
      "description": "slb test"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	See inventories .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current	4.0.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the SLB group.	4.0.0
name	String	The name of the SLB group.	4.0.0
backendType	String		4.0.0
deployType	String		4.0.0
slbOfferingUuid	String		4.0.0
description	String	The detailed description of the SLB group.	4.0.0
createDate	Timestamp	The time when the SLB group was created.	4.0.0
lastOpDate	Timestamp	The time when the SLB group was last modified.	4.0.0
slbVms	List	See slbVms .	4.0.0
lbs	List	See lbs .	4.0.0
networks	List	See networks .	4.0.0

#slbVms

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0
publicNetworkUuid	String		4.0.0
virtualRouterVips	List		4.0.0
applianceVmType	String		4.0.0
managementNetworkUuid	String		4.0.0

Name	Type	Description	Starting Version
defaultRouteL3NetworkUuid	String		4.0.0
status	String		4.0.0
agentPort	Integer		4.0.0
haStatus	String		4.0.0
uuid	String	The VM UUID.	4.0.0
name	String	The name of the VM instance.	4.0.0
description	String	The detailed description of the VM instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
hostUuid	String	The host UUID.	4.0.0
lastHostUuid	String		4.0.0
instanceOfferingUuid	String	The instance offering UUID.	4.0.0
rootVolumeUuid	String	The root volume UUID.	4.0.0
platform	String		4.0.0
defaultL3NetworkUuid	String		4.0.0
type	String		4.0.0
hypervisorType	String		4.0.0
memorySize	Long		4.0.0
cpuNum	Integer		4.0.0
cpuSpeed	Long		4.0.0
allocatorStrategy	String		4.0.0
createDate	Timestamp	The time when the VM instance was created.	4.0.0
lastOpDate	Timestamp	The time when the VM instance was last modified.	4.0.0

Name	Type	Description	Starting Version
state	String		4.0.0
vmNics	List	See vmNics .	4.0.0
allVolumes	List	See allVolumes .	4.0.0
vmCdRoms	List	See vmCdRoms .	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The IP version.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps .	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The IP address UUID.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was used.	4.0.0
lastOpDate	Timestamp	The time when the was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The bare metal instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0

Name	Type	Description	Starting Version
type	String	The type of the volume.	4.0.0
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The CD-ROM UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
deviceId	Integer	The device ID.	4.0.0
isoUuid	String	The ISO image UUID.	4.0.0
isoInstallPath	String	The installation path of the ISO image.	4.0.0

Name	Type	Description	Starting Version
name	String	The CD-ROM name.	4.0.0
description	String	The detailed description of the CD-ROM.	4.0.0
createDate	Timestamp	The time when the CD-ROM was created.	4.0.0
lastOpDate	Timestamp	The time when the CD-ROM was last modified.	4.0.0

#lbs

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0
name	String	The name of the load balancer.	4.0.0
uuid	String	The UUID of the load balancer.	4.0.0
description	String	The detailed description of the load balancer.	4.0.0
state	String		4.0.0
type	String		4.0.0
vipUuid	String	The virtual IP UUID.	4.0.0
createDate	Timestamp	The time when the load balancer was created.	4.0.0
lastOpDate	Timestamp	The time when the load balancer was last modified.	4.0.0
listeners	List	See listeners	4.0.0

#listeners

Name	Type	Description	Starting Version
uuid	String	The listener UUID.	4.0.0
name	String	The name of the listener.	4.0.0

Name	Type	Description	Starting Version
description	String	The detailed description of the listener.	4.0.0
loadBalancerUuid	String	The load balancer UUID.	4.0.0
instancePort	Integer		4.0.0
loadBalancerPort	Integer		4.0.0
protocol	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the listener was created.	4.0.0
lastOpDate	Timestamp	The time when the listener was last modified.	4.0.0
vmNicRefs	List	See vmNicRefs .	4.0.0
aclRefs	List	See aclRefs .	4.0.0
certificateRefs	List	See certificateRefs .	4.0.0
serverGroupRefs	List	See serverGroupRefs .	4.0.0

#vmNicRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
listenerUuid	String		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
status	String		4.0.0
createDate	Timestamp	The time when the NIC was added to the VM instance.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#aclRefs

Name	Type	Description	Starting Version
id	Long	The record ID.	4.0.0
listenerUuid	String	The listener UUID.	4.0.0
aclUuid	String	The UUID of the access control list (ACL).	4.0.0
type	String	The type of the ACL.	4.0.0
createDate	Timestamp	The time when the ACL was created.	4.0.0
lastOpDate	Timestamp	The time when the ACL was last modified.	4.0.0

#certificateRefs

Name	Type	Description	Starting Version
id	Long		4.0.0
listenerUuid	String		4.0.0
certificateUuid	String		4.0.0
createDate	Timestamp	The time when the certificate was created.	4.0.0
lastOpDate	Timestamp	The time when the certificate was last modified.	4.0.0

#serverGroupRefs

Name	Type	Description	Starting Version
id	long		4.0.0
listenerUuid	String		4.0.0
serverGroupUuid	String		4.0.0
createDate	Timestamp	The time when the server group was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the server group was last modified.	4.0.0

#networks

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
l3NetworkCategory	String		4.0.0
l3NetworkType	String		4.0.0
type	String		4.0.0
createDate	Timestamp	The time when the network was created.	4.0.0
lastOpDate	Timestamp	The time when the network was last modified.	4.0.0

SDK Sample

Java SDK

```
QuerySlbGroupAction action = new QuerySlbGroupAction();
action.conditions = asList("uuid=8751fa7f60f4394ea89b9197961113f2");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySlbGroupAction.Result res = action.call();
```

Python SDK

```
QuerySlbGroupAction action = QuerySlbGroupAction()
action.conditions = ["uuid=067ab1149fd733359870c11f10398cfd"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QuerySlbGroupAction.Result res = action.call()
```

5.4.1.11.52 CreateSlbOffering

API Request

URLs

```
POST zstack/v1/instance-offerings/slb
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "zoneUuid": "bdbae55ce73b3e2ab8a4ae3a6df0b287",
    "managementNetworkUuid": "7661f1f6d5a63d6eb3b9c3890ab3f9bb",
    "imageUuid": "2bae0841f4c63f128efcf66d095d73b0",
    "name": "SLB-Offering",
    "cpuNum": 2.0,
    "memorySize": 1024.0,
    "sortKey": 0.0,
    "type": "SLB"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"zoneUuid":"bdbae55ce73b3e2ab8a4ae3a6df0b287","managementNetworkUuid":"7661f1f6d5a63d6eb3b9c3890ab3f9bb",
"imageUuid":"2bae0841f4c63f128efcf66d095d73b0",
"name":"SLB-Offering","cpuNum":2.0,"memorySize":1024.0,"sortKey":0.0,"type":"SLB"}}'
http://localhost:8080/zstack/v1/instance-offerings/slb
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
zoneUuid	String	body(contained in the params structure)	The zone UUID.		4.0.0
management NetworkUuid	String	body(contained in the params structure)	The management network UUID.		4.0.0
imageUuid	String	body(contained in the params structure)	The image UUID.		4.0.0
name	String	body(contained in the params structure)	The name of the SLB offering.		4.0.0
description	String	body(contained in the params structure)	Optional. The detailed description of the SLB offering.		4.0.0
cpuNum	int	body(contained in the params structure)			4.0.0
memorySize	long	body(contained in the params structure)			4.0.0
allocatorStrategy	String	body(contained in the params structure)	Optional.		4.0.0
sortKey	int	body(contained in the params structure)	Optional.		4.0.0
type	String	body(contained in the params structure)	Optional.		4.0.0
resourceUuid	String	body(contained in the params structure)	Optional. The UUID of the SLB offering.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3b0af4671cc93f619ef326a3c99d825c",
    "name": "instanceOffering1",
    "cpuNum": 2.0,
    "cpuSpeed": 1.0,
    "type": "UserVm",
    "allocatorStrategy": "Mevoco",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	InstanceOfferingInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	4.0.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the instance offering.	4.0.0
name	String	The name of the instance offering.	4.0.0
description	String	The detailed description of the instance offering.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
cpuSpeed	Integer	The processing speed of the CPU.	4.0.0
memorySize	Long	The memory size.	4.0.0
type	String	The type of the instance offering.	4.0.0
allocatorStrategy	String	The allocation policy.	4.0.0
sortKey	Integer		4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the instance offering was created.	4.0.0
lastOpDate	Timestamp	The time when the instance offering was last modified.	4.0.0
state	String	The state of the instance offering.	4.0.0

SDK Sample

Java SDK

```
CreateSlbOfferingAction action = new CreateSlbOfferingAction();
action.zoneUuid = "bdbae55ce73b3e2ab8a4ae3a6df0b287";
action.managementNetworkUuid = "7661f1f6d5a63d6eb3b9c3890ab3f9bb";
action.imageUuid = "2bae0841f4c63f128efcf66d095d73b0";
action.name = "SLB-Offering";
action.cpuNum = 2.0;
action.memorySize = 1024.0;
action.sortKey = 0.0;
action.type = "SLB";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSlbOfferingAction.Result res = action.call();
```

Python SDK

```
CreateSlbOfferingAction action = CreateSlbOfferingAction()
action.zoneUuid = "bdbae55ce73b3e2ab8a4ae3a6df0b287"
action.managementNetworkUuid = "7661f1f6d5a63d6eb3b9c3890ab3f9bb"
action.imageUuid = "2bae0841f4c63f128efcf66d095d73b0"
action.name = "SLB-Offering"
action.cpuNum = 2.0
action.memorySize = 1024.0
action.sortKey = 0.0
action.type = "SLB"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateSlbOfferingAction.Result res = action.call()
```

5.4.1.11.53 QuerySlbOffering

API Request

URLs

```
GET zstack/v1/instance-offerings/slb
```

```
GET zstack/v1/instance-offerings/slb/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/instance-offerings/slb
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/instance-offerings/slb/
cab5a4776ee936938d2cdd08860ee50a
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySlbOffering**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "managementNetworkUuid": "fdd51745e9ee3a4cb5bca03cf021c22f",
      "zoneUuid": "305d0c8b5c5a3edd81a641911126c332",
      "imageUuid": "b2f980076c3e3e6f8e9f3d4fd22bb7fb",
      "name": "SLB-Offering",
      "cpuNum": 2.0,
      "cpuSpeed": 1.0,
      "memorySize": 1024.0,
      "type": "SLB"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	See inventories .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventories

Name	Type	Description	Starting Version
management NetworkUuid	String	The management network UUID.	4.0.0

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
uuid	String	The record UUID.	4.0.0
name	String	The name of the SLB offering.	4.0.0
description	String	The detailed description of the SLB offering.	4.0.0
cpuNum	Integer		4.0.0
cpuSpeed	Integer		4.0.0
memorySize	Long		4.0.0
type	String		4.0.0
allocatorStrategy	String		4.0.0
sortKey	Integer		4.0.0
createDate	Timestamp	The time when the SLB offering was created.	4.0.0
lastOpDate	Timestamp	The time when the SLB offering was last modified.	4.0.0
state	String		4.0.0

SDK Sample

Java SDK

```
QuerySlbOfferingAction action = new QuerySlbOfferingAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySlbOfferingAction.Result res = action.call();
```

Python SDK

```
QuerySlbOfferingAction action = QuerySlbOfferingAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QuerySlbOfferingAction.Result res = action.call()
```

5.4.1.11.54 CreateSlbInstance

API Request

URLs

```
POST zstack/v1/load-balancers/slb/instances
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "SlbInstance",
    "slbGroupUuid": "9f4fcda488f9346ca9c8ea9243d6d8e3",
    "description": "this is a slb for test"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"SlbInstance","slbGroupUuid":"9f4fcda488f9346ca9c8ea9243d6d8e3","description":"this is a slb for test"}}' http://localhost:8080/zstack/v1/load-balancers/slb/instances
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body(contained in the params structure)	The name of the SLB group .		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
slbGroupUuid	String	body(contained in the params structure)	The UUID of the SLB group .		4.0.0
description	String	body(contained in the params structure)	Optional. The detailed description of the SLB group .		4.0.0
zoneUuid	List	body(contained in the params structure)	Optional. The zone UUID		4.0.0
clusterUuid	String	body(contained in the params structure)	Optional. The cluster UUID.	• VYOS	4.0.0
hostUuid	String	body(contained in the params structure)	Optional. The host UUID.	• Direct	4.0.0
resourceUuid	String	body(contained in the params structure)	Optional. The instance UUID .		4.0.0
tagUuids	String	body(contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {}
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	SlbVmInstanceInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
slbGroupUuid	String		4.0.0

Name	Type	Description	Starting Version
publicNetworkUuid	String		4.0.0
virtualRouterVips	List		4.0.0
applianceVmType	String		4.0.0
managementNetworkUuid	String		4.0.0
defaultRouteL3NetworkUuid	String		4.0.0
status	String		4.0.0
agentPort	Integer		4.0.0
haStatus	String		4.0.0
uuid	String	The UUID of the SLB instance.	4.0.0
name	String	The name of the SLB instance.	4.0.0
description	String	The detailed description of the SLB instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
hostUuid	String	The host UUID.	4.0.0
lastHostUuid	String		4.0.0
instanceOfferingUuid	String	The UUID of the instance offering.	4.0.0
rootVolumeUuid	String	The UUID of the root volume.	4.0.0
platform	String		4.0.0
defaultL3NetworkUuid	String		4.0.0
type	String		4.0.0
hypervisorType	String		4.0.0
memorySize	Long		4.0.0
cpuNum	Integer		4.0.0

Name	Type	Description	Starting Version
cpuSpeed	Long		4.0.0
allocatorStrategy	String		4.0.0
createDate	Timestamp	The time when the SLB instance was created.	4.0.0
lastOpDate	Timestamp	The time when the SLB instance was last modified.	4.0.0
state	String		4.0.0
vmNics	List	See vmNics .	4.0.0
allVolumes	List	See allVolumes .	4.0.0
vmCdRoms	List	See vmCdRoms .	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
vmInstanceId	String	The VM instance UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The IP version.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps .	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The IP address UUID.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The VM NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was used.	4.0.0
lastOpDate	Timestamp	The time when the was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0

Name	Type	Description	Starting Version
vmInstanceUuid	String	The bare metal instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume .	4.0.0
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume .	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The CD-ROM UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
deviceId	Integer	The device ID.	4.0.0
isoUuid	String	The ISO image UUID.	4.0.0
isoInstallPath	String	The installation path of the ISO image.	4.0.0
name	String	The CD-ROM name.	4.0.0
description	String	The detailed description of the CD-ROM.	4.0.0
createDate	Timestamp	The time when the CD-ROM was created.	4.0.0
lastOpDate	Timestamp	The time when the CD-ROM was last modified.	4.0.0

SDK Sample

Java SDK

```
CreateSlbInstanceAction action = new CreateSlbInstanceAction();
action.name = "SlbInstance";
action.slbGroupUuid = "9f4fcda488f9346ca9c8ea9243d6d8e3";
action.description = "this is a slb for test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSlbInstanceAction.Result res = action.call();
```

Python SDK

```
CreateSlbInstanceAction action = CreateSlbInstanceAction()
action.name = "SlbInstance"
action.slbGroupUuid = "9f4fcda488f9346ca9c8ea9243d6d8e3"
action.description = "this is a slb for test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateSlbInstanceAction.Result res = action.call()
```

5.4.1.12 IPsec Operations

5.4.1.12.1 CreateIPsecConnection

API Request

URLs

```
POST zstack/v1/ipsec
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "Test-IPSec",
    "vipUuid": "cefa2f4e56ef33e496ccbb5879850f76",
    "peerAddress": "100.64.10.10",
    "authMode": "psk",
    "authKey": "auth",
    "idType": "ip",
    "localId": "1.1.1.1",
    "remoteId": "2.2.2.2",
    "l3NetworkUuid": "a4097ba23a7e38339029e1839bb415e1",
    "peerCidrs": [
      "192.168.100.0/24"
    ],
    "ikeVersion": "ikev2",
    "ikeAuthAlgorithm": "sha256",
    "ikeEncryptionAlgorithm": "aes-256",
    "ikeDhGroup": 2.0,
    "ikeLifeTime": 86400.0,
    "policyAuthAlgorithm": "sha256",
    "policyEncryptionAlgorithm": "aes-256",
    "pfs": "dh-group14",
    "policyMode": "tunnel",
    "transformProtocol": "esp",
    "lifeTime": 3600.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"Test-IPSec","vipUuid":"cefa2f4e56ef33e496ccbb5879850f76","peerAddress":"100.64.10.10",["192.168.100.0/24"],"ikeVersion":"ikev2","ikeAuthAlgorithm":"sha256","ikeEncryptgroup14","policyMode":"tunnel","transformProtocol":"esp","lifeTime":3600.0}}'
http://localhost:8080/zstack/v1/ipsec
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
l3NetworkUuid	String	body (contained in the params structure)	Optional. The L3 network UUID.		2.3
peerAddress	String	body (contained in the params structure)	The remote network address.		0.6
authMode	String	body (contained in the params structure)	Optional. The authentication mode.	• psk • certs	0.6
authKey	String	body (contained in the params structure)	The authentication key.		0.6
idType	String	body (contained in the params structure)	The ID configuration method.	• ip • name • fqdn	4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
vipUuid	String	body (contained in the params structure)	The VIP UUID .		0.6
localId	String	body (contained in the params structure)	Optional. The local ID.		4.5.0
remoteId	String	body (contained in the params structure)	Optional. The remote ID.		4.5.0
peerCidrs	List	body (contained in the params structure)	Optional. The detination network Cidrs.		4.5.0
ikeVersion	String	body (contained in the params structure)	Optional. The IKE version.	- ike - ikev1 - ikev2	4.5.0
ikeAuthAlgorithm	String	body (contained in the params structure)	Optional. The IKE authentication algorithm.	- md5 - sha1 - sha256 - sha384 - sha512	0.6
ikeEncryptionAlgorithm	String	body (contained in the params structure)	Optional. The IKE encryption algorithm.	3des - aes-128 - aes-192 - aes-256	0.6
ikeDhGroup	int	body (contained in the params structure)	Optional. The IKE DH Group .		4.5.0
ikeLifeTime	int	body (contained in	Optional. The IKE lifetime.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
policyAuth Algorithm	String	body (contained in the params structure)	Optional. The ESP authentication algorithm.	- md5 - sha1 - sha256 - sha384 - sha512	0.6
policyEncryptionAlgorithm	String	body (contained in the params structure)	Optional. The ESP encryption algorithm.	3des - aes-128 - aes-192 - aes-256	0.6
pfs	String	body (contained in the params structure)	Optional. The perfect forward secrecy.	- none - dh-group0 - dh-group2 - dh-group5 - dh-group14 - dh-group15 - dh-group16 - dh-group17 - dh-group18 - dh-group19 - dh-group20 - dh-group21 - dh-group22 - dh-group23 - dh-group24 - dh-group25 - dh-group26	4.5.0
policyMode	String	body (contained in the params structure)	Optional. The policy mode.	- tunnel - transport	0.6
transformProtocol	String	body (contained in	Optional. The transform protocol.	- esp - ah	0.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)		• ah-esp	
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		0.6
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.5.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-IPSec",
    "peerAddress": "100.64.10.10",
    "authKey": "auth",
    "vipUuid": "6a33d0d912263fd7a47d036eead9a27f",
    "status": "Connecting",
    "ikeLifeTime": 0.0,
    "lifeTime": 0.0,
    "peerCidrs": [
      {
        "uuid": "199b04405d1e3fef83fd67a7a1f77bb3",
        "cidr": "192.168.100.0/24",
        "connectionUuid": "6deaa1c0ffd43f8eb3ebe2e8e7e66811",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "l3NetworkRefs": [
      {}
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	IPsecConnectionInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
peerAddress	String	The remote network address.	4.5.0
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key.	4.5.0
vipUuid	String	The VIP UUID.	0.6
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0
ikeVersion	String	The IKE version.	4.5.0
idType	String	The ID configuration method.	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0
createDate	Timestamp	The creation date.	0.6

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	0.6
peerCidrs	List	See peerCidrs .	0.6
l3NetworkRefs	List	See l3NetworkRefs .	2.3

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
cidr	String		0.6
connectionUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#l3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
connectionUuid	String		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```

CreateIPsecConnectionAction action = new CreateIPsecConnectionAction
();
action.name = "Test-IPSec";
action.vipUuid = "cefa2f4e56ef33e496ccbb5879850f76";
action.peerAddress = "100.64.10.10";
action.authMode = "psk";
action.authKey = "auth";
action.idType = "ip";
action.localId = "1.1.1.1";
action.remoteId = "2.2.2.2";
action.l3NetworkUuid = "a4097ba23a7e38339029e1839bb415e1";
action.peerCidrs = asList("192.168.100.0/24");

```

```

action.ikeVersion = "ikev2";
action.ikeAuthAlgorithm = "sha256";
action.ikeEncryptionAlgorithm = "aes-256";
action.ikeDhGroup = 2.0;
action.ikeLifeTime = 86400.0;
action.policyAuthAlgorithm = "sha256";
action.policyEncryptionAlgorithm = "aes-256";
action.pfs = "dh-group14";
action.policyMode = "tunnel";
action.transformProtocol = "esp";
action.lifeTime = 3600.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateIPsecConnectionAction.Result res = action.call();

```

Python SDK

```

CreateIPsecConnectionAction action = CreateIPsecConnectionAction()
action.name = "Test-IPSec"
action.vipUuid = "cefa2f4e56ef33e496ccbb5879850f76"
action.peerAddress = "100.64.10.10"
action.authMode = "psk"
action.authKey = "auth"
action.idType = "ip"
action.localId = "1.1.1.1"
action.remoteId = "2.2.2.2"
action.l3NetworkUuid = "a4097ba23a7e38339029e1839bb415e1"
action.peerCidrs = [192.168.100.0/24]
action.ikeVersion = "ikev2"
action.ikeAuthAlgorithm = "sha256"
action.ikeEncryptionAlgorithm = "aes-256"
action.ikeDhGroup = 2.0
action.ikeLifeTime = 86400.0
action.policyAuthAlgorithm = "sha256"
action.policyEncryptionAlgorithm = "aes-256"
action.pfs = "dh-group14"
action.policyMode = "tunnel"
action.transformProtocol = "esp"
action.lifeTime = 3600.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateIPsecConnectionAction.Result res = action.call()

```

5.4.1.12.2 DeleteIPsecConnection

API Request

URLs

```
DELETE zstack/v1/ipsec/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \

```



```
-X DELETE http://localhost:8080/zstack/v1/
ipsec/7176e70d92953235998cce8b486e2467
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		4.5.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteIPsecConnectionAction action = new DeleteIPsecConnectionAction
();
action.uuid = "2935596566fa421f833a801d501dbb53";
action.deleteMode = "Permissive";
action.sessionId = "7392673bd2244ad2a63280e81f9a7014";
DeleteIPsecConnectionAction.Result res = action.call();
```

Python SDK

```
DeleteIPsecConnectionAction action = DeleteIPsecConnectionAction()
action.uuid = "808078c31bdd499591bc009b8ae3446f"
action.deleteMode = "Permissive"
action.sessionId = "fcafdabd9a5e47c5ae7ff92c121173f9"
```

```
DeleteIPsecConnectionAction.Result res = action.call()
```

5.4.1.12.3 QueryIPSecConnection

API Request

URLs

```
GET zstack/v1/ipsec
GET zstack/v1/ipsec/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/ipsec
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/ipsec/
ea540aa23c0b36a887cd93a912fd0c32
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryIPSecConnection`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "Test-IPSec",
      "peerAddress": "100.64.10.10",
      "authKey": "auth",
      "vipUuid": "ca0f405c79ea3b53aa588f58ed10e410",
      "ikeLifeTime": 0.0,
      "lifeTime": 0.0,
      "peerCidrs": [
        {
          "uuid": "72744840ae243518859730e99ea42157",
          "cidr": "192.168.100.0/24",
          "connectionUuid": "9d832d652fc732d6a5cebe1d8173c6c9",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ]
    },
    {
      "name": "Test-IPSec",
      "peerAddress": "100.64.10.10",
      "authKey": "auth",
      "vipUuid": "ca0f405c79ea3b53aa588f58ed10e410",
      "ikeLifeTime": 0.0,
      "lifeTime": 0.0,
      "peerCidrs": [
        {
          "uuid": "72744840ae243518859730e99ea42157",
          "cidr": "192.168.100.0/24",
          "connectionUuid": "9d832d652fc732d6a5cebe1d8173c6c9",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ]
    }
  ],
  "networkRefs": [
    {
      "name": "Test-IPSec",
      "peerAddress": "100.64.10.10",
      "authKey": "auth",
      "vipUuid": "ca0f405c79ea3b53aa588f58ed10e410",
      "ikeLifeTime": 0.0,
      "lifeTime": 0.0,
      "peerCidrs": [
        {
          "uuid": "72744840ae243518859730e99ea42157",
          "cidr": "192.168.100.0/24",
          "connectionUuid": "9d832d652fc732d6a5cebe1d8173c6c9",
          "createDate": "Nov 14, 2017 10:20:57 PM",
          "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
      ]
    }
  ]
}
```

```

    }
  ]
}

```

Name	Type	Description	Starting Version
success	boolean		4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
peerAddress	String	The remote network address.	4.5.0
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key.	4.5.0
vipUuid	String	The VIP UUID.	0.6
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0
ikeVersion	String	The IKE version.	4.5.0
idType	String	The ID configuration method.	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
peerCidrs	List	See peerCidrs .	0.6
I3NetworkRefs	List	See I3NetworkRefs .	2.3

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
cidr	String		0.6
connectionUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#I3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
connectionUuid	String		2.3
I3NetworkUuid	String	The L3 network UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
QueryIPSecConnectionAction action = new QueryIPSecConnectionAction();
action.conditions = asList();
action.sessionId = "2da0145074b749de95a5f7e6197dedf5";
QueryIPSecConnectionAction.Result res = action.call();
```

Python SDK

```
QueryIPSecConnectionAction action = QueryIPSecConnectionAction()
action.conditions = []
```

```
action.sessionId = "39df08f032b9490a853c60158dee9140"
QueryIPSecConnectionAction.Result res = action.call()
```

5.4.1.12.4 UpdateIPsecConnection

API Request

URLs

```
PUT zstack/v1/ipsec/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateIPsecConnection": {
    "name": "test Ipsec",
    "description": "info",
    "deleteMode": "Permissive"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateIPsecConnection":{"name":"test
Ipsec","description":"info"}}' \
http://localhost:8080/zstack/v1/ipsec/1bcf0b898cf33f05b29edeb54a87ed82
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the	Optional. The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		updateIPsecConnection structure)			
description	String	body (contained in the updateIPsecConnection structure)	Optional. The detailed description of the resource.		0.6
deleteMode	String	body (contained in the updateIPsecConnection structure)	Optional.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-IPSec",
    "description": "desc info ",
    "peerAddress": "100.64.10.10",
    "authKey": "auth",
    "vipUuid": "7c94b57b6daa38c9b6862f11101e9612",
    "ikeLifeTime": 0.0,
    "lifeTime": 0.0,
    "peerCidrs": [
      {
        "uuid": "4796b27ab42d3baba893ea3d34c723e4",
        "cidr": "192.168.100.0/24",
        "connectionUuid": "2ce0380d4a5e3aed95b1511682926aeb",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "l3NetworkRefs": [
      {}
    ]
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	IPsecConnectionInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
peerAddress	String	The remote network address.	4.5.0
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key.	4.5.0
vipUuid	String	The VIP UUID.	0.6
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0
ikeVersion	String	The IKE version.	4.5.0
idType	String	The ID configuration method.	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
peerCidrs	List	See peerCidrs .	0.6
l3NetworkRefs	List	See l3NetworkRefs .	2.3

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
cidr	String		0.6
connectionUuid	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#l3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
connectionUuid	String		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
UpdateIPsecConnectionAction action = new UpdateIPsecConnectionAction
();
action.uuid = "cedcb7a02f1548cbb8a68665cab0b191";
action.name = "test Ipsec";
action.description = "info";
action.deleteMode = "Permissive";
action.sessionId = "4e74102f098948cf97781ee6604b1571";
```

```
UpdateIPsecConnectionAction.Result res = action.call();
```

Python SDK

```
UpdateIPsecConnectionAction action = UpdateIPsecConnectionAction()
action.uuid = "dba5bbf127124fe2a3def62bcb96743d"
action.name = "test Ipsec"
action.description = "info"
action.deleteMode = "Permissive"
action.sessionId = "cc93dbb3278c4a699f2f1635eb756caf"
UpdateIPsecConnectionAction.Result res = action.call()
```

5.4.1.12.5 ChangIPSecConnectionState

API Request

URLs

```
PUT zstack/v1/ipsec/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeIPSecConnectionState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeIPSecConnectionState":{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/
ipsec/76424bb25d3a37c9961fff1116bc06da/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
stateEvent	String	body (contained in the changeIPSecConnectionState structure)		• enable • disable	2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "13b5a2cd8c5c30a9a47ba95802cf4e1a",
    "name": "IPSec-1",
    "state": "Enabled",
    "ikeLifeTime": 0.0,
    "lifeTime": 0.0
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	IPsecConnectionInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
peerAddress	String	The remote network address.	4.5.0
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key .	4.5.0
vipUuid	String	The VIP UUID.	2.3

Name	Type	Description	Starting Version
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0
ikeVersion	String	The IKE version.	4.5.0
idType	String	The ID configuration method.	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
peerCidrs	List	See peerCidrs .	2.3
I3NetworkRefs	List	See I3NetworkRefs .	2.3

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
cidr	String		2.3

Name	Type	Description	Starting Version
connectionUuid	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

#l3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
connectionUuid	String		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
ChangeIPSecConnectionStateAction action = new ChangeIPSecConnectionStateAction();
action.uuid = "76424bb25d3a37c9961fff1116bc06da";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeIPSecConnectionStateAction.Result res = action.call();
```

Python SDK

```
ChangeIPSecConnectionStateAction action = ChangeIPSecConnectionStateAction()
action.uuid = "76424bb25d3a37c9961fff1116bc06da"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeIPSecConnectionStateAction.Result res = action.call()
```

5.4.1.12.6 ReconnectIPsecConnection

API Request

URLs

```
PUT zstack/v1/ipsec/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectIPsecConnection": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectIPsecConnection":{}}' \
http://localhost:8080/zstack/v1/
ipsec/5186dbf43843358ea9e7420c4af27338/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.5.0
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. The user tag.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-IPSec",
    "description": "desc info ",
    "peerAddress": "100.64.10.10",
    "authKey": "auth",
    "vipUuid": "37c2aa27aff4338abb41fb5bdaa90f77",
    "status": "Connecting",
    "ikeLifeTime": 0.0,
    "lifeTime": 0.0,
    "peerCidrs": [
      {
        "uuid": "0cf06fba80743d09bb31845d0b187197",
        "cidr": "192.168.100.0/24",
        "connectionUuid": "654dedd65de8345cae7042a375451146",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "l3NetworkRefs": [
      {}
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventory	IPsecConnectionInventory	See inventory	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. See error	4.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.0
name	String	The resource name.	4.5.0
description	String	The detailed description of the resource.	4.5.0
peerAddress	String	The remote network address.	4.5.0

Name	Type	Description	Starting Version
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key.	4.5.0
vipUuid	String	The VIP UUID.	4.5.0
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0
ikeVersion	String	The IKE version.	4.5.0
idType	String	The ID configuration method.	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0
peerCidrs	List	See peerCidrs	4.5.0
I3NetworkRefs	List	See I3NetworkRefs	4.5.0

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.0
cidr	String		4.5.0
connectionUuid	String		4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0

#l3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.0
connectionUuid	String		4.5.0
l3NetworkUuid	String	The L3 network UUID.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
ReconnectIPsecConnectionAction action = new ReconnectIPsecConnectionAction();
action.uuid = "5186dbf43843358ea9e7420c4af27338";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ReconnectIPsecConnectionAction.Result res = action.call();
```

Python SDK

```
ReconnectIPsecConnectionAction action = ReconnectIPsecConnectionAction()
action.uuid = "5186dbf43843358ea9e7420c4af27338"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ReconnectIPsecConnectionAction.Result res = action.call()
```

5.4.1.12.7 ChangelIPsecConnection

API Request

URLs

```
PUT zstack/v1/ipsec/config/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeIPsecConnection": {
    "peerAddress": "2.2.2.2",
    "authMode": "psk",
    "authKey": "12345678",
    "idType": "ip",
    "localId": "1.1.1.1",
    "remoteId": "2.2.2.2",
    "ikeVersion": "ikev2",
    "ikeAuthAlgorithm": "sha256",
    "ikeEncryptionAlgorithm": "aes-256",
    "ikeDhGroup": 2.0,
```

```

    "ikeLifeTime": 86400.0,
    "policyAuthAlgorithm": "sha256",
    "policyEncryptionAlgorithm": "aes-256",
    "pfs": "dh-group14",
    "policyMode": "tunnel",
    "transformProtocol": "esp",
    "lifeTime": 3600.0
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeIPsecConnection":
{"peerAddress":"2.2.2.2","authMode":"psk","authKey":"12345678","idType":"ip","loc
group14","policyMode":"tunnel","transformProtocol":"esp","lifeTime":3600.0}}'
http://localhost:8080/zstack/v1/ipsec/config/
fe981c6d20243102b6939d5eada78ef9

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.5.0
peerAddress	String	body (contained in the changeIPsecConnection structure)	The remote network address.		4.5.0
authMode	String	body (contained in the changeIPsecConnection structure)	Optional. The authentication mode.	- psk - certs	4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
authKey	String	body (contained in the changeIPsecConnection structure)	The authentication key.		4.5.0
idType	String	body (contained in the changeIPsecConnection structure)	Optional. The ID configuration method.	- ip - name - fqdn	4.5.0
localId	String	body (contained in the changeIPsecConnection structure)	Optional. The local ID.		4.5.0
remoteId	String	body (contained in the changeIPsecConnection structure)	Optional. The remote ID.		4.5.0
ikeVersion	String	body (contained in the changeIPsecConnection structure)	Optional. The IKE version.	- ike - ikev1 - ikev2	4.5.0
ikeAuthAlgorithm	String	body (contained in the changeIPsecConnection structure)	Optional. The IKE authentication algorithm.	- md5 - sha1 - sha256 - sha384 - sha512	4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
ikeEncryptionAlgorithm	String	body (contained in the changeliPse cConnection structure)	Optional. The IKE encryption algorithm.	• 3des • aes-128 • aes-192 • aes-256	4.5.0
ikeDhGroup	int	body (contained in the changeliPse cConnection structure)	Optional. The IKE DH group.		4.5.0
ikeLifeTime	int	body (contained in the changeliPse cConnection structure)	Optional. The IKE lifetime.		4.5.0
policyAuthAlgorithm	String	body (contained in the changeliPse cConnection structure)	Optional. The ESP authentication algorithm.	• md5 • sha1 • sha256 • sha384 • sha512	4.5.0
policyEncryptionAlgorithm	String	body (contained in the changeliPse cConnection structure)	Optional. The ESP encryption algorithm.	• 3des • aes-128 • aes-192 • aes-256	4.5.0
pfs	String	body (contained in the changeliPse cConnection structure)	Optional. The PFS DH Group.	• none • dh-group2 • dh-group5 • dh-group14 • dh-group15 • dh-group16 • dh-group17 • dh-group18	4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
				- dh-group19 - dh-group20 - dh-group21 - dh-group22 - dh-group23 - dh-group24 - dh-group25 - dh-group26	
policyMode	String	body (contained in the changeIPsecConnection structure)	Optional. The encryption mode.	- tunnel - transport	4.5.0
transformP rotocol	String	body (contained in the changeIPsecConnection structure)	Optional. The security protocol.	- esp - ah - ah-esp	4.5.0
lifeTime	int	body (contained in the changeIPsecConnection structure)	Optional. The IPsec lifetime.		4.5.0
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. The user tag.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "Test-IPSec",
    "description": "desc info ",
    "peerAddress": "100.64.10.10",
```



```

"authKey": "auth",
"vipUuid": "9f580de9b80c32feb149be989f5c9158",
"ikeLifeTime": 0.0,
"lifeTime": 0.0,
"peerCidrs": [
  {
    "uuid": "c97d7be1bae43cac8fad2099ab9d4ef3",
    "cidr": "192.168.100.0/24",
    "connectionUuid": "5700953056a03c589a264faa51db6a8f",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"l3NetworkRefs": [
  {}
]
}

```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventory	IPsecConnectionInventory	See inventory	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.0
name	String	The resource name.	4.5.0
description	String	The detailed description of the resource.	4.5.0
peerAddress	String	The remote network address.	4.5.0
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key.	4.5.0
vipUuid	String	The VIP UUID.	4.5.0

Name	Type	Description	Starting Version
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0
ikeVersion	String	The IKE version.	4.5.0
idType	String	The ID configuration method.	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0
peerCidrs	List	See peerCidrs	4.5.0
I3NetworkRefs	List	See I3NetworkRefs	4.5.0

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.0
cidr	String		4.5.0

Name	Type	Description	Starting Version
connectionUuid	String		4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0

#l3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.0
connectionUuid	String		4.5.0
l3NetworkUuid	String	The L3 network UUID.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.5.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

SDK Sample

Java SDK

```
ChangeIPsecConnectionAction action = new ChangeIPsecConnectionAction
();
action.uuid = "fe981c6d20243102b6939d5eada78ef9";
action.peerAddress = "2.2.2.2";
action.authMode = "psk";
action.authKey = "12345678";
action.idType = "ip";
action.localId = "1.1.1.1";
action.remoteId = "2.2.2.2";
action.ikeVersion = "ikev2";
action.ikeAuthAlgorithm = "sha256";
action.ikeEncryptionAlgorithm = "aes-256";
action.ikeDhGroup = 2.0;
action.ikeLifeTime = 86400.0;
action.policyAuthAlgorithm = "sha256";
action.policyEncryptionAlgorithm = "aes-256";
action.pfs = "dh-group14";
action.policyMode = "tunnel";
action.transformProtocol = "esp";
action.lifeTime = 3600.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeIPsecConnectionAction.Result res = action.call();
```

Python SDK

```
ChangeIPsecConnectionAction action = ChangeIPsecConnectionAction()
action.uuid = "fe981c6d20243102b6939d5eada78ef9"
action.peerAddress = "2.2.2.2"
action.authMode = "psk"
action.authKey = "12345678"
action.idType = "ip"
action.localId = "1.1.1.1"
action.remoteId = "2.2.2.2"
action.ikeVersion = "ikev2"
action.ikeAuthAlgorithm = "sha256"
action.ikeEncryptionAlgorithm = "aes-256"
action.ikeDhGroup = 2.0
action.ikeLifeTime = 86400.0
action.policyAuthAlgorithm = "sha256"
action.policyEncryptionAlgorithm = "aes-256"
action.pfs = "dh-group14"
action.policyMode = "tunnel"
action.transformProtocol = "esp"
action.lifeTime = 3600.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeIPsecConnectionAction.Result res = action.call()
```

5.4.1.12.8 AttachL3NetworksToIPsecConnection

API Request

URLs

```
POST zstack/v1/ipsec/{uuid}/l3networks
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "l3NetworkUuids": [
      "4b0779efacdc39a5b2dd4799e2452720"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"l3NetworkUuids":
["4b0779efacdc39a5b2dd4799e2452720"]}}' \
http://localhost:8080/zstack/v1/
ipsec/8f6fa5c86fd13968b8d8666f4b117aca/l3networks
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
l3NetworkUuids	List	body (contained in			2.3

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
resourceUuid	String	body (contained in the params structure)	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3293505dd7de3a2aacca821c4a9d8b5e",
    "name": "Test-IPSec",
    "peerAddress": "100.64.10.10",
    "authKey": "auth",
    "vipUuid": "58d827fb56cb3fc394c89429c28c29a4",
    "ikeLifeTime": 0.0,
    "lifeTime": 0.0,
    "peerCidrs": [
      {
        "uuid": "185878e63f1c39c48de641f55f8a870b",
        "cidr": "192.168.100.0/24",
        "connectionUuid": "3293505dd7de3a2aacca821c4a9d8b5e",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "l3NetworkRefs": [
      {
        "uuid": "a1e9c14d5d9736c0885b6cc67238873e",
        "connectionUuid": "3293505dd7de3a2aacca821c4a9d8b5e",
        "l3NetworkUuid": "43253fb59d8c36b49f684278747bf209",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	IPsecConnectionInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.3
peerAddress	String	The remote network address.	4.5.0
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key.	4.5.0
vipUuid	String	The VIP UUID.	2.3
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0
ikeVersion	String	The IKE version.	4.5.0
idType	String	The ID configuration method.ID	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0
createDate	Timestamp	The creation date.	2.3

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	2.3
peerCidrs	List	See peerCidrs .	2.3
l3NetworkRefs	List	See l3NetworkRefs .	2.3

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
cidr	String		2.3
connectionUuid	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

#l3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
connectionUuid	String		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
AttachL3NetworksToIPsecConnectionAction action = new AttachL3NetworksToIPsecConnectionAction();
action.uuid = "8f6fa5c86fd13968b8d8666f4b117aca";
action.l3NetworkUuids = asList("4b0779efacdc39a5b2dd4799e2452720");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachL3NetworksToIPsecConnectionAction.Result res = action.call();
```

Python SDK

```
AttachL3NetworksToIPsecConnectionAction action = AttachL3NetworksToIPsecConnectionAction()
```

```

action.uuid = "8f6fa5c86fd13968b8d8666f4b117aca"
action.l3NetworkUids = [4b0779efacdc39a5b2dd4799e2452720]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachL3NetworksToIPsecConnectionAction.Result res = action.call()

```

5.4.1.12.9 DetachL3NetworksFromIPsecConnection

API Request

URLs

```
DELETE zstack/v1/ipsec/{uuid}/l3networks
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/ipsec/
ad4996bae0fb374bbbf696422f64e4aa/l3networks

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
l3NetworkUids	List	body			4.5.0
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```

{
  "inventory": {
    "uuid": "8897085a1f673f71abe4b5972959a341",
    "name": "Test-IPSec",
    "peerAddress": "100.64.10.10",
    "authKey": "auth",
    "vipUuid": "bda6c7ab0bfa37ae8fd0404c62bb7782",
    "ikeLifeTime": 0.0,

```

```

    "lifeTime": 0.0,
    "peerCidrs": [
      {
        "uuid": "6756721235283be68ff449db51ad480b",
        "cidr": "192.168.100.0/24",
        "connectionUuid": "8897085a1f673f71abe4b5972959a341",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "l3NetworkRefs": [
      {
        "uuid": "7c982a34282a3d5ea7436a80a0d38d0c",
        "connectionUuid": "8897085a1f673f71abe4b5972959a341",
        "l3NetworkUuid": "a110262802763e35a695935852b7b470",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}

```

Name	Type	Description	Starting Version
success	boolean		4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	IPsecConnectionInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
peerAddress	String	The remote network address.	4.5.0
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key.	4.5.0
vipUuid	String	The VIP UUID.	2.3
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0

Name	Type	Description	Starting Version
ikeVersion	String	The IKE version.	4.5.0
idType	String	The ID configuration method.	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
peerCidrs	List	See peerCidrs .	2.3
I3NetworkRefs	List	See I3NetworkRefs .	2.3

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
cidr	String		2.3
connectionUuid	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

#I3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
connectionUuid	String		2.3
I3NetworkUuid	String	The L3 network UUID.	2.3
createDate	Timestamp	The creation date.	2.3

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
DetachL3NetworksFromIPsecConnectionAction action = new
DetachL3NetworksFromIPsecConnectionAction();
action.uuid = "ad4996bae0fb374bbbf696422f64e4aa";
action.l3NetworkUuids = asList("a835701f0df63d14ad1281eb9cc1a768");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachL3NetworksFromIPsecConnectionAction.Result res = action.call();
```

Python SDK

```
DetachL3NetworksFromIPsecConnectionAction action = DetachL3Ne
tworksFromIPsecConnectionAction()
action.uuid = "ad4996bae0fb374bbbf696422f64e4aa"
action.l3NetworkUuids = [a835701f0df63d14ad1281eb9cc1a768]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachL3NetworksFromIPsecConnectionAction.Result res = action.call()
```

5.4.1.12.10 AddRemoteCidrsToIPsecConnection

API Request

URLs

```
POST zstack/v1/ipsec/{uuid}/remote-cidrs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "peerCidrs": [
      "192.168.100.0/24"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"peerCidrs":["192.168.100.0/24"]}}' \
http://localhost:8080/zstack/v1/
ipsec/053658b061363df4be557d13ee0baaef/remote-cidrs
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
peerCidrs	List	body (contained in the params structure)			2.3
resourceUuid	String	body (contained in the params structure)	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "55c06a7088a5341c8b4ebed294282bfe",
    "name": "Test-IPSec",
    "peerAddress": "100.64.10.10",
    "authKey": "auth",
    "vipUuid": "a66955e81e893c0f81effba08f1f2f94",
    "ikeLifeTime": 0.0,
    "lifeTime": 0.0,
    "peerCidrs": [
      {
        "uuid": "15b9949bc0553aeeaf53e96a1b437e7c",
        "cidr": "192.168.100.0/24",
        "connectionUuid": "55c06a7088a5341c8b4ebed294282bfe",
```

```

        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    ],
    "l3NetworkRefs": [
        {
            "uuid": "1223ba4c4d0533feb975ff45027ab47f",
            "connectionUuid": "55c06a7088a5341c8b4ebd294282bfe",
            "l3NetworkUuid": "163595b272913065b082d890a68d96a7",
            "createDate": "Nov 14, 2017 10:20:57 PM",
            "lastOpDate": "Nov 14, 2017 10:20:57 PM"
        }
    ]
}

```

Name	Type	Description	Starting Version
success	boolean		4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	IPsecConnectionInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
peerAddress	String	The remote network address.	4.5.0
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key.	2.3
vipUuid	String	The VIP UUID.	2.3
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0
ikeVersion	String	The IKE version.	4.5.0

Name	Type	Description	Starting Version
idType	String	The ID configuration method.ID	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
peerCidrs	List	See peerCidrs .	2.3
I3NetworkRefs	List	See I3NetworkRefs .	2.3

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
cidr	String		2.3
connectionUuid	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

#I3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
connectionUuid	String		2.3
I3NetworkUuid	String	The L3 network UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
AddRemoteCidrsToIPsecConnectionAction action = new AddRemoteCidrsToIPsecConnectionAction();
action.uuid = "053658b061363df4be557d13ee0baaef";
action.peerCidrs = asList("192.168.100.0/24");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddRemoteCidrsToIPsecConnectionAction.Result res = action.call();
```

Python SDK

```
AddRemoteCidrsToIPsecConnectionAction action = AddRemoteCidrsToIPsecConnectionAction()
action.uuid = "053658b061363df4be557d13ee0baaef"
action.peerCidrs = [192.168.100.0/24]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddRemoteCidrsToIPsecConnectionAction.Result res = action.call()
```

5.4.1.12.11 RemoveRemoteCidrsFromIPsecConnection

API Request

URLs

```
DELETE zstack/v1/ipsec/{uuid}/remote-cidrs?peerCidrs={peerCidrs}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/ipsec/2428fc093ea93b6fb4eda5cc921da355/remote-cidrs
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
peerCidrs	List	body			4.5.0
systemTags	List	body	Optional. The system tags.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a069f4ee49c835869e046204ff5eba8f",
    "name": "Test-IPSec",
    "peerAddress": "100.64.10.10",
    "authKey": "auth",
    "vipUuid": "6af41f780abb3c69b122c29cc3948bab",
    "ikeLifeTime": 0.0,
    "lifeTime": 0.0,
    "peerCidrs": [
      {
        "uuid": "d0cb54ce25053f629623baef345f4bd0",
        "cidr": "192.168.100.0/24",
        "connectionUuid": "a069f4ee49c835869e046204ff5eba8f",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "l3NetworkRefs": [
      {
        "uuid": "4e539c9cd56b37d4bb27c6244169fc55",
        "connectionUuid": "a069f4ee49c835869e046204ff5eba8f",
        "l3NetworkUuid": "7c63cc15a47b3c90a0350bd8c6e6906e",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	IPsecConnectionInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
peerAddress	String	The remote network address.	4.5.0
authMode	String	The authentication mode.	4.5.0
authKey	String	The authentication key.	4.5.0
vipUuid	String	The VIP UUID.	2.3

Name	Type	Description	Starting Version
ikeAuthAlgorithm	String	The IKE authentication algorithm.	4.5.0
ikeEncryptionAlgorithm	String	The IKE encryption algorithm.	4.5.0
ikeDhGroup	Integer	The IKE DH group.	4.5.0
policyAuthAlgorithm	String	The ESP authentication algorithm.	4.5.0
policyEncryptionAlgorithm	String	The ESP encryption algorithm.	4.5.0
pfs	String	The PFS DH group.	4.5.0
policyMode	String	The encryption mode.	4.5.0
transformProtocol	String	The security protocol.	4.5.0
ikeVersion	String	The IKE version.	4.5.0
idType	String	The ID configuration method.	4.5.0
localId	String	The local ID.	4.5.0
remoteId	String	The remote ID.	4.5.0
state	String	The running state.	4.5.0
status	String	The ready status.	4.5.0
ikeLifeTime	int	The IKE lifetime.	4.5.0
lifeTime	int	The IPsec lifetime.	4.5.0
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
peerCidrs	List	See peerCidrs .	2.3
I3NetworkRefs	List	See I3NetworkRefs .	2.3

#peerCidrs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
cidr	String		2.3

Name	Type	Description	Starting Version
connectionUuid	String		2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

#l3NetworkRefs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
connectionUuid	String		2.3
l3NetworkUuid	String	The L3 network UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
RemoveRemoteCidrsFromIPsecConnectionAction action = new
RemoveRemoteCidrsFromIPsecConnectionAction();
action.uuid = "2428fc093ea93b6fb4eda5cc921da355";
action.peerCidrs = asList("192.168.100.0/24");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveRemoteCidrsFromIPsecConnectionAction.Result res = action.call();
```

Python SDK

```
RemoveRemoteCidrsFromIPsecConnectionAction action = RemoveRemo
teCidrsFromIPsecConnectionAction()
action.uuid = "2428fc093ea93b6fb4eda5cc921da355"
action.peerCidrs = [192.168.100.0/24]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveRemoteCidrsFromIPsecConnectionAction.Result res = action.call()
```

5.4.1.13 Shared Bandwidth Operations

5.4.1.13.1 CreateVpcSharedQos

API Request

URLs

```
POST zstack/v1/vips/sharedqos
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "sharedQos",
    "description": "sharedQos description",
    "vpcUuid": "65be8c77be7e3e548075ec8384b7784e",
    "l3NetworkUuid": "960b85b1e9933f198e342fd338badcf7",
    "bandwidth": 1048576
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"sharedQos","description":"sharedQos
description","vpcUuid":"65be8c77be7e3e548075ec8384b7784e","l3NetworkUuid":"960b8
http://localhost:8080/zstack/v1/vips/sharedqos
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in	Optional.The description of the resource.		5.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
vpcUuid	String	body (contained in the params structure)			5.1.0
l3NetworkUuid	String	body (contained in the params structure)	The UUID of the L3 network .		5.1.0
bandwidth	Long	body (contained in the params structure)	Optional.		5.1.0
resourceUuid	String	body (contained in the params structure)	Optional.The resource UUID.		5.1.0
tagUuids	List	body (contained in the params structure)	Optional.		5.1.0
systemTags	List	body	Optional.The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "c4e66289d5a03734b38492b4ca2fde64",
    "l3NetworkUuid": "ed1507b673f433cd8d3be4f652d621bd",
    "vpcUuid": "ed008a7099ef3137bf58b85232cbf804"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventory	VpcSharedQosInventory	See inventory	5.1.0
error	ErrorCode	Error code. If it is not null, it means the operation failed. If the operation is successful, this field is null. See error	5.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	5.1.0
name	String	The name of the resource.	5.1.0
description	String	The detailed description of the resource.	5.1.0
l3NetworkUuid	String	The UUID of the L3 network.	5.1.0
vpcUuid	String		5.1.0
bandwidth	Long		5.1.0
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
vips	List	See vips	5.1.0

#vips

Name	Type	Description	Starting Version
id	Long		5.1.0
sharedQosUuid	String		5.1.0
vipUuid	String	VIP UUID.	5.1.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```

CreateVpcSharedQosAction action = new CreateVpcSharedQosAction();
action.name = "sharedQos";
action.description = "sharedQos description";
action.vpcUuid = "65be8c77be7e3e548075ec8384b7784e";
action.l3NetworkUuid = "960b85b1e9933f198e342fd338badcf7";
action.bandwidth = 1048576;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
CreateVpcSharedQosAction.Result res = action.call();
```

Python SDK

```
CreateVpcSharedQosAction action = CreateVpcSharedQosAction()
action.name = "sharedQos"
action.description = "sharedQos description"
action.vpcUuid = "65be8c77be7e3e548075ec8384b7784e"
action.l3NetworkUuid = "960b85b1e9933f198e342fd338badcf7"
action.bandwidth = 1048576
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVpcSharedQosAction.Result res = action.call()
```

5.4.1.13.2 DeleteVpcSharedQos

API Request

URLs

```
DELETE zstack/v1/vips/sharedqos/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vips/sharedqos/
ce4a4da17366304baa95bd30dbbee4be
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.1.0
deleteMode	String	body	Optional.	• Permissive / Enforcing • Permissive	5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVpcSharedQosAction action = new DeleteVpcSharedQosAction();
action.uuid = "ce4a4da17366304baa95bd30dbbee4be";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVpcSharedQosAction.Result res = action.call();
```

Python SDK

```
DeleteVpcSharedQosAction action = DeleteVpcSharedQosAction()
action.uuid = "ce4a4da17366304baa95bd30dbbee4be"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteVpcSharedQosAction.Result res = action.call()
```

5.4.1.13.3 QueryVpcSharedQos

API Request

URLs

```
GET zstack/v1/vips/sharedqos
GET zstack/v1/vips/sharedqos/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vips/sharedqos?
q=uuid=b15a3578c3933804bece500f809ebdcc
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/vips/  
sharedqos/862a52a400c23d5cbccef438c957a5f8
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVpcSharedQos`, and pressing the **Tab** key.

API Response

Sample Response

```
{  
  "inventories": [  
    {  
      "uuid": "f7f905bb22ca3c7fbb3f683737718289",  
      "name": "shared-qos-name",  
      "description": "description",  
      "l3NetworkUuid": "06ce8adcb1ff3f05803aeaa47765b088",  
      "vpcUuid": "f3de6c11b69038f194708d0e70ed7774",  
      "bandwidth": 1000,  
      "createDate": "Apr 16, 2024 6:06:18 PM",  
      "lastOpDate": "Apr 16, 2024 6:06:18 PM"  
    }  
  ]  
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventory	VpcSharedQosInventory	See inventories .	5.1.0
error	ErrorCode	Error code. If it is not null, it means the operation failed. If the operation is successful, this field is null. For more information, see error .	5.1.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0

Name	Type	Description	Starting Version
l3NetworkUuid	String	UUID of L3 Network.	5.1.0
vpcUuid	String	The VPC vRouter UUID.	5.1.0
bandwidth	Long	The bandwidth size.	5.1.0
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
vips	List	See vips .	5.1.0

#vips

Name	Type	Description	Starting Version
id	Long		5.1.0
sharedQosUuid	String		5.1.0
vipUuid	String	VIP UUID	5.1.0
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```
QueryVpcSharedQosAction action = new QueryVpcSharedQosAction();
action.conditions = asList("uuid=777d07580d263f95a881ad8523c42806");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVpcSharedQosAction.Result res = action.call();
```

Python SDK

```
QueryVpcSharedQosAction action = QueryVpcSharedQosAction()
action.conditions = ["uuid=0b5a3b10bab03322a30cbbbcff00a17c"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVpcSharedQosAction.Result res = action.call()
```

5.4.1.13.4 ChangeVpcSharedQos

API Request

URLs

```
POST zstack/v1/vips/sharedqos/{sharedQosUuid}/bandwidth/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

body

```
{
  "params": {
    "bandwidth": 2097152
  },
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"bandwidth":2097152}}' http://
localhost:8080/zstack/v1/vips/
sharedqos/221cb152078d30fca39190556ceec683/bandwidth/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sharedQosUuid	String	url	The shared bandwidth UUID.		5.1.0
bandwidth	Long	body (contained in the params structure)	The bandwidth size.		5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "2286509f52943894bf33f6aa917ffc29",
    "l3NetworkUuid": "2ceb65d30e7e3deab7db9355e7dee0dd",
    "vpcUuid": "6ab0048c38103fbe9efc8eb8f8ff5bbf"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.0

Name	Type	Description	Starting Version
inventory	VpcSharedQosInventory	See inventory .	5.1.0
error	ErrorCode	Error code. If it is not null, it means the operation failed. If the operation is successful, this field is null. For more information, see error .	5.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
l3NetworkUuid	String	UUID of L3 Network.	5.1.0
vpcUuid	String		5.1.0
bandwidth	Long		5.1.0
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0
vips	List	See vips .	5.1.0

#vips

Name	Type	Description	Starting Version
id	Long		5.1.0
sharedQosUuid	String		5.1.0
vipUuid	String	VIP UUID	5.1.0
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```

ChangeVpcSharedQosBandwidthAction action = new ChangeVpcSharedQosBandwidthAction();
action.sharedQosUuid = "221cb152078d30fca39190556ceec683";
action.bandwidth = 2097152;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeVpcSharedQosBandwidthAction.Result res = action.call();

```

Python SDK

```

ChangeVpcSharedQosBandwidthAction action = ChangeVpcSharedQosBandwidthAction()
action.sharedQosUuid = "221cb152078d30fca39190556ceec683"
action.bandwidth = 2097152
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"

```

```
ChangeVpcSharedQosBandwidthAction.Result res = action.call()
```

5.4.1.13.5 UpdateVpcSharedQos

API Request

URLs

```
PUT zstack/v1/vips/sharedqos/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

body

```
{
  "updateVpcSharedQos": {
    "name": "Updated Shared QoS",
    "description": "This is an updated description for the Shared QoS"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVpcSharedQos":{"name":"Updated Shared QoS","description":"This is an updated description for the Shared QoS."}}' http://localhost:8080zstack/v1/vips/sharedqos/ab6601fa1df73c05a562fcde20f889ce/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.1.0
name	String	body (contained in the	The resource name.		5.1.0

Name	Type	Location	Description	Optional Value	Starting Version
		updateVpcSharedQos (structure)			
description	String	body (contained in the updateVpcSharedQos structure)	Optional. The detailed description of the resource.		
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "979cefee9f9d334c881c4329756517a5",
    "l3NetworkUuid": "3e8164ec051030dfadfd1046e6042745",
    "vpcUuid": "7895911a13203a00ba5cec0362bc199f"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.0
inventory	VpcSharedQosInventory	See inventory .	5.1.0
error	ErrorCode	Error code. If it is not null, it means the operation failed. If the operation is successful, this field is null. For more information, see error .	5.1.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.0
name	String	The resource name.	5.1.0
description	String	The detailed description of the resource.	5.1.0
l3NetworkUuid	String	The UUID of the L3 network.	5.1.0
vpcUuid	String		5.1.0
bandwidth	Long		5.1.0
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation time.	5.1.0
vips	List	See vips .	5.1.0

#vips

Name	Type	Description	Starting Version
id	Long		5.1.0
sharedQosUuid	String		5.1.0
vipUuid	String	VIP UUID	5.1.0
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation date.	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0

Name	Type	Description	Starting Version
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

SDK Sample

Java SDK

```
UpdateVpcSharedQosAction action = new UpdateVpcSharedQosAction();
action.uuid = "ab6601fa1df73c05a562fcde20f889ce";
action.name = "Updated Shared QoS";
action.description = "This is an updated description for the Shared QoS.";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVpcSharedQosAction.Result res = action.call();
```

Python SDK

```
UpdateVpcSharedQosAction action = UpdateVpcSharedQosAction()
action.uuid = "ab6601fa1df73c05a562fcde20f889ce"
action.name = "Updated Shared QoS"
action.description = "This is an updated description for the Shared QoS."
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateVpcSharedQosAction.Result res = action.call()
```

5.4.1.13.6 AttachVipToVpcSharedQos

API Request

URLs

```
POST zstack/v1/vips/sharedqos/{sharedQosUuid}/vips
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vipLists": [
      "175767a19c2d376183863dee3408b1f6"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
url -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"vipLists":
["175767a19c2d376183863dee3408b1f6"]}}' http://localhost:8080/zstack/
v1/vips/sharedqos/d4559c8d9f76391b9d8eb30f74698949/vips
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sharedQosUuid	String	url			5.1.0
vipLists	List	body (contained in the params structure)			5.1.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AttachVipToVpcSharedQosAction action = new AttachVipToVpcSharedQosAction();
action.sharedQosUuid = "d4559c8d9f76391b9d8eb30f74698949";
action.vipLists = asList("175767a19c2d376183863dee3408b1f6");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachVipToVpcSharedQosAction.Result res = action.call();
```

Python SDK

```
AttachVipToVpcSharedQosAction action = AttachVipToVpcSharedQosAction()
action.sharedQosUuid = "d4559c8d9f76391b9d8eb30f74698949"
action.vipLists = [175767a19c2d376183863dee3408b1f6]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachVipToVpcSharedQosAction.Result res = action.call()
```

5.4.1.13.7 DetachVipFromVpcSharedQos

API Request

URLs

```
POST zstack/v1/vips/sharedqos/{sharedQosUuid}/vips
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/vips/
sharedqos/85800cac6a5f36c89867c24c73001f10/vips?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sharedQosUuid	String	url			5.1.0
vipLists	List	body			5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DetachVipFromVpcSharedQosAction action = new DetachVipFromVpcSharedQosAction();
action.sharedQosUuid = "85800cac6a5f36c89867c24c73001f10";
action.vipLists = asList("3358e3d0355b3b498ed4d80e7e40d6b3");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachVipFromVpcSharedQosAction.Result res = action.call();
```

Python SDK

```
DetachVipFromVpcSharedQosAction action = DetachVipFromVpcSharedQosAction()
action.sharedQosUuid = "85800cac6a5f36c89867c24c73001f10"
action.vipLists = ["3358e3d0355b3b498ed4d80e7e40d6b3"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachVipFromVpcSharedQosAction.Result res = action.call()
```

5.5 CloudFormation Operations

5.5.1 AddStackTemplate

API Request

URLs

```
POST zstack/v1/cloudformation/template
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "stack",
    "description": "description",
    "type": "zstack",
    "templateContent": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\": { \"Type\": \"String\", \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\": { \"Type\": \"String\", \"DefaultValue\": \"instanceoffering-123\", \"Description\": \"The instance offering uuid\" }, \"l3NetworkUuid\": { \"Type\": \"String\", \"Description\": \"The l3 network uuid\" }, \"DiskOfferingUuid\": { \"Type\": \"String\", \"Description\": \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\": { \"Type\": \"String\", \"Description\": \"primarystorage for initial
```

```

disk\" }, {"HostUuid\": { \"Type\": \"String\", \"
Description\": \"host for initial disk\" } }, { \"Resources\": {
  \"WebServer1\": { \"Type\": \"ZStack::Resource::VmInstance\",
    \"Properties\": { \"name\": \"vm\", \"imageUuid\": {
      \"Ref\": \"imageUuid\", \"instanceOfferingUuid\": {\"Ref\":
        \"instanceOfferingUuid\", \"l3NetworkUuids\": [{\"Ref\": \"
l3NetworkUuid\"}] }, \"DeletionPolicy\": \"Retain\" },
    \"WebServer2\": { \"Type\": \"ZStack::Resource::VmInstance
\", \"Properties\": { \"name\": \"vm-2\", \"
imageUuid\": {\"Ref\": \"imageUuid\", \"instanceOfferingUuid
\": {\"Ref\": \"instanceOfferingUuid\", \"l3NetworkUuids
\": [{\"Ref\": \"l3NetworkUuid\"}] }, \"DependsOn\": [{\"
Ref\": \"WebServer1\"}] }, \"EmptyVolume\": { \"Type\":
  \"ZStack::Resource::DataVolume\", \"Properties\": { \"
name\": \"empty-volume\", \"diskOfferingUuid\": {\"Ref\":
  \"DiskOfferingUuid\", \"primaryStorageUuid\": {\"Ref\": \"
PrimaryStorageUuid\", \"systemTags\": [{\"Fn::Join\": [\":\",
  [\"localStorage\", \"hostUuid\", {\"Ref\": \"HostUuid\"}]]}],
  \"DependsOn\": [{\"Ref\": \"WebServer2\"}] }, \"AttachData
VolumeToVm\": { \"Type\": \"ZStack::Action::AttachDataVolumeToVm
\", \"Properties\": { \"vmInstanceUuid\": {\"Fn::GetAtt
\": [\"WebServer1\", \"uuid\"]}, \"volumeUuid\": {\"Fn::GetAtt
\": [\"EmptyVolume\", \"uuid\"]} }, \"Outputs\": {
  \"VmInstance\": { \"Description\": \"print vm instance\",
    \"Value\": {\"Ref\": \"WebServer1\"} } } }
  },
  \"systemTags\": [],
  \"userTags\": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"stack","description":"description","type":"zstack","templateContent":{"
  \"ZStackTemplateFormatVersion\": \"2018-06-18\", \"Description
\": \"Example for create a group vm instance in zstack.\",
  \"Parameters\": { \"imageUuid\": { \"Type\": \"String\",
    \"Description\": \"Image Uuid, represents the image resource
to startup one vm instance\" }, \"instanceOfferingUuid
\": { \"Type\": \"String\", \"DefaultValue\":
  \"instanceoffering-123\", \"Description\": \"The instance
offering uuid\" }, \"l3NetworkUuid\": { \"Type\":
  \"String\", \"Description\": \"The l3 network uuid\" },
  \"DiskOfferingUuid\": { \"Type\": \"String\", \"Description
\": \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\":
  { \"Type\": \"String\", \"Description\": \"primarystorage
for initial disk\" }, \"HostUuid\": { \"Type\":
  \"String\", \"Description\": \"host for initial disk\"
  } }, \"Resources\": { \"WebServer1\": { \"Type\":
  \"ZStack::Resource::VmInstance\", \"Properties\": {
    \"name\": \"vm\", \"imageUuid\": {\"Ref\": \"imageUuid\",
    \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid

```

```
\",
    \"l3NetworkUids\\\": [{\\\"Ref\\\": \\\"l3NetworkUuid\\\"]}
  ],
  \"DeletionPolicy\\\": \\\"Retain\\\",
  \"WebServer2\\\": {
    \"Type\\\": \\\"ZStack::Resource::VmInstance\\\",
    \"Properties\\\": {
      \"name\\\" : \\\"vm-2\\\",
      \"imageUuid\\\" : {\\\"Ref\\\"
    \"imageUuid\\\"},
    \"instanceOfferingUuid\\\": {\\\"Ref\\\":
    \"instanceOfferingUuid\\\"},
    \"l3NetworkUids\\\": [{\\\"Ref\\\"
    \"l3NetworkUuid\\\"]}
  },
  \"DependsOn\\\": [{\\\"Ref\\\":
    \"WebServer1\\\"}]
  },
  \"EmptyVolume\\\": {
    \"Type\\\":
    \"ZStack::Resource::DataVolume\\\",
    \"Properties\\\": {
      \"name\\\" : \\\"empty-volume\\\",
      \"diskOfferingUuid\\\":
      {\\\"Ref\\\": \\\"DiskOfferingUuid\\\"},
      \"primaryStorageUuid
    \": {\\\"Ref\\\": \\\"PrimaryStorageUuid\\\"},
      \"systemTags\\\":
      [{\\\"Fn::Join\\\": [\\\"::\\\", [\\\"localStorage\\\", \\\"hostUuid\\\", {\\\"Ref\\\"
    \": \\\"HostUuid\\\"}]}]]]
    },
    \"DependsOn\\\": [{\\\"Ref\\\":
    \"WebServer2\\\"}]
  },
  \"AttachDataVolumeToVm\\\": {
    \"Type\\\":
    \"ZStack::Action::AttachDataVolumeToVm\\\",
    \"Properties\\\": {
      \"vmInstanceUuid\\\": {\\\"Fn::GetAtt\\\": [\\\"WebServer1\\\", \\\"uuid
    \\\"],
      \"volumeUuid\\\": {\\\"Fn::GetAtt\\\" : [\\\"EmptyVolume\\\",
    \\\"uuid\\\"]}
    }
  },
  \"Outputs\\\": {
    \"VmInstance\\\": {
      \"Description\\\" : \\\"print vm instance\\\",
      \"Value\\\" : {\\\"Ref\\\":
    \"WebServer1\\\"}
    }
  }}}' \\
http://localhost:8080/zstack/v1/cloudformation/template
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.5.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.5.0
type	String	body (contained in the params structure)	Optional. The template type . Default type: zstack.	zstack	2.5.0
templateContent	String	body (contained in the params structure)	The template content, which is a JSON string.		2.5.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.5.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		2.5.0
userTags	List	body	Optional. The user tags.		2.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "9e3dd776d9ed3c048b74b930aadded5d",
    "name": "stack",
    "type": "zstack",
    "version": "2018-06-18",
    "state": true,
    "content": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18
\", \"Description\" : \"Example for create a group vm instance in
zstack.\", \"Parameters\" : { \"imageUuid\" : { \"Type\" : \"
String\", \"Description\" : \"Image Uuid, represents the image
resource to startup one vm instance\" }, \"instanceOfferingUuid
\": { \"Type\" : \"String\", \"DefaultValue\" : \"instanceof
fering-123\", \"Description\" : \"The instance offering uuid\"
}, \"l3NetworkUuid\" : { \"Type\" : \"String\", \"
Description\" : \"The l3 network uuid\" }, \"DiskOfferingUuid
\": { \"Type\" : \"String\", \"Description\" : \"DiskOfferi
ng for empty disk\" }, \"PrimaryStorageUuid\" : { \"Type
\": \"String\", \"Description\" : \"primarystorage for initial
disk\" }, \"HostUuid\" : { \"Type\" : \"String\", \"
Description\" : \"host for initial disk\" } }, \"Resources\" : {
  \"WebServer1\" : { \"Type\" : \"ZStack::Resource::VmInstance\",
    \"Properties\" : { \"name\" : \"vm\", \"imageUuid\" :
{ \"Ref\" : \"imageUuid\" }, \"instanceOfferingUuid\" : { \"Ref\" :
\"instanceOfferingUuid\" }, \"l3NetworkUuids\" : [ { \"Ref\" : \"
l3NetworkUuid\" } ] }, \"DeletionPolicy\" : \"Retain\" },
  \"WebServer2\" : { \"Type\" : \"ZStack::Resource::VmInstance
\", \"Properties\" : { \"name\" : \"vm-2\", \"
imageUuid\" : { \"Ref\" : \"imageUuid\" }, \"instanceOfferingUuid
\": { \"Ref\" : \"instanceOfferingUuid\" }, \"l3NetworkUuids
\": [ { \"Ref\" : \"l3NetworkUuid\" } ] }, \"DependsOn\" : [ { \"
Ref\" : \"WebServer1\" } ] }, \"EmptyVolume\" : { \"Type\" :
\"ZStack::Resource::DataVolume\", \"Properties\" : { \"
name\" : \"empty-volume\", \"diskOfferingUuid\" : { \"Ref\" :
\"DiskOfferingUuid\" }, \"primaryStorageUuid\" : { \"Ref\" : \"
PrimaryStorageUuid\" }, \"systemTags\" : [ { \"Fn::Join\" : [ \"::\",
[ \"localStorage\", \"hostUuid\", { \"Ref\" : \"HostUuid\" } ] ] } ],
  \"DependsOn\" : [ { \"Ref\" : \"WebServer2\" } ] }, \"AttachData
VolumeToVm\" : { \"Type\" : \"ZStack::Action::AttachDataVolumeToVm
\", \"Properties\" : { \"vmInstanceUuid\" : { \"Fn::GetAtt
\" : [ \"WebServer1\", \"uuid\" ] }, \"volumeUuid\" : { \"Fn::GetAtt
\" : [ \"EmptyVolume\", \"uuid\" ] } } }, \"Outputs\" : {
  \"VmInstance\" : { \"Description\" : \"print vm instance\",
    \"Value\" : { \"Ref\" : \"WebServer1\" } } } } }
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0
inventory	StackTemplateInventory	See inventory .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.5.0

Name	Type	Description	Starting Version
name	String	The resource name.	2.5.0
description	String	The detailed description of the resource.	2.5.0
type	String	The template content, which is a JSON string.	2.5.0
version	String	The template version.	2.5.0
state	Boolean	Whether the template is available.	2.5.0
content	String	The template content, which is a JSON string.	2.5.0
md5sum	String	The MD5 checksum value of the content field.	2.5.0
createDate	Timestamp	The creation date.	2.5.0
lastOpDate	Timestamp	The last operation date.	2.5.0

SDK Sample

Java SDK

```
AddStackTemplateAction action = new AddStackTemplateAction();
action.name = "stack";
action.description = "description";
action.type = "zstack";
action.templateContent = "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\" : { \"Type\" : \"String\", \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\" : { \"Type\": \"String\", \"DefaultValue\" : \"instanceoffering-123\", \"Description\": \"The instance offering uuid\" }, \"l3NetworkUuid\" : { \"Type\": \"String\", \"Description\": \"The l3 network uuid\" }, \"DiskOfferingUuid\" : { \"Type\": \"String\", \"Description\": \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\" : { \"Type\": \"String\", \"Description\": \"primarystorage for initial disk\" }, \"HostUuid\" : { \"Type\": \"String\", \"Description\": \"host for initial disk\" } }, \"Resources\" : { \"WebServer1\" : { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\" : { \"name\" : \"vm\", \"imageUuid\" : {\"Ref\": \"imageUuid\"}, \"instanceOfferingUuid\" : {\"Ref\": \"instanceOfferingUuid\"}, \"l3NetworkUuids\" : [{\"Ref\": \"l3NetworkUuid\"}] }, \"DeletionPolicy\": \"Retain\" }, \"WebServer2\" : { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\" : {
```



```

    "name" : "vm-2",      "imageUuid" : {"Ref": "imageUuid"},
    "instanceOfferingUuid": {"Ref": "instanceOfferingUuid"},
    "l3NetworkUuids": [{"Ref": "l3NetworkUuid"}],      "DependsOn": [{"Ref": "WebServer1"}],
    "EmptyVolume": {"Type": "ZStack::Resource::DataVolume", "Properties": {"name": "empty-volume",
    "diskOfferingUuid": {"Ref": "DiskOfferingUuid"},
    "primaryStorageUuid": {"Ref": "PrimaryStorageUuid"},
    "systemTags": [{"Fn::Join": [":", [{"localStorage", "hostUuid", {"Ref": "HostUuid"}]}]}],
    "DependsOn": [{"Ref": "WebServer2"}]},
    "AttachDataVolumeToVm": {"Type": "ZStack::Action::AttachDataVolumeToVm",
    "Properties": {"vmInstanceUuid": {"Fn::GetAtt": ["WebServer1", "uuid"]},
    "volumeUuid": {"Fn::GetAtt": ["EmptyVolume", "uuid"]}}},
    "Outputs": {"VmInstance": {"Description": "print vm instance", "Value": {"Ref": "WebServer1"}}}];
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddStackTemplateAction.Result res = action.call();

```

Python SDK

```

AddStackTemplateAction action = AddStackTemplateAction()
action.name = "stack"
action.description = "description"
action.type = "zstack"
action.templateContent = "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\" : { \"Type\" : \"String\", \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\" : { \"Type\": \"String\", \"DefaultValue\" : \"instanceoffering-123\", \"Description\": \"The instance offering uuid\" }, \"l3NetworkUuid\" : { \"Type\": \"String\", \"Description\": \"The l3 network uuid\" }, \"DiskOfferingUuid\" : { \"Type\": \"String\", \"Description\": \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\" : { \"Type\": \"String\", \"Description\": \"PrimaryStorage for initial disk\" }, \"HostUuid\" : { \"Type\": \"String\", \"Description\": \"host for initial disk\" } }, \"Resources\" : { \"WebServer1\" : { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\" : { \"name\" : \"vm\", \"imageUuid\" : {\"Ref\" : \"imageUuid\"}, \"instanceOfferingUuid\" : {\"Ref\" : \"instanceOfferingUuid\"}, \"l3NetworkUuids\" : [{\"Ref\" : \"l3NetworkUuid\"}] }, \"DeletionPolicy\" : \"Retain\" }, \"WebServer2\" : { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\" : { \"name\" : \"vm-2\", \"imageUuid\" : {\"Ref\" : \"imageUuid\"}, \"instanceOfferingUuid\" : {\"Ref\" : \"instanceOfferingUuid\"}, \"l3NetworkUuids\" : [{\"Ref\" : \"l3NetworkUuid\"}] }, \"DependsOn\" : [{\"Ref\" : \"WebServer1\"}] }, \"EmptyVolume\" : { \"Type\": \"ZStack::Resource::DataVolume\", \"Properties\" : { \"name\" : \"empty-volume\", \"diskOfferingUuid\" : {\"Ref\" : \"DiskOfferingUuid\"}, \"primaryStorageUuid\" : {\"Ref\" : \"PrimaryStorageUuid\"}, \"systemTags\" : [{\"Fn::Join\" : [\":\", [\"localStorage\", \"hostUuid\", {\"Ref\" : \"HostUuid\"}]}]}], \"DependsOn\" : [{\"Ref\" : \"WebServer2\"}] }, \"AttachDataVolumeToVm\" : { \"Type\": \"ZStack::Action::AttachDataVolumeToVm\", \"Properties\" : { \"vmInstanceUuid\" : {\"Fn::GetAtt\" : [\"WebServer1\", \"uuid\"]}, \"volumeUuid\" : {\"Fn::GetAtt\" : [\"EmptyVolume\", \"uuid\"]} } }, \"Outputs\" : { \"VmInstance\" : { \"Description\" : \"print vm instance\", \"Value\" : {\"Ref\" : \"WebServer1\"} } } }"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"

```

```
AddStackTemplateAction.Result res = action.call()
```

5.5.2 DeleteStackTemplate

API Request

URLs

```
DELETE zstack/v1/cloudformation/template/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/cloudformation/template/
dbee1e724c13eb49650b3bdf7993d7b
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.5.0
deleteMode	String	body	Optional. The delete mode.		2.5.0
systemTags	List	body	Optional. The system tags.		2.5.0
userTags	List	body	Optional. The user tags.		2.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteStackTemplateAction action = new DeleteStackTemplateAction();
action.uuid = "dbeed1e724c13eb49650b3bdf7993d7b";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteStackTemplateAction.Result res = action.call();
```

Python SDK

```
DeleteStackTemplateAction action = DeleteStackTemplateAction()
action.uuid = "dbeed1e724c13eb49650b3bdf7993d7b"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteStackTemplateAction.Result res = action.call()
```

5.5.3 QueryStackTemplate

API Request

URLs

```
GET zstack/v1/cloudformation/template
GET zstack/v1/cloudformation/template/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cloudformation/template?
q=name=test
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cloudformation/
template/285b46cc67623c6d92eebc1ecab8f139
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryStackTemplate`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "5c1bb041907e3f29a27c7818e7fd07de",
      "name": "test",
      "description": "description",
      "type": "zstack",
      "version": "2018-06-18",
      "state": true,
      "content": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\": { \"Type\": \"String\", \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\": { \"Type\": \"String\", \"Description\": \"The instance offering uuid\" }, \"l3NetworkUuid\": { \"Type\": \"String\", \"Description\": \"The l3 network uuid\" }, \"DiskOfferingUuid\": { \"Type\": \"String\", \"Description\": \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\": { \"Type\": \"String\", \"Description\": \"primarystorage for initial disk\" }, \"HostUuid\": { \"Type\": \"String\", \"Description\": \"host for initial disk\" } }, \"Resources\" : { \"WebServer1\": { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\": { \"name\": \"vm\", \"imageUuid\" : {\"Ref\": \"imageUuid\"}, \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"}, \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}] }, \"DeletionPolicy\": \"Retain\" }, \"WebServer2\": { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\": { \"name\": \"vm-2\", \"imageUuid\" : {\"Ref\": \"imageUuid\"}, \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"}, \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}] }, \"DependsOn\": [{\"Ref\": \"WebServer1\"}] }, \"EmptyVolume\": { \"Type\": \"ZStack::Resource::DataVolume\", \"Properties\": { \"name\": \"empty-volume\", \"diskOfferingUuid\": {\"Ref\": \"DiskOfferingUuid\"}, \"primaryStorageUuid\": {\"Ref\": \"PrimaryStorageUuid\"}, \"systemTags\": [{\"Fn::Join\": [\"::\", [\"localStorage\", \"hostUuid\", {\"Ref\": \"HostUuid\"}]]}], \"DependsOn\": [{\"Ref\": \"WebServer2\"}] }, \"AttachDataVolumeToVm\": { \"Type\": \"ZStack::Action::AttachDataVolumeToVm\", \"Properties\": { \"vmInstanceUuid\": {\"Fn::GetAtt\": [\"WebServer1\", \"uuid\"]}, \"volumeUuid\": {\"Fn::GetAtt\": [\"EmptyVolume\", \"uuid\"]} } }, \"Outputs\": { \"VmInstance\": { \"Description\": \"print vm instance\", \"Value\": {\"Ref\": \"WebServer1\"} } } } } }
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	2.5.0

Name	Type	Description	Starting Version
		more information, see error .	
inventories	List	See inventories .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.5.0
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0
elaboration	String	The reserved field. Default value: null.	2.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.5.0
name	String	The resource name.	2.5.0
description	String	The detailed description of the resource.	2.5.0
type	String	The template type. Default type: zstack.	2.5.0

Name	Type	Description	Starting Version
version	String	The template version.	2.5.0
state	Boolean	Whether the template is available.	2.5.0
content	String	The template content, which is a JSON string.	2.5.0
createDate	Timestamp	The creation date.	2.5.0
lastOpDate	Timestamp	The last operation date.	2.5.0

SDK Sample

Java SDK

```
QueryStackTemplateAction action = new QueryStackTemplateAction();
action.conditions = asList("name=test");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryStackTemplateAction.Result res = action.call();
```

Python SDK

```
QueryStackTemplateAction action = QueryStackTemplateAction()
action.conditions = ["name=test"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryStackTemplateAction.Result res = action.call()
```

5.5.4 UpdateStackTemplate

API Request

URLs

```
PUT zstack/v1/cloudformation/template/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateStackTemplate": {
    "name": "stack",
    "description": "description",
    "state": false,
    "templateContent": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance
```

```

in zstack.\", \"Parameters\" : {    \"imageUuid\" : {    \"Type
\" : \"String\",    \"Description\" : \"Image Uuid, represents the
image resource to startup one vm instance\"    },    \"instanceOf
feringUuid\" : {    \"Type\" : \"String\",    \"DefaultValue\" : \"
instanceoffering-123\",    \"Description\" : \"The instance offering
uuid\"    },    \"l3NetworkUuid\" : {    \"Type\" : \"String\",
\"Description\" : \"The l3 network uuid\"    },    \"DiskOfferingU
id\" : {    \"Type\" : \"String\",    \"Description\" : \"DiskOfferi
ng for empty disk\"    },    \"PrimaryStorageUuid\" : {    \"Type
\" : \"String\",    \"Description\" : \"primarystorage for initial
disk\"    },    \"HostUuid\" : {    \"Type\" : \"String\",    \"
Description\" : \"host for initial disk\"    } }, \"Resources\" : {
  \"WebServer1\" : {    \"Type\" : \"ZStack::Resource::VmInstance\",
  \"Properties\" : {    \"name\" : \"vm\",    \"imageUuid\" :
  {\"Ref\" : \"imageUuid\"},    \"instanceOfferingUuid\" : {\"Ref\" :
  \"instanceOfferingUuid\"},    \"l3NetworkUuids\" : [{\"Ref\" : \"
l3NetworkUuid\"}]    },    \"DeletionPolicy\" : \"Retain\"    },
  \"WebServer2\" : {    \"Type\" : \"ZStack::Resource::VmInstance
\",    \"Properties\" : {    \"name\" : \"vm-2\",    \"
imageUuid\" : {\"Ref\" : \"imageUuid\"},    \"instanceOfferingU
id\" : {\"Ref\" : \"instanceOfferingUuid\"},    \"l3NetworkU
ids\" : [{\"Ref\" : \"l3NetworkUuid\"}]    },    \"DependsOn\" : [{\"
Ref\" : \"WebServer1\"}]    },    \"EmptyVolume\" : {    \"Type\" :
  \"ZStack::Resource::DataVolume\",    \"Properties\" : {    \"
name\" : \"empty-volume\",    \"diskOfferingUuid\" : {\"Ref\" :
  \"DiskOfferingUuid\"},    \"primaryStorageUuid\" : {\"Ref\" : \"
PrimaryStorageUuid\"},    \"systemTags\" : [{\"Fn::Join\" : [\":\",
  [\"localStorage\", \"hostUuid\", {\"Ref\" : \"HostUuid\"}]]}]    },
  \"DependsOn\" : [{\"Ref\" : \"WebServer2\"}]    },    \"AttachData
VolumeToVm\" : {    \"Type\" : \"ZStack::Action::AttachDataVolumeToVm
\",    \"Properties\" : {    \"vmInstanceUuid\" : {\"Fn::GetAtt
\" : [\"WebServer1\", \"uuid\"]},    \"volumeUuid\" : {\"Fn::GetAtt
\" : [\"EmptyVolume\", \"uuid\"]}    }    },    \"Outputs\" : {
  \"VmInstance\" : {    \"Description\" : \"print vm instance\",
  \"Value\" : {\"Ref\" : \"WebServer1\"}    }    } }
},
\"systemTags\" : [],
\"userTags\" : []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateStackTemplate":
{"name":"stack","description":"description","state":false,"templateContent":{"
  \"ZStackTemplateFormatVersion\" : \"2018-06-18\",    \"Description
\": \"Example for create a group vm instance in zstack.\",
  \"Parameters\" : {    \"imageUuid\" : {    \"Type\" : \"String\",
    \"Description\" : \"Image Uuid, represents the image resource
to startup one vm instance\"    },    \"instanceOfferingUuid
\": {    \"Type\" : \"String\",    \"DefaultValue\" :
  \"instanceoffering-123\",    \"Description\" : \"The instance
offering uuid\"    },    \"l3NetworkUuid\" : {    \"Type\" :

```

```

    \"String\",      \"Description\": \"The l3 network uuid\"    },
    \"DiskOfferingUuid\": {      \"Type\": \"String\",      \"Description
\": \"DiskOffering for empty disk\"    },      \"PrimaryStorageUuid\":
{      \"Type\": \"String\",      \"Description\": \"primarystorage
for initial disk\"    },      \"HostUuid\": {      \"Type\":
\"String\",      \"Description\": \"host for initial disk\"
    }    },      \"Resources\": {      \"WebServer1\": {      \"Type\":
\"ZStack::Resource::VmInstance\",      \"Properties\": {
        \"name\": \"vm\",      \"imageUuid\": {\"Ref\": \"imageUuid\"},
        \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid
\"},
        \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}]
    },      \"DeletionPolicy\": \"Retain\"    },      \"WebServer2\": {
        \"Type\": \"ZStack::Resource::VmInstance\",      \"Properties
\": {
            \"name\": \"vm-2\",      \"imageUuid\": {\"Ref
\": \"imageUuid\"},      \"instanceOfferingUuid\": {\"Ref\":
\"instanceOfferingUuid\"},      \"l3NetworkUuids\": [{\"Ref
\": \"l3NetworkUuid\"}]    },      \"DependsOn\": [{\"Ref\":
\"WebServer1\"}]    },      \"EmptyVolume\": {      \"Type\":
\"ZStack::Resource::DataVolume\",      \"Properties\": {
        \"name\": \"empty-volume\",      \"diskOfferingUuid\":
{\"Ref\": \"DiskOfferingUuid\"},      \"primaryStorageUuid
\": {\"Ref\": \"PrimaryStorageUuid\"},      \"systemTags\":
[{\"Fn::Join\": [\":\", [\"localStorage\", \"hostUuid\", {\"Ref
\": \"HostUuid\"}]}]}]    },      \"DependsOn\": [{\"Ref\":
\"WebServer2\"}]    },      \"AttachDataVolumeToVm\": {      \"Type\":
\"ZStack::Action::AttachDataVolumeToVm\",      \"Properties\": {
        \"vmInstanceUuid\": {\"Fn::GetAtt\": [\"WebServer1\", \"uuid
\"]},
        \"volumeUuid\": {\"Fn::GetAtt\": [\"EmptyVolume\",
\"uuid\"]}    }    },      \"Outputs\": {      \"VmInstance\": {
        \"Description\": \"print vm instance\",      \"Value\": {\"Ref\":
\"WebServer1\"}    }    }    }    }' \
http://localhost:8080/zstack/v1/cloudformation/
template/86cefd61876833eaa581d942f6d519ba/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The template UUID.		2.5.0
name	String	body (contained in the updateStackTemplate structure)	Optional. The resource name.		2.5.0
description	String	body (contained in the updateStackTemplate structure)	Optional. The detailed description of the resource.		2.5.0

Name	Type	Location	Description	Optional Value	Starting Version
state	Boolean	body (contained in the updateStackTemplate structure)	Optional. Whether the template is available.		2.5.0
templateContent	String	body (contained in the updateStackTemplate structure)	Optional. The template content, which is a JSON string.		2.5.0
systemTags	List	body	Optional. The system tags.		2.5.0
userTags	List	body	Optional. The user tags.		2.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "600afd0b079b303385e5d04b4d560af1",
    "name": "stack",
    "type": "zstack",
    "version": "2018-06-18",
    "state": true,
    "content": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : {   \"imageUuid\": {     \"Type\" : \"String\",     \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\"   },   \"instanceOfferingUuid\": {     \"Type\": \"String\",     \"DefaultValue\" : \"instanceoffering-123\",     \"Description\": \"The instance offering uuid\"   },   \"l3NetworkUuid\": {     \"Type\": \"String\",     \"Description\": \"The l3 network uuid\"   },   \"DiskOfferingUuid\": {     \"Type\": \"String\",     \"Description\": \"DiskOffering for empty disk\"   },   \"PrimaryStorageUuid\": {     \"Type\": \"String\",     \"Description\": \"primarystorage for initial disk\"   },   \"HostUuid\": {     \"Type\": \"String\",     \"Description\": \"host for initial disk\"   }   },   \"Resources\" : {     \"WebServer1\": {       \"Type\": \"ZStack::Resource::VmInstance\",       \"Properties\": {         \"name\" : \"vm\",         \"imageUuid\" : {\"Ref\": \"imageUuid\"},         \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"},         \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}]       },       \"DeletionPolicy\": \"Retain\"     },     \"WebServer2\": {       \"Type\": \"ZStack::Resource::VmInstance
```

```

\",      \"Properties\": {          \"name\" : \"vm-2\",          \"
imageUuid\" : {\"Ref\": \"imageUuid\"},          \"instanceOfferingUuid
\": {\"Ref\": \"instanceOfferingUuid\"},          \"l3NetworkUuids
\": [{\"Ref\": \"l3NetworkUuid\"}]          },          \"DependsOn\": [{\"
Ref\": \"WebServer1\"}]          },          \"EmptyVolume\": {          \"Type\":
\"ZStack::Resource::DataVolume\",          \"Properties\": {          \"
name\" : \"empty-volume\",          \"diskOfferingUuid\": {\"Ref\": \"
DiskOfferingUuid\"},          \"primaryStorageUuid\": {\"Ref\": \"
PrimaryStorageUuid\"},          \"systemTags\": [{\"Fn::Join\": [\":\", \"
[\"localStorage\", \"hostUuid\", {\"Ref\": \"HostUuid\"}]]}],          \"
DependsOn\": [{\"Ref\": \"WebServer2\"}]          },          \"AttachData
VolumeToVm\": {          \"Type\": \"ZStack::Action::AttachDataVolumeToVm
\",          \"Properties\": {          \"vmInstanceUuid\": {\"Fn::GetAtt
\": [\"WebServer1\", \"uuid\"]},          \"volumeUuid\": {\"Fn::GetAtt
\": [\"EmptyVolume\", \"uuid\"]}          }          },          \"Outputs\": {
    \"VmInstance\": {          \"Description\" : \"print vm instance\",
    \"Value\" : {\"Ref\": \"WebServer1\"}          }          }
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0
inventory	StackTemplateInventory	See inventory .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.5.0
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0
elaboration	String	The reserved field. Default value: null.	2.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.5.0
name	String	The resource name.	2.5.0
description	String	The detailed description of the resource.	2.5.0
type	String	The template type. Default type: zstack.	2.5.0
version	String	The template version.	2.5.0
state	Boolean	Whether the template is available.	2.5.0
content	String	The template content, which is a JSON string.	2.5.0
createDate	Timestamp	The creation date.	2.5.0
lastOpDate	Timestamp	The last operation date.	2.5.0

SDK Sample

Java SDK

```
UpdateStackTemplateAction action = new UpdateStackTemplateAction();
action.uuid = "86cefd61876833eaa581d942f6d519ba";
action.name = "stack";
action.description = "description";
action.state = false;
action.templateContent = "{  \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : {    \"imageUuid\": {      \"Type\" : \"String\",      \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\"    },    \"instanceOfferingUuid\": {      \"Type\": \"String\",      \"DefaultValue\" : \"instanceoffering-123\",      \"Description\": \"The instance offering uuid\"    },    \"l3NetworkU
```

```

uid": {      "Type": "String",      "Description": "The l3 network
  uuid"    },      "DiskOfferingUuid": {      "Type": "String",
    "Description": "DiskOffering for empty disk"    },      "PrimaryStorageUuid": {      "Type": "String",
    "Description": "primarystorage for initial disk"    },      "HostUuid": {      "Type": "String",
    "Description": "host for initial disk"    }    },      "Resources" :
  {      "WebServer1": {      "Type": "ZStack::Resource::VmInstance",
    "Properties": {      "name" : "vm",      "imageUuid" : {"Ref":
      "imageUuid"},      "instanceOfferingUuid": {"Ref": "instanceOf
        feringUuid"},      "l3NetworkUuids": [{"Ref": "l3NetworkUuid"}]
    },      "DeletionPolicy": "Retain"    },      "WebServer2": {
    "Type": "ZStack::Resource::VmInstance",      "Properties": {
      "name" : "vm-2",      "imageUuid" : {"Ref": "imageUuid"},
      "instanceOfferingUuid": {"Ref": "instanceOfferingUuid"},      "
        l3NetworkUuids": [{"Ref": "l3NetworkUuid"}]    },      "DependsOn
        ": [{"Ref": "WebServer1"}]    },      "EmptyVolume": {      "Type": "
        ZStack::Resource::DataVolume",      "Properties": {      "name" :
        "empty-volume",      "diskOfferingUuid": {"Ref": "DiskOfferingUuid
        "},      "primaryStorageUuid": {"Ref": "PrimaryStorageUuid"},
        "systemTags": [{"Fn::Join": [":", ["localStorage", "hostUuid", {"
          Ref": "HostUuid"}]}]}]    },      "DependsOn": [{"Ref": "WebServer2
        "}]    },      "AttachDataVolumeToVm": {      "Type": "ZStack::Action::
        AttachDataVolumeToVm",      "Properties": {      "vmInstanceUuid":
        {"Fn::GetAtt" : ["WebServer1", "uuid"]},      "volumeUuid": {"Fn::
        GetAtt" : ["EmptyVolume", "uuid"]}    }    },      "Outputs": {      "
        VmInstance": {      "Description" : "print vm instance",      "Value
        " : {"Ref": "WebServer1"}    }    }    };
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateStackTemplateAction.Result res = action.call();

```

Python SDK

```

UpdateStackTemplateAction action = UpdateStackTemplateAction()
action.uuid = "86cefd61876833eaa581d942f6d519ba"
action.name = "stack"
action.description = "description"
action.state = false
action.templateContent = "{  \"ZStackTemplateFormatVersion\" : \"2018-
06-18\",  \"Description\": \"Example for create a group vm instance in
zstack.\",  \"Parameters\" : {    \"imageUuid\": {      \"Type\" : \"String
\",      \"Description\": \"Image Uuid, represents the image resource to
startup one vm instance\"    },    \"instanceOfferingUuid\": {      \"
Type\": \"String\",      \"DefaultValue\" : \"instanceoffering-123\",
      \"Description\": \"The instance offering uuid\"    },    \"l3NetworkU
uid\": {      \"Type\": \"String\",      \"Description\": \"The l3 network
uuid\"    },    \"DiskOfferingUuid\": {      \"Type\": \"String\",
      \"Description\": \"DiskOffering for empty disk\"    },    \"PrimarySto
rageUuid\": {      \"Type\": \"String\",      \"Description\": \"primarysto
rage for initial disk\"    },    \"HostUuid\": {      \"Type\": \"String\",
      \"Description\": \"host for initial disk\"    }    },    \"Resources\" :
  {      \"WebServer1\": {      \"Type\": \"ZStack::Resource::VmInstance\",
    \"Properties\": {      \"name\" : \"vm\",      \"imageUuid\" : {\"Ref\"
      \"imageUuid\"},      \"instanceOfferingUuid\": {\"Ref\": \"instanceOf
        feringUuid\"},      \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}]
    },      \"DeletionPolicy\": \"Retain\"    },      \"WebServer2\": {
    \"Type\": \"ZStack::Resource::VmInstance\",      \"Properties\": {
      \"name\" : \"vm-2\",      \"imageUuid\" : {\"Ref\": \"imageUuid\"},
      \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"},      \"
        l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}]    },      \"DependsOn
        \": [{\"Ref\": \"WebServer1\"}]    },      \"EmptyVolume\": {      \"Type\": \"
        ZStack::Resource::DataVolume\",      \"Properties\": {      \"name\" :

```

```

"empty-volume",      "diskOfferingUuid": {"Ref": "DiskOfferingUuid"},
},      "primaryStorageUuid": {"Ref": "PrimaryStorageUuid"},
"systemTags": [{"Fn::Join": [":", ["localStorage", "hostUuid", {"
Ref": "HostUuid"}]]}],      "DependsOn": [{"Ref": "WebServer2"}]
},      "AttachDataVolumeToVm": {      "Type": "ZStack::Action::
AttachDataVolumeToVm",      "Properties": {      "vmInstanceUuid":
{"Fn::GetAtt": ["WebServer1", "uuid"]},      "volumeUuid": {"Fn::
GetAtt": ["EmptyVolume", "uuid"]}      }      },      "Outputs": {      "
VmInstance": {      "Description": "print vm instance",      "Value
": {"Ref": "WebServer1"}      }      }      }
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateStackTemplateAction.Result res = action.call()

```

5.5.5 GetSupportedCloudFormationResources

API Request

URLs

```
GET zstack/v1/cloudformation/resources
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cloudformation/resources?
type=zstack

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
version	String	query	Optional. The template version No. For example, v1.	• v1	2.6.0
type	String	query	Optional. The template type . Default type: zstack.	• zstack	2.6.0
systemTags	List	query	Optional. The system tags.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "resources": [
    {
      "name": "VmInstance",
      "type": "Resource",
      "actionName": "CreateVmInstanceAction",
      "resources": [
        "InstanceOffering",
        "Image",
        "L3Network",
        "DiskOffering",
        "Zone",
        "Cluster",
        "Host",
        "PrimaryStorage"
      ]
    },
    {
      "name": "AttachDataVolumeToVm",
      "type": "Action",
      "actionName": "AttachDataVolumeToVmAction",
      "resources": [
        "VmInstance",
        "Volume"
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.6.0
resources	List	See resources .	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#resources

Name	Type	Description	Starting Version
name	String	The resource name.	2.6.0
type	String	The type, including Action and Resource.	2.6.0
actionName	String	The action name.	2.6.0
resources	List	The list of the associated resources.	2.6.0

SDK Sample

Java SDK

```

GetSupportedCloudFormationResourcesAction action = new GetSupportedCloudFormationResourcesAction();
action.type = "zstack";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
GetSupportedCloudFormationResourcesAction.Result res = action.call();
```

Python SDK

```
GetSupportedCloudFormationResourcesAction action = GetSupportedCloudFormationResourcesAction()
action.type = "zstack"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetSupportedCloudFormationResourcesAction.Result res = action.call()
```

5.5.6 CreateResourceStack

API Request

URLs

```
POST zstack/v1/cloudformation/stack
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "stack",
    "description": "description",
    "type": "zstack",
    "rollback": true,
    "templateContent": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : {   \"imageUuid\": {     \"Type\" : \"String\",     \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\"   },   \"instanceOfferingUuid\": {     \"Type\": \"String\",     \"DefaultValue\" : \"instanceoffering-123\",     \"Description\": \"The instance offering uuid\"   },   \"l3NetworkUuid\": {     \"Type\": \"String\",     \"Description\": \"The l3 network uuid\"   },   \"DiskOfferingUuid\": {     \"Type\": \"String\",     \"Description\": \"DiskOffering for empty disk\"   },   \"PrimaryStorageUuid\": {     \"Type\": \"String\",     \"Description\": \"primarystorage for initial disk\"   },   \"HostUuid\": {     \"Type\": \"String\",     \"Description\": \"host for initial disk\"   } }, \"Resources\" : {   \"WebServer1\": {     \"Type\": \"ZStack::Resource::VmInstance\",     \"Properties\": {       \"name\" : \"vm\",       \"imageUuid\" : {\"Ref\": \"imageUuid\"},       \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"},       \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}]     },     \"DeletionPolicy\": \"Retain\"   },   \"WebServer2\": {     \"Type\": \"ZStack::Resource::VmInstance\",     \"Properties\": {       \"name\" : \"vm-2\",       \"imageUuid\" : {\"Ref\": \"imageUuid\"},       \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"},       \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}]     },     \"DependsOn\": [{\"Ref\": \"WebServer1\"}]   },   \"EmptyVolume\": {     \"Type\": \"ZStack::Resource::DataVolume\",     \"Properties\": {
```



```

name\" : \"empty-volume\",          \"diskOfferingUuid\" : {\"Ref\" :
  \"DiskOfferingUuid\"},          \"primaryStorageUuid\" : {\"Ref\" : \"
PrimaryStorageUuid\"},          \"systemTags\" : [{\"Fn::Join\" : [\"::\",
  [\"localStorage\", \"hostUuid\", {\"Ref\" : \"HostUuid\"}]]}],
  \"DependsOn\" : [{\"Ref\" : \"WebServer2\"}],          \"AttachData
VolumeToVm\" : {          \"Type\" : \"ZStack::Action::AttachDataVolumeToVm
\",          \"Properties\" : {          \"vmInstanceUuid\" : {\"Fn::GetAtt
\" : [\"WebServer1\", \"uuid\"],          \"volumeUuid\" : {\"Fn::GetAtt
\" : [\"EmptyVolume\", \"uuid\"],          \"Outputs\" : {
  \"VmInstance\" : {          \"Description\" : \"print vm instance\",
  \"Value\" : {\"Ref\" : \"WebServer1\"}          } }},
  \"parameters\" : {  \"imageUuid\" : \"8fcfe758a7eb13118d7344a08ff790
a5\", \"instanceOfferingUuid\" : \"751f662a32184933aff487f5c6e167
a6\", \"l3NetworkUuid\" : \"1245de5c2d28454bb63e60575ec611cb\",
  \"DiskOfferingUuid\" : \"ad0b4ea4c747401c92a7c990f7375cf1\", \"
PrimaryStorageUuid\" : \"06c35e7f42264a74abb5b828367169fe\", \"
HostUuid\" : \"9b57690de23f449e99c8f0da311e568e\"}
},
  \"systemTags\" : [],
  \"userTags\" : []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"stack","description":"description","type":"zstack","rollback":true,"temp
  \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description
\": \"Example for create a group vm instance in zstack.\",
  \"Parameters\" : {  \"imageUuid\" : {  \"Type\" : \"String\",
    \"Description\" : \"Image Uuid, represents the image resource
to startup one vm instance\"  },  \"instanceOfferingUuid
\": {  \"Type\" : \"String\",  \"DefaultValue\" :
  \"instanceoffering-123\",  \"Description\" : \"The instance
offering uuid\"  },  \"l3NetworkUuid\" : {  \"Type\" :
  \"String\",  \"Description\" : \"The l3 network uuid\"  },
  \"DiskOfferingUuid\" : {  \"Type\" : \"String\",  \"Description
\": \"DiskOffering for empty disk\"  },  \"PrimaryStorageUuid\" :
  {  \"Type\" : \"String\",  \"Description\" : \"primarystorage
for initial disk\"  },  \"HostUuid\" : {  \"Type\" :
  \"String\",  \"Description\" : \"host for initial disk\"
  } },  \"Resources\" : {  \"WebServer1\" : {  \"Type\" :
  \"ZStack::Resource::VmInstance\",  \"Properties\" : {
    \"name\" : \"vm\",  \"imageUuid\" : {\"Ref\" : \"imageUuid\"},
    \"instanceOfferingUuid\" : {\"Ref\" : \"instanceOfferingUuid
\"},
    \"l3NetworkUuids\" : [{\"Ref\" : \"l3NetworkUuid\"}]
  },  \"DeletionPolicy\" : \"Retain\"  },  \"WebServer2\" : {
    \"Type\" : \"ZStack::Resource::VmInstance\",  \"Properties
\": {
      \"name\" : \"vm-2\",  \"imageUuid\" : {\"Ref
\": \"imageUuid\"},  \"instanceOfferingUuid\" : {\"Ref\" :
  \"instanceOfferingUuid\"},  \"l3NetworkUuids\" : [{\"Ref
\": \"l3NetworkUuid\"}]
    },  \"DependsOn\" : [{\"Ref\" :
  \"WebServer1\"}]
  },  \"EmptyVolume\" : {  \"Type\" :

```

```

    \"ZStack::Resource::DataVolume\",      \"Properties\": {
      \"name\" : \"empty-volume\",          \"diskOfferingUuid\":
    {\"Ref\": \"DiskOfferingUuid\"},        \"primaryStorageUuid
\": {\"Ref\": \"PrimaryStorageUuid\"},    \"systemTags\":
    [{\"Fn::Join\": [\":\", [\"localStorage\", \"hostUuid\", {\"Ref
\": \"HostUuid\"}]]}],                  \"DependsOn\": [{\"Ref\":
    \"WebServer2\"}],                    \"AttachDataVolumeToVm\": {    \"Type
\": \"ZStack::Action::AttachDataVolumeToVm\",    \"Properties\":
    {      \"vmInstanceUuid\": {\"Fn::GetAtt\" : [\"WebServer1\",
    \"uuid\"]},                          \"volumeUuid\": {\"Fn::GetAtt\" : [\"EmptyVolume
\", \"uuid\"]}    }    },    \"Outputs\": {      \"VmInstance\":
    {      \"Description\" : \"print vm instance\",          \"Value\" :
    {\"Ref\": \"WebServer1\"}    }    },    \"parameters\": {      \"imageUuid
\": \"8fcfe758a7eb13118d7344a08ff790a5\",    \"instanceOfferingUuid
\": \"751f662a32184933aff487f5c6e167a6\",    \"l3NetworkUuid\":
    \"1245de5c2d28454bb63e60575ec611cb\",    \"DiskOfferingUuid\":
    \"ad0b4ea4c747401c92a7c990f7375cf1\",    \"PrimaryStorageUuid
\": \"06c35e7f42264a74abb5b828367169fe\",    \"HostUuid\":
    \"9b57690de23f449e99c8f0da311e568e\"}]]}' \
http://localhost:8080/zstack/v1/cloudformation/stack

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.5.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.5.0
type	String	body (contained in the params structure)	Optional. The stack type. Default type: zstack.	zstack	2.5.0
rollback	Boolean	body (contained in the params structure)	Optional. Whether to roll back if stack creation fails. . By default, rollback is performed on failure.		2.5.0
templateContent	String	body (contained in	Optional. The stack content,		2.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	which is a JSON string. Note: Make sure that at least one of templateContent and templateUuid is not null.		
templateUuid	String	body (contained in the params structure)	Optional. The template UUID. Note: Make sure that at least one of templateContent and templateUuid is not null.		2.5.0
parameters	String	body (contained in the params structure)	The parameters in the stack. The parameters are JSON strings.		2.5.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.5.0
systemTags	List	body	Optional. The system tags.		2.5.0
userTags	List	body	Optional. The user tags.		2.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d6ad19356c623599a29140e063c18d74",
    "name": "test",
    "description": "description",
    "version": "2018-06-18",
    "type": "zstack",
    "templateContent": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\" : \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\" : { \"Type\" : \"String\", \"Description\" : \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\" : { \"Type\" : \"String\", \"Description\" : \"The instance offering uuid\" }, \"l3NetworkUuid\" : { \"Type\" : \"String\", \"Description\" : \"The l3 network uuid\" }, \"DiskOfferingUuid\" : { \"Type\" : \"String\", \"Description\" : \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\" : { \"Type\" : \"String\", \"Description\" : \"primarystorage for initial disk\" }, \"HostUuid\" : { \"Type\" : \"String\", \"Description\" : \"host for initial disk\" } }, \"Resources\" : { \"WebServer1\" : { \"Type\" : \"ZStack::Resource::VmInstance\", \"Properties\" : { \"name\" : \"vm\", \"imageUuid\" : { \"Ref\" : \"imageUuid\" }, \"instanceOfferingUuid\" : { \"Ref\" : \"instanceOfferingUuid\" }, \"l3NetworkUuids\" : [ { \"Ref\" : \"l3NetworkUuid\" } ], \"DeletionPolicy\" : \"Retain\" }, \"WebServer2\" : { \"Type\" : \"ZStack::Resource::VmInstance\", \"Properties\" : { \"name\" : \"vm-2\", \"imageUuid\" : { \"Ref\" : \"imageUuid\" }, \"instanceOfferingUuid\" : { \"Ref\" : \"instanceOfferingUuid\" }, \"l3NetworkUuids\" : [ { \"Ref\" : \"l3NetworkUuid\" } ], \"DependsOn\" : [ { \"Ref\" : \"WebServer1\" } ], \"EmptyVolume\" : { \"Type\" : \"ZStack::Resource::DataVolume\", \"Properties\" : { \"name\" : \"empty-volume\", \"diskOfferingUuid\" : { \"Ref\" : \"DiskOfferingUuid\" }, \"primaryStorageUuid\" : { \"Ref\" : \"PrimaryStorageUuid\" }, \"systemTags\" : [ { \"Fn::Join\" : [ \"\", [ \"localStorage\", \"hostUuid\", { \"Ref\" : \"HostUuid\" } ] ] } ], \"DependsOn\" : [ { \"Ref\" : \"WebServer2\" } ], \"AttachDataVolumeToVm\" : { \"Type\" : \"ZStack::Action::AttachDataVolumeToVm\", \"Properties\" : { \"vmInstanceUuid\" : { \"Fn::GetAtt\" : [ \"WebServer1\", \"uuid\" ] }, \"volumeUuid\" : { \"Fn::GetAtt\" : [ \"EmptyVolume\", \"uuid\" ] } }, \"Outputs\" : { \"VmInstance\" : { \"Description\" : \"print vm instance\", \"Value\" : { \"Ref\" : \"WebServer1\" } } }, \"paramContent\" : { \"imageUuid\" : \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid\" : \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\" : \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\" : \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\" : \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\" : \"9b57690de23f449e99c8f0da311e568e\" }, \"status\" : \"Created\", \"enableRollback\" : true } }
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0
inventory	ResourceStackInventory	See inventory .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.5.0
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0
elaboration	String	The reserved field. Default value: null.	2.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.5.0

Name	Type	Description	Starting Version
name	String	The resource name.	2.5.0
description	String	The detailed description of the resource.	2.5.0
version	String	The stack version.	2.5.0
type	String	The stack type. Default type: zstack.	2.5.0
templateContent	String	The stack content, which is a JSON string.	2.5.0
paramContent	String	The parameters in the stack. The parameters are JSON strings.	2.5.0
status	String	The stack status.	2.5.0
reason	String	The reason for stack creation failure.	2.5.0
enableRollback	boolean	Whether to roll back if stack creation fails.	2.5.0
createDate	Timestamp	The creation date.	2.5.0
lastOpDate	Timestamp	The last operation date.	2.5.0

SDK Sample

Java SDK

```
CreateResourceStackAction action = new CreateResourceStackAction();
action.name = "stack";
action.description = "description";
action.type = "zstack";
action.rollback = true;
action.templateContent = "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\": { \"Type\" : \"String\", \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\": { \"Type\": \"String\", \"DefaultValue\" : \"instanceoffering-123\", \"Description\": \"The instance offering uuid\" }, \"l3NetworkUuid\": { \"Type\": \"String\", \"Description\": \"The l3 network uuid\" }, \"DiskOfferingUuid\": { \"Type\": \"String\", \"Description\": \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\": { \"Type\": \"String\", \"Description\": \"primarystorage for initial disk\" }, \"HostUuid\": { \"Type\": \"String\", \"Description\": \"host for initial disk\" } }, \"Resources\" : { \"WebServer1\": { \"Type\": \"ZStack::Resource::VmInstance\",
```

```

    "Properties": {
        "name" : "vm",
        "imageUuid" : {"Ref": "imageUuid"},
        "instanceOfferingUuid": {"Ref": "instanceOfferingUuid"},
        "l3NetworkUuids": [{"Ref": "l3NetworkUuid"}]
    },
    "DeletionPolicy": "Retain" },
    "WebServer2": {
        "Type": "ZStack::Resource::VmInstance",
        "Properties": {
            "name" : "vm-2",
            "imageUuid" : {"Ref": "imageUuid"},
            "instanceOfferingUuid": {"Ref": "instanceOfferingUuid"},
            "l3NetworkUuids": [{"Ref": "l3NetworkUuid"}] },
        "DependsOn": [{"Ref": "WebServer1"}] },
        "EmptyVolume": {
            "Type": "ZStack::Resource::DataVolume",
            "Properties": {
                "name" : "empty-volume",
                "diskOfferingUuid": {"Ref": "DiskOfferingUuid"},
                "primaryStorageUuid": {"Ref": "PrimaryStorageUuid"},
                "systemTags": [{"Fn::Join": [":", ["localStorage", "hostUuid", {"Ref": "HostUuid"}]]}] },
            "DependsOn": [{"Ref": "WebServer2"}] },
        "AttachDataVolumeToVm": {
            "Type": "ZStack::Action::AttachDataVolumeToVm",
            "Properties": {
                "vmInstanceUuid": {"Fn::GetAtt": ["WebServer1", "uuid"]},
                "volumeUuid": {"Fn::GetAtt": ["EmptyVolume", "uuid"]} } },
        "Outputs": {
            "VmInstance": {
                "Description" : "print vm instance",
                "Value" : {"Ref": "WebServer1"} } } };
    action.parameters = "{ \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\": \"9b57690de23f449e99cf0da311e568e\"}";
    action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
    CreateResourceStackAction.Result res = action.call();

```

Python SDK

```

CreateResourceStackAction action = CreateResourceStackAction()
action.name = "stack"
action.description = "description"
action.type = "zstack"
action.rollback = true
action.templateContent = "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\": { \"Type\" : \"String\", \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\": { \"Type\": \"String\", \"DefaultValue\" : \"instanceoffering-123\", \"Description\": \"The instance offering uuid\" }, \"l3NetworkUuid\": { \"Type\": \"String\", \"Description\": \"The l3 network uuid\" }, \"DiskOfferingUuid\": { \"Type\": \"String\", \"Description\": \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\": { \"Type\": \"String\", \"Description\": \"primarystorage for initial disk\" }, \"HostUuid\": { \"Type\": \"String\", \"Description\": \"host for initial disk\" } }, \"Resources\" : { \"WebServer1\": { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\": { \"name\" : \"vm\", \"imageUuid\" : {\"Ref\": \"imageUuid\"}, \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"}, \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}] }, \"DeletionPolicy\": \"Retain\" }, \"WebServer2\": { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\": { \"name\" : \"vm-2\", \"imageUuid\" : {\"Ref\": \"imageUuid\"}, \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"}, \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}] }, \"DependsOn\" : [{\"Ref\": \"WebServer1\"}] }, \"EmptyVolume\": { \"Type\": \"ZStack::Resource::DataVolume\", \"Properties\": { \"name\" : \"empty-volume\", \"diskOfferingUuid\": {\"Ref\": \"DiskOfferingUuid\"} } } } }";

```

```

    },
    "primaryStorageUuid": {"Ref": "PrimaryStorageUuid"},
    "systemTags": [{"Fn::Join": [":", ["localStorage", "hostUuid", {"
Ref": "HostUuid"}]]}],
    "DependsOn": [{"Ref": "WebServer2"}],
    "AttachDataVolumeToVm": {
        "Type": "ZStack::Action::
AttachDataVolumeToVm",
        "Properties": {
            "vmInstanceUuid": {
                "Fn::GetAtt": ["WebServer1", "uuid"]},
            "volumeUuid": {"Fn::
GetAtt": ["EmptyVolume", "uuid"]}
        },
        "Outputs": {
            "VmInstance": {
                "Description": "print vm instance",
                "Value": {"Ref": "WebServer1"}
            }
        }
    },
    "action.parameters": {
        "imageUuid": "8fcfe758a7eb13118d7344a08ff790a5",
        "instanceOfferingUuid": "751f662a32184933aff487f5c6e167a6",
        "l3NetworkUuid": "1245de5c2d28454bb63e60575ec611cb",
        "DiskOfferingUuid": "ad0b4ea4c747401c92a7c990f7375cf1",
        "PrimaryStorageUuid": "06c35e7f42264a74abb5b828367169fe",
        "HostUuid": "9b57690de23f449e99c8f0da311e568e"}
    },
    "action.sessionId": "b86c9016b4f24953a9edefb53ca0678c"
}
CreateResourceStackAction.Result res = action.call()

```

5.5.7 PreviewResourceStack

API Request

URLs

```
POST zstack/v1/cloudformation/stack/preview
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "type": "zstack",
    "uuid": "c0c6caa3886d37709efe2c52aeefaf31",
    "parameters": "{ \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\": \"9b57690de23f449e99c8f0da311e568e\"}"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```



```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"type": "zstack", "uuid": "c0c6caa3886d37709efe2c52aeefa31", "parameters": "{
  \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\",
  \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\",
  \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\",
  \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\",
  \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\",
  \"HostUuid\": \"9b57690de23f449e99c8f0da311e568e\"}}}' http://
localhost:8080/zstack/v1/cloudformation/stack/preview
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional.	• zstack	2.5.0
templateContent	String	body (contained in the params structure)	Optional. The template content.		2.5.0
uuid	String	body (contained in the params structure)	Optional. The template UUID.		2.5.0
parameters	String	body (contained in the params structure)	Optional. The parameters in the stack. The parameters are JSON strings.		2.5.0
systemTags	List	body	Optional. The system tags.		2.5.0
userTags	List	body	Optional. The user tags.		2.5.0

API Response

Sample Response

```
{
  "preview": {
    "actions": [
      {
```

```

    "resourceName": "WebServer1",
    "actionName": "org.zstack.sdk.CreateVmInstanceAction",
    "round": 0.0,
    "inDegree": [],
    "actions": {
      "name": "vm",
      "instanceOfferingUuid": "f524c10459ce32f0b70a1c0878769b2d",
      "imageUuid": "66296cfc1c6d36fa8405788cb2fb85a0",
      "l3NetworkUuids": [
        "e99fce59e6463758aef45bdfc5579203"
      ],
      "strategy": "InstantStart",
      "timeout": -1.0,
      "pollingInterval": -1.0
    },
    "conditions": {
      "WithDataVolume": false
    }
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0
preview	PreviewResourceStruct	See preview .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.5.0
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0
elaboration	String	The reserved field. Default value: null.	2.5.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.5.0

#preview

Name	Type	Description	Starting Version
conditions	Map	The action results of the conditions.	3.7.0
actions	List	See actions .	2.5.0

#actions

Name	Type	Description	Starting Version
resourceName	String	The resource type.	2.5.0
actionName	String	The action name.	2.5.0
round	int	The round (), counting from '0'.	2.5.0
inDegree	Set	The dependency action list.	2.5.0
actions	Object	The action parameters .	2.5.0

SDK Sample

Java SDK

```
PreviewResourceStackAction action = new PreviewResourceStackAction();
action.type = "zstack";
action.uuid = "c0c6caa3886d37709efe2c52aeeefa31";
action.parameters = "{  \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\": \"9b57690de23f449e99c8f0da311e568e\"}";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
PreviewResourceStackAction.Result res = action.call();
```

Python SDK

```
PreviewResourceStackAction action = PreviewResourceStackAction()
action.type = "zstack"
action.uuid = "c0c6caa3886d37709efe2c52aeeefa31"
action.parameters = "{ \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\": \"9b57690de23f449e99c8f0da311e568e\"}"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
PreviewResourceStackAction.Result res = action.call()
```

5.5.8 DeleteResourceStack

API Request

URLs

```
DELETE zstack/v1/cloudformation/stack/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/cloudformation/stack/77e576c15ef33cfcac8478e8db28f0fa
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.5.0
deleteMode	String	body	Optional.		2.5.0
systemTags	List	body	Optional. The system tags.		2.5.0
userTags	List	body	Optional. The user tags.		2.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteResourceStackAction action = new DeleteResourceStackAction();
action.uuid = "77e576c15ef33cfcac8478e8db28f0fa";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteResourceStackAction.Result res = action.call();
```

Python SDK

```
DeleteResourceStackAction action = DeleteResourceStackAction()
action.uuid = "77e576c15ef33cfcac8478e8db28f0fa"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteResourceStackAction.Result res = action.call()
```

5.5.9 UpdateResourceStack

API Request

URLs

```
PUT zstack/v1/cloudformation/stack/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateResourceStack": {
    "name": "stack",
    "description": "description",
    "rollback": true,
    "templateContent": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : {   \"imageUuid\" : {     \"Type\" : \"String\",     \"Description\": \"Image Uuid, represents the
```

```

    image resource to startup one vm instance\"      },      \"instanceOf
feringUuid\": {      \"Type\": \"String\",      \"DefaultValue\" : \"
instanceoffering-123\",      \"Description\": \"The instance offering
uuid\"      },      \"l3NetworkUuid\": {      \"Type\": \"String\",
\"Description\": \"The l3 network uuid\"      },      \"DiskOfferingUuid
\": {      \"Type\": \"String\",      \"Description\": \"DiskOfferi
ng for empty disk\"      },      \"PrimaryStorageUuid\": {      \"Type
\": \"String\",      \"Description\": \"primarystorage for initial
disk\"      },      \"HostUuid\": {      \"Type\": \"String\",      \"
Description\": \"host for initial disk\"      }      },      \"Resources\" : {
    \"WebServer1\": {      \"Type\": \"ZStack::Resource::VmInstance\",
    \"Properties\": {      \"name\" : \"vm\",      \"imageUuid\" :
{\"Ref\": \"imageUuid\"},      \"instanceOfferingUuid\": {\"Ref\":
\"instanceOfferingUuid\"},      \"l3NetworkUuids\": [{\"Ref\": \"
l3NetworkUuid\"}]      },      \"DeletionPolicy\": \"Retain\"      },
    \"WebServer2\": {      \"Type\": \"ZStack::Resource::VmInstance
\",      \"Properties\": {      \"name\" : \"vm-2\",      \"
imageUuid\" : {\"Ref\": \"imageUuid\"},      \"instanceOfferingUuid
\": {\"Ref\": \"instanceOfferingUuid\"},      \"l3NetworkUuids
\": [{\"Ref\": \"l3NetworkUuid\"}]      },      \"DependsOn\": [{\"
Ref\": \"WebServer1\"}]      },      \"EmptyVolume\": {      \"Type\":
\"ZStack::Resource::DataVolume\",      \"Properties\": {      \"
name\" : \"empty-volume\",      \"diskOfferingUuid\": {\"Ref\":
\"DiskOfferingUuid\"},      \"primaryStorageUuid\": {\"Ref\": \"
PrimaryStorageUuid\"},      \"systemTags\": [{\"Fn::Join\": [\":\",
[\"localStorage\", \"hostUuid\", {\"Ref\": \"HostUuid\"}]]}]      },
    \"DependsOn\": [{\"Ref\": \"WebServer2\"}]      },      \"AttachData
VolumeToVm\": {      \"Type\": \"ZStack::Action::AttachDataVolumeToVm
\",      \"Properties\": {      \"vmInstanceUuid\": {\"Fn::GetAtt
\": [\"WebServer1\", \"uuid\"]},      \"volumeUuid\": {\"Fn::GetAtt
\": [\"EmptyVolume\", \"uuid\"]}      }      }      },      \"Outputs\": {
    \"VmInstance\": {      \"Description\" : \"print vm instance\",
    \"Value\" : {\"Ref\": \"WebServer1\"}      }      },
    \"parameters\": {      \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790
a5\",      \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167
a6\",      \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\",
    \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\",      \"
PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\",      \"
HostUuid\": \"9b57690de23f449e99c8f0da311e568e\"}
    },
    \"systemTags\": [],
    \"userTags\": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateResourceStack":
{"name":"stack","description":"description","rollback":true,"templateContent":{"
  \"ZStackTemplateFormatVersion\" : \"2018-06-18\",      \"Description
\": \"Example for create a group vm instance in zstack.\",
  \"Parameters\" : {      \"imageUuid\": {      \"Type\" : \"String\",
    \"Description\": \"Image Uuid, represents the image resource

```

```

to startup one vm instance\"      },      \"instanceOfferingUuid
\": {      \"Type\": \"String\",      \"DefaultValue\" :
\"instanceoffering-123\",      \"Description\": \"The instance
offering uuid\"      },      \"l3NetworkUuid\": {      \"Type\":
\"String\",      \"Description\": \"The l3 network uuid\"      },
\"DiskOfferingUuid\": {      \"Type\": \"String\",      \"Description
\": \"DiskOffering for empty disk\"      },      \"PrimaryStorageUuid\":
{      \"Type\": \"String\",      \"Description\": \"primarystorage
for initial disk\"      },      \"HostUuid\": {      \"Type\":
\"String\",      \"Description\": \"host for initial disk\"
} },      \"Resources\" : {      \"WebServer1\": {      \"Type\":
\"ZStack::Resource::VmInstance\",      \"Properties\": {
\"name\" : \"vm\",      \"imageUuid\" : {\"Ref\": \"imageUuid\"},
\"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid
\"},
\"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}]
},      \"DeletionPolicy\": \"Retain\"      },      \"WebServer2\": {
\"Type\": \"ZStack::Resource::VmInstance\",      \"Properties
\": {      \"name\" : \"vm-2\",      \"imageUuid\" : {\"Ref
\": \"imageUuid\"},      \"instanceOfferingUuid\": {\"Ref\":
\"instanceOfferingUuid\"},      \"l3NetworkUuids\": [{\"Ref
\": \"l3NetworkUuid\"}]      },      \"DependsOn\": [{\"Ref\":
\"WebServer1\"}]      },      \"EmptyVolume\": {      \"Type\":
\"ZStack::Resource::DataVolume\",      \"Properties\": {
\"name\" : \"empty-volume\",      \"diskOfferingUuid\":
{\"Ref\": \"DiskOfferingUuid\"},      \"primaryStorageUuid
\": {\"Ref\": \"PrimaryStorageUuid\"},      \"systemTags\":
[{\"Fn::Join\": [\":\", [\"localStorage\", \"hostUuid\", {\"Ref
\": \"HostUuid\"}]}]}      },      \"DependsOn\": [{\"Ref\":
\"WebServer2\"}]      },      \"AttachDataVolumeToVm\": {      \"Type
\": \"ZStack::Action::AttachDataVolumeToVm\",      \"Properties\":
{      \"vmInstanceUuid\": {\"Fn::GetAtt\" : [\"WebServer1\",
\"uuid\"]},      \"volumeUuid\": {\"Fn::GetAtt\" : [\"EmptyVolume
\", \"uuid\"]}      }      },      \"Outputs\": {      \"VmInstance\":
{      \"Description\" : \"print vm instance\",      \"Value\" :
{\"Ref\": \"WebServer1\"}      }      },      \"parameters\": {\"imageUuid
\": \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid
\": \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\":
\"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\":
\"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid
\": \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\":
\"9b57690de23f449e99c8f0da311e568e\"}}}' \
http://localhost:8080/zstack/v1/cloudformation/stack/
acbf4bd4eb7838e2a624095d4f02990d/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The stack UUID.		2.5.0
name	String	body (contained in the updateReso	Optional. The resource name.		2.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		urceStack structure)			
description	String	body (contained in the updateReso urceStack structure)	Optional. The detailed description of the resource.		2.5.0
rollback	Boolean	body (contained in the updateReso urceStack structure)	Optional. Whether to roll back if stack creation fails.		2.5.0
templateContent	String	body (contained in the updateReso urceStack structure)	Optional. The stack content , which is a JSON string.		2.5.0
parameters	String	body (contained in the updateReso urceStack structure)	Optional. The parameters in the stack. The parameters are JSON strings.		2.5.0
systemTags	List	body	Optional. The system tags.		2.5.0
userTags	List	body	Optional. The user tags.		2.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d72e80d8e9c235d0976e6c5a4e3f9137",
    "name": "test",
    "description": "description",
```



```

"version": "2018-06-18",
"type": "zstack",
"templateContent": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\" : { \"Type\" : \"String\", \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\" : { \"Type\": \"String\", \"Description\": \"The instance offering uuid\" }, \"l3NetworkUuid\" : { \"Type\": \"String\", \"Description\": \"The l3 network uuid\" }, \"DiskOfferingUuid\" : { \"Type\": \"String\", \"Description\": \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\" : { \"Type\": \"String\", \"Description\": \"primarystorage for initial disk\" }, \"HostUuid\" : { \"Type\": \"String\", \"Description\": \"host for initial disk\" } }, \"Resources\" : { \"WebServer1\" : { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\" : { \"name\" : \"vm\", \"imageUuid\" : {\"Ref\": \"imageUuid\"}, \"instanceOfferingUuid\" : {\"Ref\": \"instanceOfferingUuid\"}, \"l3NetworkUuids\" : [{\"Ref\": \"l3NetworkUuid\"}], \"DeletionPolicy\": \"Retain\" }, \"WebServer2\" : { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\" : { \"name\" : \"vm-2\", \"imageUuid\" : {\"Ref\": \"imageUuid\"}, \"instanceOfferingUuid\" : {\"Ref\": \"instanceOfferingUuid\"}, \"l3NetworkUuids\" : [{\"Ref\": \"l3NetworkUuid\"}], \"DependsOn\" : [{\"Ref\": \"WebServer1\"}], \"EmptyVolume\" : { \"Type\": \"ZStack::Resource::DataVolume\", \"Properties\" : { \"name\" : \"empty-volume\", \"diskOfferingUuid\" : {\"Ref\": \"DiskOfferingUuid\"}, \"primaryStorageUuid\" : {\"Ref\": \"PrimaryStorageUuid\"}, \"systemTags\" : [{\"Fn::Join\" : [\"::\", [\"localStorage\", \"hostUuid\", {\"Ref\": \"HostUuid\"}]}] }, \"DependsOn\" : [{\"Ref\": \"WebServer2\"}], \"AttachDataVolumeToVm\" : { \"Type\": \"ZStack::Action::AttachDataVolumeToVm\", \"Properties\" : { \"vmInstanceUuid\" : {\"Fn::GetAtt\" : [\"WebServer1\", \"uuid\"]}, \"volumeUuid\" : {\"Fn::GetAtt\" : [\"EmptyVolume\", \"uuid\"]} }, \"Outputs\" : { \"VmInstance\" : { \"Description\" : \"print vm instance\", \"Value\" : {\"Ref\": \"WebServer1\"} } }, \"paramContent\" : { \"imageUuid\" : \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid\" : \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\" : \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\" : \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\" : \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\" : \"9b57690de23f449e99c8f0da311e568e\" }, \"status\": \"Created\", \"enableRollback\": true } } }

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0
inventory	ResourceStackInventory	See inventory .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.5.0
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0
elaboration	String	The reserved field. Default value: null.	2.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.5.0
name	String	The resource name.	2.5.0
description	String	The detailed description of the resource.	2.5.0
version	String	The stack version.	2.5.0
type	String	The stack type. Default type: zstack.	2.5.0
templateContent	String	The stack content, which is a JSON string.	2.5.0

Name	Type	Description	Starting Version
paramContent	String	The parameters in the stack. The parameters are JSON strings.	2.5.0
status	String	The stack status.	2.5.0
reason	String	The reason for stack creation failure.	2.5.0
enableRollback	boolean	Whether to roll back if stack creation fails.	2.5.0
createDate	Timestamp	The creation date.	2.5.0
lastOpDate	Timestamp	The last operation date.	2.5.0

SDK Sample

Java SDK

```
UpdateResourceStackAction action = new UpdateResourceStackAction();
action.uuid = "acbf4bd4eb7838e2a624095d4f02990d";
action.name = "stack";
action.description = "description";
action.rollback = true;
action.templateContent = "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\": { \"Type\" : \"String\", \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\": { \"Type\": \"String\", \"DefaultValue\" : \"instanceoffering-123\", \"Description\": \"The instance offering uuid\" }, \"l3NetworkUuid\": { \"Type\": \"String\", \"Description\": \"The l3 network uuid\" }, \"DiskOfferingUuid\": { \"Type\": \"String\", \"Description\": \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\": { \"Type\": \"String\", \"Description\": \"primarystorage for initial disk\" }, \"HostUuid\": { \"Type\": \"String\", \"Description\": \"host for initial disk\" } }, \"Resources\" : { \"WebServer1\": { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\": { \"name\" : \"vm\", \"imageUuid\" : {\"Ref\": \"imageUuid\"}, \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"}, \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}] }, \"DeletionPolicy\": \"Retain\" }, \"WebServer2\": { \"Type\": \"ZStack::Resource::VmInstance\", \"Properties\": { \"name\" : \"vm-2\", \"imageUuid\" : {\"Ref\": \"imageUuid\"}, \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"}, \"l3NetworkUuids\": [{\"Ref\": \"l3NetworkUuid\"}] }, \"DependsOn\" : [{\"Ref\": \"WebServer1\"}] }, \"EmptyVolume\": { \"Type\": \"ZStack::Resource::DataVolume\", \"Properties\": { \"name\" : \"empty-volume\", \"diskOfferingUuid\": {\"Ref\": \"DiskOfferingUuid\"}, \"primaryStorageUuid\": {\"Ref\": \"PrimaryStorageUuid\"}, \"systemTags\": [{\"Fn::Join\": [\":\", [\"localStorage\", \"hostUuid\", {\"Ref\": \"HostUuid\"}]]}], \"DependsOn\": [{\"Ref\": \"WebServer2\"}] }, \"AttachDataVolumeToVm\": { \"Type\": \"ZStack::Action::
```

```
AttachDataVolumeToVm", "Properties": { "vmInstanceUuid": {
  {"Fn::GetAtt" : ["WebServer1", "uuid"]}, "volumeUuid": {"Fn::
GetAtt" : ["EmptyVolume", "uuid"]} } }, "Outputs": { "
VmInstance": { "Description" : "print vm instance", "Value
" : {"Ref": "WebServer1"} } } }";
action.parameters = "{ \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790
a5\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\",
\"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferi
ngUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\": \"
06c35e7f42264a74abb5b828367169fe\", \"HostUuid\": \"9b57690de23f449e99c8
f0da311e568e\"}";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateResourceStackAction.Result res = action.call();
```

Python SDK

```
UpdateResourceStackAction action = UpdateResourceStackAction()
action.uuid = "acbf4bd4eb7838e2a624095d4f02990d"
action.name = "stack"
action.description = "description"
action.rollback = true
action.templateContent = "{ \"ZStackTemplateFormatVersion\" : \"2018-
06-18\", \"Description\": \"Example for create a group vm instance in
zstack.\", \"Parameters\" : { \"imageUuid\" : { \"Type\" : \"String
\", \"Description\": \"Image Uuid, represents the image resource to
startup one vm instance\" }, \"instanceOfferingUuid\" : { \"
Type\": \"String\", \"DefaultValue\" : \"instanceoffering-123\",
\"Description\": \"The instance offering uuid\" }, \"l3NetworkU
uid\" : { \"Type\": \"String\", \"Description\": \"The l3 network
uuid\" }, \"DiskOfferingUuid\" : { \"Type\": \"String\",
\"Description\": \"DiskOffering for empty disk\" }, \"PrimarySto
rageUuid\" : { \"Type\": \"String\", \"Description\": \"primarysto
rage for initial disk\" }, \"HostUuid\" : { \"Type\": \"String\",
\"Description\": \"host for initial disk\" } }, \"Resources\" :
{ \"WebServer1\" : { \"Type\": \"ZStack::Resource::VmInstance\",
\"Properties\" : { \"name\" : \"vm\", \"imageUuid\" : {\"Ref
\": \"imageUuid\"}, \"instanceOfferingUuid\" : {\"Ref\": \"instanceOf
feringUuid\"}, \"l3NetworkUuids\" : [{\"Ref\": \"l3NetworkUuid\"}]
}, \"DeletionPolicy\": \"Retain\" }, \"WebServer2\" : {
\"Type\": \"ZStack::Resource::VmInstance\", \"Properties\" : {
\"name\" : \"vm-2\", \"imageUuid\" : {\"Ref\": \"imageUuid\"},
\"instanceOfferingUuid\" : {\"Ref\": \"instanceOfferingUuid\"},
\"l3NetworkUuids\" : [{\"Ref\": \"l3NetworkUuid\"}] }, \"DependsOn
\" : [{\"Ref\": \"WebServer1\"}] }, \"EmptyVolume\" : { \"Type\": \"
ZStack::Resource::DataVolume\", \"Properties\" : { \"name\" :
\"empty-volume\", \"diskOfferingUuid\" : {\"Ref\": \"DiskOfferingUuid
\"}, \"primaryStorageUuid\" : {\"Ref\": \"PrimaryStorageUuid\"},
\"systemTags\" : [{\"Fn::Join\": [\":\", [\"localStorage\", \"hostUuid\", {\"
Ref\": \"HostUuid\"}]]}], \"DependsOn\" : [{\"Ref\": \"WebServer2
\"}] }, \"AttachDataVolumeToVm\" : { \"Type\": \"ZStack::Action::
AttachDataVolumeToVm\", \"Properties\" : { \"vmInstanceUuid\":
{\"Fn::GetAtt\" : [\"WebServer1\", \"uuid\"]}, \"volumeUuid\": {\"Fn::
GetAtt\" : [\"EmptyVolume\", \"uuid\"]} } }, \"Outputs\" : { \"
VmInstance\" : { \"Description\" : \"print vm instance\", \"Value
\" : {\"Ref\": \"WebServer1\"} } } }"
action.parameters = "{ \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790
a5\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\",
\"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferi
ngUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\": \"
06c35e7f42264a74abb5b828367169fe\", \"HostUuid\": \"9b57690de23f449e99c8
f0da311e568e\"}"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateResourceStackAction.Result res = action.call()
```

5.5.10 QueryResourceStack

API Request

URLs

```
GET zstack/v1/cloudformation/stack
GET zstack/v1/cloudformation/stack/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cloudformation/stack?
q=name=test
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cloudformation/
stack/071098a5d0b931758b2d96f3b947db06
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryResourceStack**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "33c82809544f38e886ea0e9409772057",
      "name": "test",
      "description": "description",
      "version": "2018-06-18",
      "type": "zstack",
      "templateContent": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\": \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\": { \"Type\": \"String\", \"Description\": \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\": { \"Type\": \"String\", \"Description\": \"The instance offering uuid\" }, \"l3NetworkUuid\": { \"Type\": \"String\", \"Description\": \"The l3 network uuid\" }, \"DiskOfferingUuid\": { \"Type\": \"String\", \"Description\": \"DiskOffering for empty disk\" }, \"PrimarySto
```

```

ageUuid\": {
  \"Type\": \"String\",
  \"Description\": \"
primarystorage for initial disk\"
},
\"HostUuid\": {
  \"Type\": \"String\",
  \"Description\": \"host for initial disk\"
}
},
\"Resources\": {
  \"WebServer1\": {
    \"Type\": \"
ZStack::Resource::VmInstance\",
    \"Properties\": {
      \"name
\": \"vm\",
      \"imageUuid\": {\"Ref\": \"imageUuid\"},
      \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"},
      \"l3NetworkUids\": [{\"Ref\": \"l3NetworkUuid\"}]
    },
    \"DeletionPolicy\": \"Retain\",
    \"WebServer2\": {
      \"Type
\": \"ZStack::Resource::VmInstance\",
      \"Properties\": {
        \"name
\": \"vm-2\",
        \"imageUuid\": {\"Ref\": \"imageUuid\"},
        \"instanceOfferingUuid\": {\"Ref\": \"instanceOfferingUuid\"},
        \"l3NetworkUids\": [{\"Ref\": \"l3NetworkUuid\"}]
      },
      \"DependsOn\": [{\"Ref\": \"WebServer1\"}]
    },
    \"EmptyVolume\": {
      \"Type\": \"ZStack::Resource::DataVolume\",
      \"Properties
\": {
        \"name\": \"empty-volume\",
        \"diskOfferingUuid\":
        {\"Ref\": \"DiskOfferingUuid\"},
        \"primaryStorageUuid\": {\"
Ref\": \"PrimaryStorageUuid\"},
        \"systemTags\": [{\"Fn::Join\":
        [\":\", [\"localStorage\", \"hostUuid\", {\"Ref\": \"HostUuid\"}]]}]
      },
      \"DependsOn\": [{\"Ref\": \"WebServer2\"}]
    },
    \"AttachDataVolumeToVm\": {
      \"Type\": \"ZStack::Action::AttachData
VolumeToVm\",
      \"Properties\": {
        \"vmInstanceUuid\": {\"Fn
::GetAtt\": [\"WebServer1\", \"uuid\"]},
        \"volumeUuid\": {\"
Fn::GetAtt\": [\"EmptyVolume\", \"uuid\"]}
      },
      \"Outputs
\": {
        \"VmInstance\": {
          \"Description\": \"print vm instance
\",
          \"Value\": {\"Ref\": \"WebServer1\"}
        },
        \"paramContent\": \"{ \"imageUuid\": \"8fcfe758a7eb13118d73
44a08ff790a5\", \"instanceOfferingUuid\": \"751f662a32184933aff4
87f5c6e167a6\", \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611
cb\", \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\",
        \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\", \"
HostUuid\": \"9b57690de23f449e99c8f0da311e568e\"}\",
        \"status\": \"Created\",
        \"enableRollback\": true
      }
    }
  }
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0
inventories	List	See inventories .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	2.5.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0
elaboration	String	The reserved field. Default value: null.	2.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.5.0
name	String	The resource name.	2.5.0
description	String	The detailed description of the resource.	2.5.0
version	String	The stack version.	2.5.0
type	String	The stack type. Default type: zstack.	2.5.0
templateContent	String	The stack content, which is a JSON string.	2.5.0
paramContent	String	The parameters in the stack. The parameters are JSON strings.	2.5.0
status	String	The stack status.	2.5.0
reason	String	The reason for stack creation failure.	2.5.0

Name	Type	Description	Starting Version
enableRollback	boolean	Whether to roll back if stack creation fails.	2.5.0
createDate	Timestamp	The creation date.	2.5.0
lastOpDate	Timestamp	The last operation date.	2.5.0

SDK Sample

Java SDK

```
QueryResourceStackAction action = new QueryResourceStackAction();
action.conditions = asList("name=test");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryResourceStackAction.Result res = action.call();
```

Python SDK

```
QueryResourceStackAction action = QueryResourceStackAction()
action.conditions = ["name=test"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryResourceStackAction.Result res = action.call()
```

5.5.11 GetResourceFromResourceStack

API Request

URLs

```
GET zstack/v1/cloudformation/stack/resources
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cloudformation/stack/resources?
uuid=37c961a530033ca1abd0650684c199db
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	query	The stack UUID.		2.5.0
systemTags	List	query	Optional. The system tags.		2.5.0
userTags	List	query	Optional. The user tags.		2.5.0

API Response

Sample Response

```
{
  "resources": [
    {
      "VmInstance": {
        "uuid": "70b885e0948b34a5831c75a457322b47",
        "name": "Test-VM",
        "description": "web server VM",
        "zoneUuid": "d35a2b4b992c3293ac1bc10096de6cb2",
        "clusterUuid": "8179e9b50398308aa0e2bf4eaf6f9712",
        "imageUuid": "b3aede2f9ba32e7a4442a48860180c3",
        "hostUuid": "f2d9365120cf36ef961e8b522e0c319d",
        "lastHostUuid": "93b923aa43433196895dada30f9dc458",
        "instanceOfferingUuid": "61c0ba5753753a39b6c792ae6ef94915",
        "rootVolumeUuid": "7d45c0a312ce37ffacc75005da14dcae",
        "platform": "Linux",
        "defaultL3NetworkUuid": "e8604346d3d63ed790f0ba8d443af3d9",
        "type": "UserVm",
        "hypervisorType": "KVM",
        "memorySize": 8.589934592E9,
        "cpuNum": 1.0,
        "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM",
        "state": "Running",
        "vmNics": [
          {
            "uuid": "db23a9ba4d05362da2a58c51a9e50f65",
            "vmInstanceUuid": "70b885e0948b34a5831c75a457322b47",
            "usedIpUuid": "bf43c6c9ab453ed2be711573a1b959a0",
            "l3NetworkUuid": "e8604346d3d63ed790f0ba8d443af3d9",
            "ip": "192.168.1.10",
            "mac": "00:0c:29:bd:99:fc",
            "hypervisorType": "KVM",
            "netmask": "255.255.255.0",
            "gateway": "192.168.1.1",
            "deviceId": 0.0,
            "createDate": "Nov 14, 2017 10:20:57 PM",
            "lastOpDate": "Nov 14, 2017 10:20:57 PM"
          }
        ],
        "allVolumes": [
          {
```

```

    "uuid": "7d45c0a312ce37ffacc75005da14dcae",
    "name": "Root-Volume-For-VM-70b885e0948b34a5831c75a457322b
47",
    "primaryStorageUuid": "657bf5b4fe7c31ae9a50dd703dbbf958",
    "vmInstanceUuid": "70b885e0948b34a5831c75a457322b47",
    "diskOfferingUuid": "1c10223d580b3b889d1e06e6ad94f398",
    "rootImageUuid": "b3aedde2f9ba32e7a4442a48860180c3",
    "installPath": "/Cloud_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-7d45c0a312ce37ffacc75005da14dcae/7d45c0a312
ce37ffacc75005da14dcae.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}
}
}
}

```

Name	Type	Description	Starting Version
resources	List	The resource list in the stack.	2.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.5.0
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	2.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.5.0

SDK Sample

Java SDK

```
GetResourceFromResourceStackAction action = new GetResourceFromResourceStackAction();
action.uuid = "37c961a530033ca1abd0650684c199db";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetResourceFromResourceStackAction.Result res = action.call();
```

Python SDK

```
GetResourceFromResourceStackAction action = GetResourceFromResourceStackAction()
action.uuid = "37c961a530033ca1abd0650684c199db"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetResourceFromResourceStackAction.Result res = action.call()
```

5.5.12 QueryEventFromResourceStack

API Request

URLs

```
GET zstack/v1/cloudformation/event
GET zstack/v1/cloudformation/event/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```



```

n    \"lastHostUuid\": \"9b57690de23f449e99c8f0da311e568e\",\\n
    \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\",\\n
    \"rootVolumeUuid\": \"17c96f79a28347128f1b147c3ef0d12b\",\\n
    \"platform\": \"Linux\",\\n    \"defaultL3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\",\\n    \"type\": \"UserVm\",\\n
    \"hypervisorType\": \"KVM\",\\n    \"memorySize\": 1073741824,\\n
    \"cpuNum\": 1,\\n    \"cpuSpeed\": 0,\\n    \"allocatorStrategy\": \"LeastVmPreferredHostAllocatorStrategy\",\\n    \"createDate\":
    \"Jun 21, 2018 11:31:46 AM\",\\n    \"lastOpDate\": \"Jun 21, 2018
    11:31:47 AM\",\\n    \"state\": \"Running\",\\n    \"vmNics\": [\\n
    {\\n        \"uuid\": \"a25592b3aced44dc889cede4f8368e52\",\\n
    \"vmInstanceUuid\": \"cebf83ef8ec04f7a9fbc80a54043b749\",\\n
    \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\",\\n
    \"ip\": \"10.75.0.98\",\\n    \"mac\": \"fa:91:99:e1:d1:00\",\\n
    \"netmask\": \"255.0.0.0\",\\n    \"gateway\": \"10.0.0.1\",\\n
    \"deviceId\": 0,\\n    \"createDate\": \"Jun 21, 2018 11:31:46 AM\",\\n
    \"lastOpDate\": \"Jun 21, 2018 11:31:46 AM\",\\n    }\\n    ],\\n    \"allVolumes\": [\\n
    {\\n        \"uuid\": \"17c96f79a28347128f1b147c3ef0d12b\",\\n
    \"name\": \"ROOT-for-vm\",\\n    \"description\": \"Root volume for VM[uuid:cebf83ef8ec04f7a9fbc80a54043b749]\",\\n
    \"primaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\",\\n
    \"vmInstanceUuid\": \"cebf83ef8ec04f7a9fbc80a54043b749\",\\n
    \"rootImageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\",\\n
    \"installPath\": \"/Cloud_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-17c96f79a28347128f1b147c3ef0d12b/17c96f79a28347128f1b147c3ef0d12b.qcow2\",\\n
    \"type\": \"Root\",\\n    \"format\": \"qcow2\",\\n
    \"size\": 1610612736,\\n    \"actualSize\": 1342308352,\\n
    \"deviceId\": 0,\\n    \"state\": \"Enabled\",\\n    \"status\": \"Ready\",\\n
    \"createDate\": \"Jun 21, 2018 11:31:46 AM\",\\n
    \"lastOpDate\": \"Jun 21, 2018 11:31:46 AM\",\\n    \"isShareable\": false\\n    }\\n
    ]\\n    }\\n}\\n    },
    \"resourceName\": \"WebServer1\",
    \"actionStatus\": \"Finish\",
    \"stackUuid\": \"076e5c4edce23f09af5a842ffdfb0cb6\"
    }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0
inventories	List	See inventories .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	2.5.0

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0
elaboration	String	The reserved field. Default value: null.	2.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.5.0

#inventories

Name	Type	Description	Starting Version
id	long	The event ID.	2.5.0
description	String	The detailed description of the resource.	2.5.0
action	String	The event name.	2.5.0
content	String	The event parameter list.	2.5.0
resourceName	String	The resource name.	2.5.0
actionStatus	String	The action status.	2.5.0
stackUuid	String	The stack UUID.	2.5.0
duration	String	The event duration.	2.5.0
createDate	Timestamp	The creation date.	2.5.0
lastOpDate	Timestamp	The last operation date.	2.5.0

SDK Sample

Java SDK

```
QueryEventFromResourceStackAction action = new QueryEventFromResourceStackAction();
action.conditions = asList("name=test");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryEventFromResourceStackAction.Result res = action.call();
```

Python SDK

```
QueryEventFromResourceStackAction action = QueryEventFromResourceStackAction()
action.conditions = ["name=test"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryEventFromResourceStackAction.Result res = action.call()
```

5.5.13 RestartResourceStack

API Request

URLs

```
PUT zstack/v1/cloudformation/stack/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "restartResourceStack": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"restartResourceStack":{}}' http://localhost:8080/zstack/v1/cloudformation/stack/35b245eed7fd317d8c7f2b615d70ded1/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.5.0
systemTags	List	body	Optional. The system tags.		2.5.0
userTags	List	body	Optional. The user tags.		2.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "88cf0d7fd9f8326081cbf268fe07566f",
    "name": "test",
    "description": "description",
    "version": "2018-06-18",
    "type": "zstack",
    "templateContent": "{ \"ZStackTemplateFormatVersion\" : \"2018-06-18\", \"Description\" : \"Example for create a group vm instance in zstack.\", \"Parameters\" : { \"imageUuid\" : { \"Type\" : \"String\", \"Description\" : \"Image Uuid, represents the image resource to startup one vm instance\" }, \"instanceOfferingUuid\" : { \"Type\" : \"String\", \"Description\" : \"The instance offering uuid\" }, \"l3NetworkUuid\" : { \"Type\" : \"String\", \"Description\" : \"The l3 network uuid\" }, \"DiskOfferingUuid\" : { \"Type\" : \"String\", \"Description\" : \"DiskOffering for empty disk\" }, \"PrimaryStorageUuid\" : { \"Type\" : \"String\", \"Description\" : \"primarystorage for initial disk\" }, \"HostUuid\" : { \"Type\" : \"String\", \"Description\" : \"host for initial disk\" } }, \"Resources\" : { \"WebServer1\" : { \"Type\" : \"ZStack::Resource::VmInstance\", \"Properties\" : { \"name\" : \"vm\", \"imageUuid\" : { \"Ref\" : \"imageUuid\" }, \"instanceOfferingUuid\" : { \"Ref\" : \"instanceOfferingUuid\" }, \"l3NetworkUuids\" : [ { \"Ref\" : \"l3NetworkUuid\" } ], \"DeletionPolicy\" : \"Retain\" }, \"WebServer2\" : { \"Type\" : \"ZStack::Resource::VmInstance\", \"Properties\" : { \"name\" : \"vm-2\", \"imageUuid\" : { \"Ref\" : \"imageUuid\" }, \"instanceOfferingUuid\" : { \"Ref\" : \"instanceOfferingUuid\" }, \"l3NetworkUuids\" : [ { \"Ref\" : \"l3NetworkUuid\" } ], \"DependsOn\" : [ { \"Ref\" : \"WebServer1\" } ], \"EmptyVolume\" : { \"Type\" : \"ZStack::Resource::DataVolume\", \"Properties\" : { \"name\" : \"empty-volume\", \"diskOfferingUuid\" : { \"Ref\" : \"DiskOfferingUuid\" }, \"primaryStorageUuid\" : { \"Ref\" : \"PrimaryStorageUuid\" }, \"systemTags\" : [ { \"Fn::Join\" : [ \"::\", [ \"localStorage\", \"hostUuid\", { \"Ref\" : \"HostUuid\" } ] ] } ], \"DependsOn\" : [ { \"Ref\" : \"WebServer2\" } ], \"AttachDataVolumeToVm\" : { \"Type\" : \"ZStack::Action::AttachDataVolumeToVm\", \"Properties\" : { \"vmInstanceUuid\" : { \"Fn::GetAtt\" : [ \"WebServer1\", \"uuid\" ] }, \"volumeUuid\" : { \"Fn::GetAtt\" : [ \"EmptyVolume\", \"uuid\" ] } } }, \"Outputs
```



```

\": {
  \"VmInstance\": {
    \"Description\" : \"print vm instance\",
    \"Value\" : {\"Ref\": \"WebServer1\"} } },
  \"paramContent\": \"{ \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\": \"9b57690de23f449e99c8f0da311e568e\" }\",
  \"status\": \"Created\",
  \"enableRollback\": true
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0
inventory	ResourceStackInventory	See inventory .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.5.0
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0
elaboration	String	The reserved field. Default value: null.	2.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.5.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.5.0
name	String	The resource name.	2.5.0
description	String	The detailed description of the resource.	2.5.0
version	String	The stack version.	2.5.0
type	String	The stack type. Default type: zstack.	2.5.0
templateContent	String	The stack content, which is a JSON string.	2.5.0
paramContent	String	The parameters in the stack. The parameters are JSON strings.	2.5.0
status	String	The stack status.	2.5.0
reason	String	The reason for stack creation failure.	2.5.0
enableRollback	Boolean	Whether to roll back if stack creation fails.	2.5.0
createDate	Timestamp	The creation date.	2.5.0
lastOpDate	Timestamp	The last operation date.	2.5.0

SDK Sample

Java SDK

```
RestartResourceStackAction action = new RestartResourceStackAction();
action.uuid = "35b245eed7fd317d8c7f2b615d70ded1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
RestartResourceStackAction.Result res = action.call();
```

Python SDK

```
RestartResourceStackAction action = RestartResourceStackAction()  
action.uuid = "35b245eed7fd317d8c7f2b615d70ded1"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
RestartResourceStackAction.Result res = action.call()
```

5.5.14 CheckStackTemplateParameters

API Request

URLs

```
POST zstack/v1/cloudformation/stack/check
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "params": {  
    "type": "zstack",  
    "uuid": "69c3bbde1b693995a5998361a7f017e7"  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X POST -d '{"params":  
{ "type": "zstack", "uuid": "69c3bbde1b693995a5998361a7f017e7" } }' http://  
localhost:8080/zstack/v1/cloudformation/stack/check
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional. The template type. Default type: zstack.	zstack	2.5.0
templateContent	String	body (contained in the params structure)	Optional. The template content, which is a JSON string.		2.5.0
uuid	String	body (contained in the params structure)	The template UUID.		2.5.0
systemTags	List	body	Optional. The system tags.		2.5.0
userTags	List	body	Optional. The user tags.		2.5.0

API Response

Sample Response

```
{
  "parameters": [
    {
      "paramName": "imageUuid",
      "type": "String",
      "defaultValue": "ff1373b10ee93b15b347f7abfb4bb5b6",
      "description": "Image Uuid, represents the image resource to startup one vm instance",
      "resourceType": "Image"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.5.0
parameters	List	See parameters .	2.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.5.0
description	String	The brief description of the error.	2.5.0
details	String	The details about the error.	2.5.0
elaboration	String	The reserved field. Default value: null.	2.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.5.0

#parameters

Name	Type	Description	Starting Version
paramName	String	The parameter name.	2.5.0
type	String	The parameter type.	2.5.0
defaultValue	String	The default value.	2.5.0
description	String	The detailed description of the resource.	2.5.0
noEcho	Boolean	Whether to mask the parameter value to prevent it from being displayed in the console, command line tools, or API.	2.5.0

Name	Type	Description	Starting Version
label	String	Specifies a name or description for a parameter that the frontend displays.	2.5.0
constraintDescription	String	Explains a constraint when the constraint is violated. If the verification fails, the corresponding content is returned.	2.5.0
resourceType	String	The type of a resource referenced by the event returned if the parameter is the ZStack resource. When the resource type cannot be determined, null is returned.	2.5.0

SDK Sample

Java SDK

```
CheckStackTemplateParametersAction action = new CheckStackTemplateParametersAction();
action.type = "zstack";
action.uuid = "69c3bbde1b693995a5998361a7f017e7";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckStackTemplateParametersAction.Result res = action.call();
```

Python SDK

```
CheckStackTemplateParametersAction action = CheckStackTemplateParametersAction()
action.type = "zstack"
action.uuid = "69c3bbde1b693995a5998361a7f017e7"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CheckStackTemplateParametersAction.Result res = action.call()
```

5.5.15 DecodeStackTemplate

API Request

URLs

```
POST zstack/v1/cloudformation/stack/preview/resource
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "type": "zstack",
    "uuid": "7628ef91277e392ca996d6457537bb45",
    "parameters": "{ \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\\\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\\\", \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\\\", \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\\\", \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\\\", \"HostUuid\": \"9b57690de23f449e99c8f0da311e568e\\\"}"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params": {
  "type": "zstack", "uuid": "7628ef91277e392ca996d6457537bb45", "parameters": "{
    \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\\\",
    \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\\\",
    \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\\\",
    \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\\\",
    \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\\\",
    \"HostUuid\": \"9b57690de23f449e99c8f0da311e568e\\\"}"
  } }' http://localhost:8080/zstack/v1/cloudformation/stack/preview/resource
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
type	String	body(contained in the params structure)	Optional. The template type.	zstack	3.0.0
templateContent	String	body(contained in the params structure)	Optional. The template content.		3.0.0
uuid	String	body(contained in the params structure)	Optional. The template UUID.		3.0.0
parameters	String	body(contained in the params structure)	Optional. The request parameters in JSON format.		3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0
userTags	List	body	Optional. The user tags.		3.0.0
preparameters	String	body(contained in the params structure)	Optional. The pre-rendered request parameters in JSON format.		3.9.0

API Response

Sample Response

```
{
  "resources": [
    {
      "resourceName": "WebServer",
      "resourceType": "VmInstance",
      "deletePolicy": "Retain",
      "inDegree": [
        "l3",
        "instanceOfferingUuid",
        "addDns",
        "imageUuid"
      ],
      "properties": {
        "uuid": "d55161ef863942d8a53a4f8448074749"
      },
      "type": "Resource",
    }
  ]
}
```



```

    "created": false,
    "mockFailed": false
  },
  {
    "resourceName": "l3",
    "resourceType": "L3Network",
    "inDegree": [
      "l2NetworkUuid"
    ],
    "properties": {
      "uuid": "d55161ef863942d8a53a4f84448074749"
    },
    "type": "Resource",
    "created": false,
    "mockFailed": false
  },
  {
    "resourceName": "addIpRange",
    "inDegree": [
      "l3"
    ],
    "properties": {
      "uuid": "d55161ef863942d8a53a4f84448074749"
    },
    "type": "Action",
    "created": false,
    "mockFailed": false
  },
  {
    "resourceName": "addDns",
    "inDegree": [
      "l3",
      "addIpRange"
    ],
    "properties": {
      "uuid": "d55161ef863942d8a53a4f84448074749"
    },
    "type": "Action",
    "created": false,
    "mockFailed": false
  },
  {
    "resourceName": "imageUuid",
    "resourceType": "Image",
    "inDegree": [],
    "properties": {
      "uuid": "d55161ef863942d8a53a4f84448074749"
    },
    "type": "Resource",
    "created": true,
    "mockFailed": false
  },
  {
    "resourceName": "instanceOfferingUuid",
    "resourceType": "InstanceOffering",
    "inDegree": [],
    "properties": {
      "uuid": "d55161ef863942d8a53a4f84448074749"
    },
    "type": "Resource",
    "created": true,
    "mockFailed": false
  }

```

```

    },
    {
      "resourceName": "l2NetworkUuid",
      "resourceType": "L2Network",
      "inDegree": [],
      "properties": {
        "uuid": "d55161ef863942d8a53a4f8448074749"
      },
      "type": "Resource",
      "created": true,
      "mockFailed": false
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
resources	List	For more information, see resources .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current	3.0.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#resources

Name	Type	Description	Starting Version
resourceName	String	The resource name in the stack template.	3.0.0
resourceType	String	The resource type.	3.0.0
deletePolicy	String	The deletion policy.	3.0.0
description	String	The resource description in the stack template.	3.0.0
inDegree	Set	The dependent resources.	3.0.0
action	String	The action.	3.0.0
properties	Map	The properties.	3.0.0
results	Object	The operation results . An empty string is returned if no operation is performed .	3.0.0
created	boolean	Indicates whether the resources are created.	3.0.0
mockFailed	boolean	Indicates whether mock failed.	3.0.0
type	ResourceType	For more information, see type .	3.0.0

#type

Name	Type	Description	Starting Version
name	String	The resource type.	3.0.0
ordinal	int		3.0.0

SDK Sample

Java SDK

```
DecodeStackTemplateAction action = new DecodeStackTemplateAction();
action.type = "zstack";
action.uuid = "7628ef91277e392ca996d6457537bb45";
action.parameters = "{ \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\": \"9b57690de23f449e99c8f0da311e568e\"}";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DecodeStackTemplateAction.Result res = action.call();
```

Python SDK

```
DecodeStackTemplateAction action = DecodeStackTemplateAction()
action.type = "zstack"
action.uuid = "7628ef91277e392ca996d6457537bb45"
action.parameters = "{ \"imageUuid\": \"8fcfe758a7eb13118d7344a08ff790a5\", \"instanceOfferingUuid\": \"751f662a32184933aff487f5c6e167a6\", \"l3NetworkUuid\": \"1245de5c2d28454bb63e60575ec611cb\", \"DiskOfferingUuid\": \"ad0b4ea4c747401c92a7c990f7375cf1\", \"PrimaryStorageUuid\": \"06c35e7f42264a74abb5b828367169fe\", \"HostUuid\": \"9b57690de23f449e99c8f0da311e568e\"}"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DecodeStackTemplateAction.Result res = action.call()
```

5.5.16 GetResourceStackFromResource

API Request

URLs

```
GET zstack/v1/cloudformation/resources/stack
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cloudformation/resources/stack?resourceUuid=fad8b8f55961311a82b82a61d8b67fc5
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
resourceUuid	String	query	The resource UUID.		3.9.0
systemTags	List	query	Optional. The system tags.		3.9.0
userTags	List	query	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "stack": {
    "stackUuid": "4700be6752c037b69c74bd06eedf0308"
  }
}
```

Name	Type	Description	Starting Version
stack	Map	The stack.	3.9.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

SDK Sample

Java SDK

```
GetResourceStackFromResourceAction action = new GetResourceStackFromResourceAction();
action.resourceUuid = "fad8b8f55961311a82b82a61d8b67fc5";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetResourceStackFromResourceAction.Result res = action.call();
```

Python SDK

```
GetResourceStackFromResourceAction action = GetResourceStackFromResourceAction()
action.resourceUuid = "fad8b8f55961311a82b82a61d8b67fc5"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetResourceStackFromResourceAction.Result res = action.call()
```

5.5.17 GetResourceStackVmStatus

API Request

URLs

```
GET zstack/v1/cloudformation/stack/monitor/vmstatus
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/cloudformation/stack/monitor/vmstatus?uuid=8f0e4af072913507a434a2c7a8bd1d0a
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	query	The resource UUID.		3.9.0
systemTags	List	query	Optional. The system tags.		3.9.0
userTags	List	query	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "portStatus": {}
}
```

Name	Type	Description	Starting Version
portStatus	Map	The port monitoring status. Options: open initialize close.	3.9.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

SDK Sample

Java SDK

```
GetResourceStackVmStatusAction action = new GetResourceStackVmStatusAction();
action.uuid = "8f0e4af072913507a434a2c7a8bd1d0a";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetResourceStackVmStatusAction.Result res = action.call();
```

Python SDK

```
GetResourceStackVmStatusAction action = GetResourceStackVmStatusAction()
action.uuid = "8f0e4af072913507a434a2c7a8bd1d0a"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
GetResourceStackVmStatusAction.Result res = action.call()
```

5.5.18 AddResourceStackVmPortMonitor

API Request

URLs

```
POST zstack/v1/cloudformation/stack/monitor/addvm
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "stackUuid": "26386ffc6d43365d87aef19fdd32c6a1",
    "vmInstanceUuid": "29ddc109dd983b7fb74a7988ebbed12d",
    "port": 22.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"stackUuid":"26386ffc6d43365d87aef19fdd32c6a1","vmInstanceUuid":"29ddc109dd983b7
http://localhost:8080/zstack/v1/cloudformation/stack/monitor/addvm
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
stackUuid	String	body (contained in the params structure)	Optional. The stack UUID.		3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
vmInstance Uuid	String	body (contained in the params structure)	The VM instance UUID		3.9.0
port	Integer	body (contained in the params structure)	The port No.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddResourceStackVmPortMonitorAction action = new AddResourceStackVmPortMonitorAction();
action.stackUuid = "26386ffc6d43365d87aef19fdd32c6a1";
action.vmInstanceUuid = "29ddc109dd983b7fb74a7988ebbed12d";
action.port = 22.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddResourceStackVmPortMonitorAction.Result res = action.call();
```

Python SDK

```
AddResourceStackVmPortMonitorAction action = AddResourceStackVmPortMonitorAction()
action.stackUuid = "26386ffc6d43365d87aef19fdd32c6a1"
action.vmInstanceUuid = "29ddc109dd983b7fb74a7988ebbed12d"
action.port = 22.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddResourceStackVmPortMonitorAction.Result res = action.call()
```

5.5.19 DeleteResourceStackVmPortMonitor

API Request

URLs

```
DELETE zstack/v1/cloudformation/stack/monitor/delvm
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/cloudformation/stack/
monitor/delvm?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
stackUuid	String	body	Optional. The stack UUID		3.9.0
vmInstance Uuid	String	body	The VM instance UUID		3.9.0
port	Integer	body	Optional. The port No.		3.9.0
deleteMode	String	body	Optional. The delete mode.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
```

```
"error": {
  "code": "SYS.1001",
  "description": "A message or a operation timeout",
  "details": "Create VM on KVM timeout after 300s"
}
```

SDK Sample

Java SDK

```
DeleteResourceStackVmPortMonitorAction action = new DeleteResourceStackVmPortMonitorAction();
action.stackUuid = "2683832bb7d53245acd3012da44e7fe6";
action.vmInstanceUuid = "ffa8ab9746de3edcb1bc1245eef8868d";
action.port = 22.0;
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteResourceStackVmPortMonitorAction.Result res = action.call();
```

Python SDK

```
DeleteResourceStackVmPortMonitorAction action = DeleteResourceStackVmPortMonitorAction()
action.stackUuid = "2683832bb7d53245acd3012da44e7fe6"
action.vmInstanceUuid = "ffa8ab9746de3edcb1bc1245eef8868d"
action.port = 22.0
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteResourceStackVmPortMonitorAction.Result res = action.call()
```

5.6 Bare Metal Management (Plus)

The Bare Metal Management feature is provided in a separate module. Before you can use this feature, you need to purchase the Plus License of Bare Metal Management, in addition to the Base License.

5.6.1 Bare Metal Management Operations

5.6.1.1 CreateBaremetalChassis

API Request

URLs

```
POST zstack/v1/baremetal/chassis
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "test",
    "clusterUuid": "bf598e729e61382ab2486ac40f25c425",
    "ipmiAddress": "1.1.1.1",
    "ipmiPort": "623.0",
    "ipmiUsername": "root",
    "ipmiPassword": "password"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"test","clusterUuid":"bf598e729e61382ab2486ac40f25c425","ipmiAddress":"1.
http://localhost:8080/zstack/v1/baremetal/chassis
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the bare metal chassis.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the bare metal chassis.		2.6.0
clusterUuid	String	body (contained in the params structure)	The UUID of the cluster where the bare metal chassis resides.		2.6.0
ipmiAddress	String	body (contained in the params structure)	The IPMI address of the bare metal chassis.		2.6.0
ipmiPort	Integer	body (contained in the params structure)	Optional. The IPMI port of the bare metal chassis.		2.6.0
ipmiUsername	String	body (contained in the params structure)	The IPMI username.		2.6.0
ipmiPassword	String	body (contained in the params structure)	The IPMI password.		2.6.0
resourceUuid	String	body (contained in the params structure)	The UUID of the bare metal chassis.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "40fae70b4c573bdfad57d031eaba0eb0",
    "ipmiAddress": "1.1.1.1",
    "ipmiPort": 623.0,
    "ipmiUsername": "root",
    "ipmiPassword": "password",
    "state": "Enabled",
    "status": "HWInfoUnknown"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalChassisInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root	2.6.0

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	2.6.0
name	String	The name of the bare metal chassis.	2.6.0
description	String	The detailed description of the bare metal chassis.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
ipmiAddress	String	The IPMI address of the bare metal chassis.	2.6.0
ipmiPort	Integer	The IPMI port of the bare metal chassis.	2.6.0
ipmiUsername	String	The IPMI username.	2.6.0
state	String		2.6.0
status	String		2.6.0
createDate	Timestamp	The time when the bare metal chassis was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal chassis was last modified.	2.6.0

SDK Sample

Java SDK

```
CreateBaremetalChassisAction action = new CreateBaremetalChassisAction();
action.name = "test";
action.clusterUuid = "bf598e729e61382ab2486ac40f25c425";
action.ipmiAddress = "1.1.1.1";
action.ipmiPort = "623.0";
action.ipmiUsername = "root";
action.ipmiPassword = "password";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateBaremetalChassisAction.Result res = action.call();
```

Python SDK

```
CreateBaremetalChassisAction action = CreateBaremetalChassisAction()
action.name = "test"
action.clusterUuid = "bf598e729e61382ab2486ac40f25c425"
action.ipmiAddress = "1.1.1.1"
action.ipmiPort = "623.0"
action.ipmiUsername = "root"
action.ipmiPassword = "password"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateBaremetalChassisAction.Result res = action.call()
```

5.6.1.2 DeleteBaremetalChassis

API Request

URLs

```
DELETE zstack/v1/baremetal/chassis/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/baremetal/chassis/
b4962c6429d23e93b9473f5aee202496
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		2.6.0
deleteMode	String	body	Optional. The mode under which the bare metal chassis is deleted.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteBaremetalChassisAction action = new DeleteBaremetalChassisAction
();
action.uuid = "b4962c6429d23e93b9473f5aee202496";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteBaremetalChassisAction.Result res = action.call();
```

Python SDK

```
DeleteBaremetalChassisAction action = DeleteBaremetalChassisAction()
action.uuid = "b4962c6429d23e93b9473f5aee202496"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteBaremetalChassisAction.Result res = action.call()
```

5.6.1.3 UpdateBaremetalChassis

API Request

URLs

```
PUT zstack/v1/baremetal/chassis/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBaremetalChassis": {
    "name": "test",
    "ipmiAddress": "1.1.1.1",
    "ipmiPort": "623.0",
    "ipmiUsername": "root",
    "ipmiPassword": "password"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBaremetalChassis":
{"name": "test", "ipmiAddress": "1.1.1.1", "ipmiPort": "623.0", "ipmiUsername": "root",
\
http://localhost:8080/zstack/v1/baremetal/chassis/
cd68e7a048d831768c622a18accd5885/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the updateBare metalChassis structure)	Optional. The name of the bare metal chassis.		2.6.0
description	String	body (contained in the updateBare metalChassis structure)	Optional. The detailed description of the bare metal chassis.		2.6.0
ipmiAddress	String	body (contained in the updateBare metalChassis structure)	Optional. The IPMI address of the bare metal chassis.		2.6.0
ipmiPort	Integer	body (contained in the updateBare metalChassis structure)	Optional. The IPMI port of the bare metal chassis.		2.6.0
ipmiUsername	String	body (contained in the updateBare metalChassis structure)	Optional. The IPMI username.		2.6.0
ipmiPassword	String	body (contained in the updateBare metalChassis structure)	Optional. The IPMI password.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2a0f218999633ee9a79fe655206b8671",
    "ipmiAddress": "1.1.1.1",
    "ipmiPort": "623.0",
    "ipmiUsername": "root",
    "ipmiPassword": "password",
    "state": "Enabled",
    "status": "Available"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalChassisInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	2.6.0
name	String	The name of the bare metal chassis.	2.6.0
description	String	The detailed description of the bare metal chassis.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
ipmiAddress	String	The IPMI address of the bare metal chassis.	2.6.0
ipmiPort	Integer	The IPMI port of the bare metal chassis.	2.6.0
ipmiUsername	String	The IPMI username.	2.6.0
state	String		2.6.0
status	String		2.6.0
createDate	Timestamp	The time when the bare metal chassis was created.	2.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the bare metal chassis was last modified.	2.6.0

SDK Sample

Java SDK

```
UpdateBaremetalChassisAction action = new UpdateBaremetalChassisAction
();
action.uuid = "cd68e7a048d831768c622a18accd5885";
action.name = "test";
action.ipmiAddress = "1.1.1.1";
action.ipmiPort = "623.0";
action.ipmiUsername = "root";
action.ipmiPassword = "password";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateBaremetalChassisAction.Result res = action.call();
```

Python SDK

```
UpdateBaremetalChassisAction action = UpdateBaremetalChassisAction()
action.uuid = "cd68e7a048d831768c622a18accd5885"
action.name = "test"
action.ipmiAddress = "1.1.1.1"
action.ipmiPort = "623.0"
action.ipmiUsername = "root"
action.ipmiPassword = "password"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateBaremetalChassisAction.Result res = action.call()
```

5.6.1.4 QueryBaremetalChassis

API Request

URLs

```
GET zstack/v1/baremetal/chassis
GET zstack/v1/baremetal/chassis/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/baremetal/chassis?
q=uuid=fcdbdc973fe138d991cb9e4c0c96bf24
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/
chassis/74db6aa9f4593fddbe914d86510e9244
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryBaremetalChassis**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "adf78dd20777349f8b1a9f31b5b1de71",
      "ipmiAddress": "1.1.1.1",
      "ipmiPort": "623.0",
      "ipmiUsername": "root",
      "ipmiPassword": "password",
      "state": "Enabled",
      "status": "Available"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventories	List	See inventories	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	2.6.0
name	String	The name of the bare metal chassis.	2.6.0
description	String	The detailed description of the bare metal chassis.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
ipmiAddress	String	The IPMI address of the bare metal chassis.	2.6.0
ipmiPort	Integer	The IPMI port of the bare metal chassis.	2.6.0
ipmiUsername	String	The IPMI username.	2.6.0
state	String		2.6.0

Name	Type	Description	Starting Version
status	String		2.6.0
createDate	Timestamp	The time when the bare metal chassis was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal chassis was last modified.	2.6.0

SDK Sample

Java SDK

```
QueryBaremetalChassisAction action = new QueryBaremetalChassisAction();
action.conditions = asList("uuid=79aa822340b2328793e624e0416cc55a");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBaremetalChassisAction.Result res = action.call();
```

Python SDK

```
QueryBaremetalChassisAction action = QueryBaremetalChassisAction()
action.conditions = ["uuid=41375a72ff0d381fac8f50f5b8e7a27f"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBaremetalChassisAction.Result res = action.call()
```

5.6.1.5 BatchCreateBaremetalChassis

API Request

URLs

```
POST zstack/v1/baremetal/chassis/from-file
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "baremetalChassisInfo": "FILE CONTENT ENCODE BY BASE64"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"baremetalChassisInfo":"FILE CONTENT ENCODE BY BASE64"}}' http://localhost:8080/zstack/v1/baremetal/chassis/from-file
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
baremetalChassisInfo	String	body (contained in the params structure)	The Base64-encoded configuration file of bare metal chassis.		3.1.1
longJobName	String	body (contained in the params structure)	Optional. The name of the long job.		3.1.1
longJobDescription	String	body (contained in the params structure)	Optional. The description of the long job.		3.1.1
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the long job.		3.1.1
systemTags	List	body	Optional. The system tags.		3.1.1
userTags	List	body	Optional. The user tags.		3.1.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "cec9662c5cc534779833c89d8104aa7d",
    "name": "APIBatchCreateBaremetalChassisMsg",
    "apiId": "85ef8b327b0a3c71a53827b30892f327",
    "jobName": "APIBatchCreateBaremetalChassisMsg",
    "jobData": "{\"createMessages\":[]}",
    "jobResult": "",
    "state": "Succeeded",
    "managementNodeUuid": "31c1228477b6310b9eb28a75e892b046"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.1.1
inventory	LongJobInventory	See inventory	3.1.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.1
description	String	The brief description of the error.	3.1.1
details	String	The details about the error.	3.1.1
elaboration	String	The reserved field. Default value: null.	3.1.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.1

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the API request.	3.1.1
name	String	The name of the API.	3.1.1
description	String	The detailed description of the long job.	3.1.1
apild	String	The ID of the long job.	3.1.1
jobName	String	The name of the long job.	3.1.1
jobData	String	The data about the long job.	3.1.1
jobResult	String	The result of the long job.	3.1.1
targetResourceUuid	String	The UUID of the long job.	3.1.1
managementNodeUuid	String	The UUID of the management node.	3.1.1
createDate	Timestamp	The time when the long job was created.	3.1.1
lastOpDate	Timestamp	The time when the long job was last operated.	3.1.1
state	LongJobState	See state	3.1.1

#state

Name	Type	Description	Starting Version
name	String	The name of the long job.	3.1.1
ordinal	int		3.1.1

SDK Sample

Java SDK

```
BatchCreateBaremetalChassisAction action = new BatchCreateBaremetalChassisAction();  
action.baremetalChassisInfo = "FILE CONTENT ENCODE BY BASE64";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
BatchCreateBaremetalChassisAction.Result res = action.call();
```

Python SDK

```
BatchCreateBaremetalChassisAction action = BatchCreateBaremetalChassisAction()  
action.baremetalChassisInfo = "FILE CONTENT ENCODE BY BASE64"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
BatchCreateBaremetalChassisAction.Result res = action.call()
```

5.6.1.6 CheckBaremetalChassisConfigFile

API Request

URLs

```
POST /v1/baremetal/chassis/from-file/check
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "params": {  
    "baremetalChassisInfo": "FILE CONTENT ENCODE BY BASE64"  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"baremetalChassisInfo":"FILE CONTENT ENCODE BY BASE64"}}' http://localhost:8080/zstack/v1/baremetal/chassis/from-file/check
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
baremetalChassisInfo	String	body (contained in the params structure)	The base64-encoded configuration file of bare metal chassis.		3.1.1
systemTags	List	body	Optional. The system tags.		3.1.1
userTags	List	body	Optional. The user tags.		3.1.1

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
CheckBaremetalChassisConfigFileAction action = new CheckBaremetalChassisConfigFileAction();
action.baremetalChassisInfo = "FILE CONTENT ENCODE BY BASE64";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckBaremetalChassisConfigFileAction.Result res = action.call();
```

Python SDK

```
CheckBaremetalChassisConfigFileAction action = CheckBaremetalChassisConfigFileAction()
```

```

action.baremetalChassisInfo = "FILE CONTENT ENCODE BY BASE64"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CheckBaremetalChassisConfigFileAction.Result res = action.call()

```

5.6.1.7 PowerOnBaremetalChassis

API Request

URLs

```
PUT zstack/v1/baremetal/chassis/{chassisUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "powerOnBaremetalChassis": {},
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"powerOnBaremetalChassis":{}}'
http://localhost:8080/zstack/v1/baremetal/
chassis/7405d7ceb46634528618789cde730795/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
chassisUuid	String	url	The UUID of the bare metal chassis.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
PowerOnBaremetalChassisAction action = new PowerOnBaremetalChassisAction();
action.chassisUuid = "7405d7ceb46634528618789cde730795";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PowerOnBaremetalChassisAction.Result res = action.call();
```

Python SDK

```
PowerOnBaremetalChassisAction action = PowerOnBaremetalChassisAction()
action.chassisUuid = "7405d7ceb46634528618789cde730795"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
PowerOnBaremetalChassisAction.Result res = action.call()
```

5.6.1.8 PowerOffBaremetalChassis

API Request

URLs

```
PUT zstack/v1/baremetal/chassis/{chassisUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "powerOffBaremetalChassis": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"powerOffBaremetalChassis":{}}'
http://localhost:8080/zstack/v1/baremetal/chassis/
ee53c6d1f4ad3ebb8971aa5933d6f9d6/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
chassisUuid	String	url	The UUID of the bare metal chassis.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
PowerOffBaremetalChassisAction action = new PowerOffBaremetalChassisAction();
action.chassisUuid = "ee53c6d1f4ad3ebb8971aa5933d6f9d6";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
PowerOffBaremetalChassisAction.Result res = action.call();
```

Python SDK

```
PowerOffBaremetalChassisAction action = PowerOffBaremetalChassisAction
()
action.chassisUuid = "ee53c6d1f4ad3ebb8971aa5933d6f9d6"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
PowerOffBaremetalChassisAction.Result res = action.call()
```

5.6.1.9 PowerResetBaremetalChassis

API Request

URLs

```
PUT zstack/v1/baremetal/chassis/{chassisUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "powerResetBaremetalChassis": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"powerResetBaremetalChassis":{}}'
http://localhost:8080/zstack/v1/baremetal/
chassis/8a947fc86c0c3e1d89462722af254ddf/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
chassisUuid	String	url	The UUID of the bare metal chassis.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
PowerResetBaremetalChassisAction action = new PowerResetBaremetalChassisAction();
action.chassisUuid = "8a947fc86c0c3e1d89462722af254ddf";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PowerResetBaremetalChassisAction.Result res = action.call();
```

Python SDK

```
PowerResetBaremetalChassisAction action = PowerResetBaremetalChassisAction()
action.chassisUuid = "8a947fc86c0c3e1d89462722af254ddf"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
PowerResetBaremetalChassisAction.Result res = action.call()
```

5.6.1.10 GetBaremetalChassisPowerStatus

API Request

URLs

```
GET zstack/v1/baremetal/chassis/{uuid}/powerstatus
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/
chassis/1fcf1caf5dae30f08ff995620a5bdfdd/powerstatus
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		2.6.0
systemTags	List	query	Optional. The system tags.		2.6.0
userTags	List	query	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "status": "ON"
}
```

Name	Type	Description	Starting Version
status	String	The power status of the bare metal chassis.	2.6.0

Name	Type	Description	Starting Version
success	boolean		2.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
error	ErrorCode	See error	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	2.6.0

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

SDK Sample

Java SDK

```
GetBaremetalChassisPowerStatusAction action = new GetBaremetalChassisPowerStatusAction();
action.uuid = "1fcf1caf5dae30f08ff995620a5bdffd";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetBaremetalChassisPowerStatusAction.Result res = action.call();
```

Python SDK

```
GetBaremetalChassisPowerStatusAction action = GetBaremetalChassisPowerStatusAction()
action.uuid = "1fcf1caf5dae30f08ff995620a5bdffd"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetBaremetalChassisPowerStatusAction.Result res = action.call()
```

5.6.1.11 ChangeBaremetalChassisState

API Request

URLs

```
PUT zstack/v1/baremetal/chassis/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeBaremetalChassisState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeBaremetalChassisState":{"stateEvent":"enable"}}'
http://localhost:8080/zstack/v1/baremetal/
chassis/1a600f11b61e3585bbd26d06166ff640/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		2.6.0
stateEvent	String	body (contained in the changeBare	The action taken to change the status of the	- enable - disable	2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		metalChassisState (structure)	bare metal chassis.		
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "506008545fa7391cb2586ae7d6180696",
    "ipmiAddress": "1.1.1.1",
    "ipmiPort": 623.0,
    "ipmiUsername": "root",
    "ipmiPassword": "password",
    "state": "Enabled",
    "status": "Available"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalChassisInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	2.6.0
name	String	The name of the bare metal chassis.	2.6.0
description	String	The detailed description of the bare metal chassis.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
ipmiAddress	String	The IPMI address of the bare metal chassis.	2.6.0
ipmiPort	Integer	The IPMI port of the bare metal chassis.	2.6.0
ipmiUsername	String	The IPMI username.	2.6.0
state	String		2.6.0

Name	Type	Description	Starting Version
status	String		2.6.0
createDate	Timestamp	The time when the bare metal chassis was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal chassis was last modified.	2.6.0

SDK Sample

Java SDK

```
ChangeBaremetalChassisStateAction action = new ChangeBaremetalChassisStateAction();
action.uuid = "1a600f11b61e3585bbd26d06166ff640";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeBaremetalChassisStateAction.Result res = action.call();
```

Python SDK

```
ChangeBaremetalChassisStateAction action = ChangeBaremetalChassisStateAction()
action.uuid = "1a600f11b61e3585bbd26d06166ff640"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeBaremetalChassisStateAction.Result res = action.call()
```

5.6.1.12 InspectBaremetalChassis

API Request

URLs

```
PUT zstack/v1/baremetal/chassis/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "inspectBaremetalChassis": {},
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"inspectBaremetalChassis":{}}'
http://localhost:8080/zstack/v1/baremetal/
chassis/514c293bdd6c3bc38f0dd5050f85642d/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "a4871bb97ab03c818419484564fadbfb",
    "ipmiAddress": "1.1.1.1",
    "ipmiPort": 623.0,
    "ipmiUsername": "root",
    "ipmiPassword": "password",
    "state": "Enabled",
    "status": "PxeBooting"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	2.6.0

Name	Type	Description	Starting Version
		more information, see error	
inventory	BaremetalChassisInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	2.6.0
name	String	The name of the bare metal chassis.	2.6.0

Name	Type	Description	Starting Version
description	String	The detailed description of the bare metal chassis.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
ipmiAddress	String	The IPMI address of the bare metal chassis.	2.6.0
ipmiPort	Integer	The IPMI port of the bare metal chassis.	2.6.0
ipmiUsername	String	The IPMI username.	2.6.0
state	String		2.6.0
status	String		2.6.0
createDate	Timestamp	The time when the bare metal chassis was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal chassis was last modified.	2.6.0

SDK Sample

Java SDK

```
InspectBaremetalChassisAction action = new InspectBaremetalChassisAction();
action.uuid = "514c293bdd6c3bc38f0dd5050f85642d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
InspectBaremetalChassisAction.Result res = action.call();
```

Python SDK

```
InspectBaremetalChassisAction action = InspectBaremetalChassisAction()
action.uuid = "514c293bdd6c3bc38f0dd5050f85642d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
InspectBaremetalChassisAction.Result res = action.call()
```

5.6.1.13 CreateBaremetalInstance

API Request

URLs

```
POST zstack/v1/baremetal/instances
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "BM-1",
    "description": "This is a baremetal instance.",
    "chassisUuid": "b79a4de35d2b346c96ac0093f2aade1",
    "imageUuid": "2f4cf15ce5c2345999550bd13195feaf",
    "templateUuid": "7fffea7efdae39968d51ef5686c09365",
    "username": "root",
    "password": "password",
    "nicCfgs": {
      "6c:b3:11:1b:0b:1e": "fa8f784c641a3193bb070b90b2ac9e66",
      "6c:b3:11:1b:0b:1f": "ee081a7ea13e312d8191926076fba22c"
    },
    "bondingCfgs": {
      "120342ecdb913830b88553ba982edb78": "23b04081ead93f4bb6be6443755e46a5"
    },
    "customConfigurations": {
      "keyboard": "en_US",
      "hostname": "localhost"
    },
    "strategy": "InstantStart"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"BM-1","description":"This is a baremetal instance.", "chassisUuid":"b79a4de35d2b346c96ac0093f2aade1", "imageUuid":"2f4cf15ce5c2345999550bd13195feaf", "templateUuid":"7fffea7efdae39968d51ef5686c09365", "username":"root", "password":"password", "nicCfgs":{"6c:b3:11:1b:0b:1e":"fa8f784c641a3193bb070b90b2ac9e66", "6c:b3:11:1b:0b:1f":"ee081a7ea13e312d8191926076fba22c"}, "bondingCfgs":{"120342ecdb913830b88553ba982edb78":"23b04081ead93f4bb6be6443755e46a5"}, "customConfigurations":{"keyboard":"en_US", "hostname":"localhost"}, "strategy":"InstantStart"}, "systemTags": [], "userTags": []}'
```

```
{
  "6c:b3:11:1b:0b:1e": "fa8f784c641a3193bb070b90b2ac9e66",
  "6c:b3:11:1b:0b:1f": "ee08",
  "120342ecdb913830b88553ba982edb78": "23b04081ead93f4bb6be6443755e46a5",
  "customCo": "120342ecdb913830b88553ba982edb78",
  "keyboard": "en_US",
  "hostname": "localhost",
  "strategy": "InstantStart"
}
```

http://localhost:8080/zstack/v1/baremetal/instances

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the bare metal instance.		2.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the bare metal instance.		2.6.0
chassisUuid	String	body (contained in the params structure)	The UUID of the bare metal chassis.		2.6.0
imageUuid	String	body (contained in the params structure)	The image UUID.		2.6.0
templateUuid	String	body (contained in the params structure)	Optional. The UUID of the preconfigured template.		3.3.0
username	String	body (contained in the params structure)	Optional. The system user of the bare metal instance.		3.3.0
password	String	body (contained in the params structure)	Optional. The password of the bare metal instance.		2.6.0
nicCfgs	Map	body (contained in	Optional. The network		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	configurations of the bare metal instance .		
bondingCfgs	Map	body (contained in the params structure)	Optional. The network bonding configurations of the bare metal instance .		3.3.0
customConfigurations	Map	body (contained in the params structure)	Optional. The custom configurations of the bare metal instance .		3.3.0
strategy	String	body (contained in the params structure)	Optional. The strategy used to create the bare metal instance.	- InstantStart - JustCreate	2.6.0
resourceUuid	String	body (contained in the params structure)	The resource UUID. If you specify this parameter, the value of this parameter is the UUID of the bare metal instance.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

**Note:**

- When you create a bare metal instance in ZStack Cloud, you can specify a static IP address for the bare metal instance by adding the **staticIp** option to **SystemTags**. The SystemTag is passed by using the **staticIp** parameter.
 - Format of the **staticIp** option: `staticIp::{%s}::{%s}`. Here, the first %s expression is an L3 network UUID while the second %s expression is the specified IP address.
 - Example: `staticIp::f00d593dff2e4bd58473388ac411ade2::192.168.0.10`.
- When you create a bare metal instance in ZStack Cloud, you can overwrite the installation of the bare metal instance by adding the **forceInstall** option to **SystemTags**. The SystemTag is passed by using the **forceInstall** parameter.
 - If the **forceInstall** does not exist, and if a partition is detected in the target disk during the system installation, the installation process will be paused to avoid overwriting the disk data.
 - If the **forceInstall** exists, and if a partition is detected in the target disk during the system installation, the partition will be automatically cleansed, and the installation will be overwritten.
- When you create a bare metal instance in ZStack Cloud, you can specify the switch information for by adding the **switchInfo** option to **SystemTags**. The SystemTag is passed by using the **switchInfo** parameter.
 - Format of the **switchInfo** option: `switchInfo::{%s}::{%s}`.
 - Example: `switchInfo::mac::switchInfo`.

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1dc13c821a713f7fbfa7dd754f100a73",
    "name": "BM-1",
    "description": "This is a baremetal instance.",
    "zoneUuid": "0f67724b4dc5397ea39751fda57c4ce6",
    "clusterUuid": "7921d51dba31317e8c09d50e44abd010",
    "chassisUuid": "5183b18300e43aa784a643b86a9772b7",
    "imageUuid": "a39b3870f3ae393cadcc3b4cfb454653",
    "platform": "Linux",
    "state": "Created",
    "status": "Unprovisioned",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "bmNics": [
      {
        "uuid": "006915f4766c32ee8b09bf951dd43264",
        "baremetalInstanceUuid": "1dc13c821a713f7fbfa7dd754f100a73",
```

```

    "l3NetworkUuid": "1fa935a68b4e312aa482df27b3b759a5",
    "mac": "6c:b3:11:1b:0b:1e",
    "ip": "192.168.0.10",
    "netmask": "255.255.255.0",
    "gateway": "192.168.0.1",
    "pxe": false
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalInstanceInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal instance.	2.6.0
name	String	The name of the bare metal instance.	2.6.0
description	String	The detailed description of the bare metal instance.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
chassisUuid	String	The UUID of the bare metal chassis.	2.6.0
imageUuid	String	The image UUID.	2.6.0
platform	String	The system platform.	2.6.0
state	String		2.6.0
status	String		2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0
bmNics	List	See bmNics	2.6.0

#bmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	2.6.0
baremetalInstanceUuid	String	The UUID of the bare metal instance.	2.6.0
I3NetworkUuid	String	The L3 network UUID.	2.6.0

Name	Type	Description	Starting Version
mac	String	The MAC address of the bare metal instance.	2.6.0
ip	String	The IP address of the bare metal instance.	2.6.0
netmask	String	The netmask of the bare metal instance.	2.6.0
gateway	String	The gateway of the bare metal instance.	2.6.0
metadata	String		2.6.0
pxe	Boolean	Indicates whether the bare metal instance is PXE boot by using its NIC.	2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0

SDK Sample

Java SDK

```

CreateBaremetalInstanceAction action = new CreateBaremetalInstanceAction();
action.name = "BM-1";
action.description = "This is a baremetal instance.";
action.chassisUuid = "b79a4de35d2b346c96ac0093f2aade1";
action.imageUuid = "2f4cf15ce5c2345999550bd13195feaf";
action.templateUuid = "7fffea7efdae39968d51ef5686c09365";
action.username = "root";
action.password = "password";
action.nicCfgs = [6c:b3:11:1b:0b:1e:fa8f784c641a3193bb070b90b2ac9e66,
6c:b3:11:1b:0b:1f:ee081a7ea13e312d8191926076fba22c];
action.bondingCfgs = [120342ecdb913830b88553ba982edb78:23b04081ead93f4bb6be6443755e46a5];
action.customConfigurations = [keyboard:en_US, hostname:localhost];
action.strategy = "InstantStart";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
CreateBaremetalInstanceAction.Result res = action.call();
```

Python SDK

```
CreateBaremetalInstanceAction action = CreateBaremetalInstanceAction()
action.name = "BM-1"
action.description = "This is a baremetal instance."
action.chassisUuid = "b79a4de35d2b346c96ac0093f2aade1"
action.imageUuid = "2f4cf15ce5c2345999550bd13195feaf"
action.templateUuid = "7fffea7efdae39968d51ef5686c09365"
action.username = "root"
action.password = "password"
action.nicCfgs = [6c:b3:11:1b:0b:1e:fa8f784c641a3193bb070b90b2ac9e66,
6c:b3:11:1b:0b:1f:ee081a7ea13e312d8191926076fba22c]
action.bondingCfgs = [120342ecdb913830b88553ba982edb78:23b04081ea
d93f4bb6be6443755e46a5]
action.customConfigurations = [keyboard:en_US, hostname:localhost]
action.strategy = "InstantStart"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateBaremetalInstanceAction.Result res = action.call()
```

5.6.1.14 QueryBaremetalInstance

API Request

URLs

```
GET zstack/v1/baremetal/instances
GET zstack/v1/baremetal/instances/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/instances?q=uuid =
93c50425e0ed3b2884027db70620db38
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/instances/
f52fb05bdd0837bdbc28dd08a529526c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryBaremetalInstance**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "9d3a2dd0d48c3220a40a66a33874f25a",
      "name": "BM-1",
      "description": "This is a baremetal instance.",
      "zoneUuid": "4d1bf4f2ab113292808be87ad9ff553b",
      "clusterUuid": "e24ee969ccc83aa287713ec2dca4e8e0",
      "chassisUuid": "da16af4bb6c43b8fba2b5ba918e0cdbb",
      "imageUuid": "70ff9f3ae5863fcfab60999afdf55219",
      "platform": "Linux",
      "state": "Running",
      "status": "Provisioned",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "bmNics": [
        {
          "uuid": "8fb718abb0bd3ce99215d446cd6dba1d",
          "baremetalInstanceUuid": "9d3a2dd0d48c3220a40a66a33874f25a",
          "l3NetworkUuid": "8b40c2c7a19e3c96b4bca63b56909898",
          "mac": "6c:b3:11:1b:0b:1e",
          "ip": "192.168.0.10",
          "netmask": "255.255.255.0",
          "gateway": "192.168.0.1",
          "pxe": false
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventories	List	See inventories	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	2.6.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal instance.	2.6.0
name	String	The name of the bare metal instance.	2.6.0
description	String	The detailed description of the bare metal instance.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
chassisUuid	String	The UUID of the bare metal chassis.	2.6.0
imageUuid	String	The image UUID.	2.6.0
platform	String	The system platform.	2.6.0
state	String		2.6.0

Name	Type	Description	Starting Version
status	String		2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0
bmNics	List	See bmNics	2.6.0

#bmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	2.6.0
baremetalInstanceUuid	String	The UUID of the bare metal instance.	2.6.0
l3NetworkUuid	String	The L3 network UUID.	2.6.0
baremetalBondingUuid	String	The network bonding UUID.	3.4.0
mac	String	The MAC address of the bare metal instance.	2.6.0
ip	String	The IP address of the bare metal instance.	2.6.0
netmask	String	The netmask of the bare metal instance.	2.6.0
gateway	String	The gateway of the bare metal instance.	2.6.0
metadata	String		2.6.0
pxe	Boolean	Indicates whether the bare metal instance was PXE boot by using its NIC.	2.6.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0

SDK Sample

Java SDK

```
QueryBaremetalInstanceAction action = new QueryBaremetalInstanceAction();
action.conditions = asList("uuid = 7fac9998fb703185a8b6655af59d0d21");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBaremetalInstanceAction.Result res = action.call();
```

Python SDK

```
QueryBaremetalInstanceAction action = QueryBaremetalInstanceAction()
action.conditions = ["uuid = a52323ca9c6132eeb0dc607570fb988f"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBaremetalInstanceAction.Result res = action.call()
```

5.6.1.15 StartBaremetalInstance

API Request

URLs

```
PUT zstack/v1/baremetal/instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "startBaremetalInstance": {
    "pxeBoot": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"startBaremetalInstance":{"pxeBoot":false}}'
http://localhost:8080/zstack/v1/baremetal/instances/
dc6931adfb8a38bf9919d46b1531e9e4/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal instance.		2.6.0
pxeBoot	Boolean	body (contained in the startBaremetalInstance structure)	Optional. Specifies whether to PXE boot the bare metal instance by using its NIC.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0be601277df73fa7bdb114b9ece8aec3",
    "name": "BM-1",
    "description": "This is a baremetal instance.",
    "zoneUuid": "9b4745853c913a549499e39c2f8db6c7",
    "clusterUuid": "21f709c6a9783fcb80803dece29a712a",
    "chassisUuid": "4c3e24bc9218382c83ff81e9205fdc47",
    "imageUuid": "e425f9323a4e3463b3a308c5ecca6653",
    "platform": "Linux",
    "state": "Running",
    "status": "Provisioned",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
  }
}
```

```

    "bmNics": [
      {
        "uuid": "de7f5a22aa483de88bb3ede1c7dd071f",
        "baremetalInstanceUuid": "0be601277df73fa7bdb114b9ece8aec3",
        "l3NetworkUuid": "41ebe67163003dec94da84c6c5224037",
        "mac": "6c:b3:11:1b:0b:1e",
        "ip": "192.168.0.10",
        "netmask": "255.255.255.0",
        "gateway": "192.168.0.1",
        "pxe": false
      }
    ]
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalInstanceInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current	2.6.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal instance.	2.6.0
name	String	The name of the bare metal instance.	2.6.0
description	String	The detailed description of the bare metal instance.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
chassisUuid	String	The UUID of the bare metal chassis.	2.6.0
imageUuid	String	The image UUID.	2.6.0
platform	String	The system platform.	2.6.0
state	String		2.6.0
status	String		2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0
bmNics	List	See bmNics	2.6.0

#bmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	2.6.0
baremetalInstanceUuid	String	The UUID of the bare metal instance.	2.6.0
l3NetworkUuid	String	The L3 network UUID.	2.6.0
baremetalBondingUuid	String	The network bonding UUID.	3.3.0
mac	String	The MAC address of the bare metal instance.	2.6.0
ip	String	The IP address of the bare metal instance.	2.6.0
netmask	String	The netmask of the bare metal instance.	2.6.0
gateway	String	The gateway of the bare metal instance.	2.6.0
metadata	String		2.6.0
pxe	Boolean	Indicates whether the bare metal instance was PXE boot by using its NIC.	2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0

SDK Sample

Java SDK

```
StartBaremetalInstanceAction action = new StartBaremetalInstanceAction();
action.uuid = "dc6931adfb8a38bf9919d46b1531e9e4";
action.pxeBoot = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
StartBaremetalInstanceAction.Result res = action.call();
```

Python SDK

```
StartBaremetalInstanceAction action = StartBaremetalInstanceAction()
action.uuid = "dc6931adfb8a38bf9919d46b1531e9e4"
action.pxeBoot = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
StartBaremetalInstanceAction.Result res = action.call()
```

5.6.1.16 StopBaremetalInstance

API Request

URLs

```
PUT zstack/v1/baremetal/instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "stopBaremetalInstance": {
    "type": "grace"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"stopBaremetalInstance":{"type":"grace"}}'
http://localhost:8080/zstack/v1/baremetal/instances/
d106a65de4e43667a794a0606a05f724/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal instance.		2.6.0
type	String	body (contained in the stopBaremetalInstance structure)	Optional. The type of stopping the bare metal instance.	• grace • cold	2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "4bf8e15fe39c3b0d8055b7074a522d2d",
    "name": "BM-1",
    "description": "This is a baremetal instance.",
    "zoneUuid": "541a4429a399336288dcbb83fe2573b4",
    "clusterUuid": "30efc0a59ac53afeb1d4d1fe2226a0a9",
    "chassisUuid": "7bd2492307033fedb5311dd23ddf2bbd",
    "imageUuid": "441390c7c83c3592ac29e6f1e38d392f",
    "platform": "Linux",
    "state": "Stopped",
    "status": "Provisioned",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "bmNics": [
      {
        "uuid": "f81e9b15830538b9b826e113146f1ed1",
        "baremetalInstanceUuid": "4bf8e15fe39c3b0d8055b7074a522d2d",
        "l3NetworkUuid": "811f43fa4f9f34b9a3a1756911ad9fc1",
        "mac": "6c:b3:11:1b:0b:1e",
        "ip": "192.168.0.10",
        "netmask": "255.255.255.0",
        "gateway": "192.168.0.1",
        "pxe": false
      }
    ]
  }
}
```


}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalInstanceInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal instance.	2.6.0

Name	Type	Description	Starting Version
name	String	The name of the bare metal instance.	2.6.0
description	String	The detailed description of the bare metal instance.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
chassisUuid	String	The UUID of the bare metal chassis.	2.6.0
imageUuid	String	The image UUID.	2.6.0
platform	String	The system platform.	2.6.0
state	String		2.6.0
status	String		2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0
bmNics	List	See bmNics	2.6.0

#bmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	2.6.0
baremetalInstanceUuid	String	The UUID of the bare metal instance.	2.6.0
l3NetworkUuid	String	The L3 network UUID.	2.6.0
baremetalBondingUuid	String	The network bonding UUID.	3.4.0

Name	Type	Description	Starting Version
mac	String	The MAC address of the bare metal instance.	2.6.0
ip	String	The IP address of the bare metal instance.	2.6.0
netmask	String	The netmask of the bare metal instance.	2.6.0
gateway	String	The gateway of the bare metal instance.	2.6.0
metadata	String		2.6.0
pxe	Boolean	Indicates whether the bare metal instance was PXE boot by using its NIC.	2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0

SDK Sample

Java SDK

```
StopBaremetalInstanceAction action = new StopBaremetalInstanceAction();
action.uuid = "d106a65de4e43667a794a0606a05f724";
action.type = "grace";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
StopBaremetalInstanceAction.Result res = action.call();
```

Python SDK

```
StopBaremetalInstanceAction action = StopBaremetalInstanceAction()
action.uuid = "d106a65de4e43667a794a0606a05f724"
action.type = "grace"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
StopBaremetalInstanceAction.Result res = action.call()
```

5.6.1.17 UpdateBaremetalInstance

API Request

URLs

```
PUT zstack/v1/baremetal/instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBaremetalInstance": {
    "name": "BM-1-RENAMED"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBaremetalInstance":{"name":"BM-1-RENAMED"}}'
http://localhost:8080/zstack/v1/baremetal/instances/
eb538a2a8f17342697593ac468b93d1a/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal instance.		2.6.0
name	String	body (contained in the updateBare	Optional. The name of the bare metal instance.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		metallInstance structure)			
description	String	body (contained in the updateBaremetallInstance structure)	Optional. The detailed description of the bare metal instance.		2.6.0
password	String	body (contained in the updateBaremetallInstance structure)	Optional. The password of the bare metal instance.		2.6.0
platform	String	body (contained in the updateBaremetallInstance structure)	Optional. The system platform.	Linux	2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "30073bc1b10e3b5eba5db9e54436b1dd",
    "name": "BM-1",
    "description": "This is a baremetal instance.",
    "zoneUuid": "99b8c0883a563feb849fe7c6b0b0b97d",
    "clusterUuid": "38324d028b28352fad5236f861ba7aeb",
    "chassisUuid": "692781dfb73d32d5907ef33199d97db6",
    "imageUuid": "a54bab6133d83045a8941368520eff77",
    "platform": "Linux",
    "state": "Stopped",
    "status": "Provisioned",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "bmNics": [
```

```

{
  "uuid": "5233971bebdd352c9d708617a23311a4",
  "baremetalInstanceUuid": "30073bc1b10e3b5eba5db9e54436b1dd",
  "l3NetworkUuid": "dce0c157a45d38209afbb615743435aa",
  "mac": "6c:b3:11:1b:0b:1e",
  "ip": "192.168.0.10",
  "netmask": "255.255.255.0",
  "gateway": "192.168.0.1",
  "pxe": false
}
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalInstanceInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.6.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal instance.	2.6.0
name	String	The name of the bare metal instance.	2.6.0
description	String	The detailed description of the bare metal instance.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
chassisUuid	String	The UUID of the bare metal chassis.	2.6.0
imageUuid	String	The image UUID.	2.6.0
platform	String	The system platform.	2.6.0
state	String		2.6.0
status	String		2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0
bmNics	List	See bmNics	2.6.0

#bmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	2.6.0
baremetalInstanceUuid	String	The UUID of the bare metal instance.	2.6.0
l3NetworkUuid	String	The L3 network UUID.	2.6.0
baremetalBondingUuid	String	The network bonding UUID.	3.3.0
mac	String	The MAC address of the bare metal instance.	2.6.0
ip	String	The IP address of the bare metal instance.	2.6.0
netmask	String	The netmask of the bare metal instance.	2.6.0
gateway	String	The gateway of the bare metal instance.	2.6.0
metadata	String		2.6.0
pxe	Boolean	Indicates whether the bare metal instance was PXE boot by using its NIC.	2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0

SDK Sample

Java SDK

```
UpdateBaremetalInstanceAction action = new UpdateBaremetalInstanceAction();
action.uuid = "eb538a2a8f17342697593ac468b93d1a";
action.name = "BM-1-RENAMED";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```



```
UpdateBaremetalInstanceAction.Result res = action.call();
```

Python SDK

```
UpdateBaremetalInstanceAction action = UpdateBaremetalInstanceAction()
action.uuid = "eb538a2a8f17342697593ac468b93d1a"
action.name = "BM-1-RENAMED"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateBaremetalInstanceAction.Result res = action.call()
```

5.6.1.18 RebootBaremetalInstance

API Request

URLs

```
PUT zstack/v1/baremetal/instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "rebootBaremetalInstance": {
    "pxeBoot": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"rebootBaremetalInstance":{"pxeBoot":false}}'
http://localhost:8080/zstack/v1/baremetal/instances/
c3be8e4c6f783f0c9aec9600b2c3768/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal instance.		2.6.0
pxeBoot	Boolean	body (contained in the rebootBare metalInstance structure)	Optional. Specifies whether to PXE boot the bare metal instance by using its NIC.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "227ea410fadd38668fb7dd5679d3f095",
    "name": "BM-1",
    "description": "This is a baremetal instance.",
    "zoneUuid": "946022bde3053bf29c7cbbf466241c7f",
    "clusterUuid": "a7b427907a883ae2acf0a6d408eae0e5",
    "chassisUuid": "0746a3cc213a345d89d31bfd82b00e12",
    "imageUuid": "828c0bc2e8f132bc924ed0a616860e66",
    "platform": "Linux",
    "state": "Rebooting",
    "status": "Provisioned",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "bmNics": [
      {
        "uuid": "fe99549e3f4f3683b4fb37f623de9115",
        "baremetalInstanceUuid": "227ea410fadd38668fb7dd5679d3f095",
        "l3NetworkUuid": "99f6eb7273e936f3ad638ba00b474a4b",
        "mac": "6c:b3:11:1b:0b:1e",
        "ip": "192.168.0.10",
        "netmask": "255.255.255.0",
        "gateway": "192.168.0.1",
        "pxe": false
      }
    ]
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalInstanceInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal instance.	2.6.0

Name	Type	Description	Starting Version
name	String	The name of the bare metal instance.	2.6.0
description	String	The detailed description of the bare metal instance.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
chassisUuid	String	The UUID of the bare metal chassis.	2.6.0
imageUuid	String	The image UUID.	2.6.0
platform	String	The system platform.	2.6.0
state	String		2.6.0
status	String		2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0
bmNics	List	See bmNics	2.6.0

#bmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	2.6.0
baremetalInstanceUuid	String	The UUID of the bare metal instance.	2.6.0
l3NetworkUuid	String	The L3 network UUID.	2.6.0
baremetalBondingUuid	String	The network bonding UUID.	3.4.0

Name	Type	Description	Starting Version
mac	String	The MAC address of the bare metal instance.	2.6.0
ip	String	The IP address of the bare metal instance.	2.6.0
netmask	String	The netmask of the bare metal instance.	2.6.0
gateway	String	The gateway of the bare metal instance.	2.6.0
metadata	String		2.6.0
pxe	Boolean	Indicates whether the bare metal instance is PXE boot by using its NIC.	2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0

SDK Sample

Java SDK

```
RebootBaremetalInstanceAction action = new RebootBaremetalInstanceAction();
action.uuid = "c3be8e4c6f783f0c9aec9600b2c3768";
action.pxeBoot = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RebootBaremetalInstanceAction.Result res = action.call();
```

Python SDK

```
RebootBaremetalInstanceAction action = RebootBaremetalInstanceAction()
action.uuid = "c3be8e4c6f783f0c9aec9600b2c3768"
action.pxeBoot = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RebootBaremetalInstanceAction.Result res = action.call()
```

5.6.1.19 DestroyBaremetalInstance

API Request

URLs

```
DELETE zstack/v1/baremetal/instances/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/baremetal/
instances/8f34148a0cce3acf883c6f6b59eb8c0d
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal instance.		2.6.0
deleteMode	String	body	Optional. The mode under which the bare metal instance is deleted.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
```

```

    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```

DestroyBaremetalInstanceAction action = new DestroyBaremetalInst
anceAction();
action.uuid = "8f34148a0cce3acf883c6f6b59eb8c0d";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DestroyBaremetalInstanceAction.Result res = action.call();

```

Python SDK

```

DestroyBaremetalInstanceAction action = DestroyBaremetalInstanceAction
()
action.uuid = "8f34148a0cce3acf883c6f6b59eb8c0d"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DestroyBaremetalInstanceAction.Result res = action.call()

```

5.6.1.20 ExpungeBaremetalInstance

API Request

URLs

```
PUT zstack/v1/baremetal/instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "expungeBaremetalInstance": {},
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"expungeBaremetalInstance":{}}'
http://localhost:8080/zstack/v1/baremetal/
instances/1016135ece1d3b189112cea52ae84d8d/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal instance.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ExpungeBaremetalInstanceAction action = new ExpungeBaremetalInstanceAction();
action.uuid = "1016135ece1d3b189112cea52ae84d8d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ExpungeBaremetalInstanceAction.Result res = action.call();
```

Python SDK

```
ExpungeBaremetalInstanceAction action = ExpungeBaremetalInstanceAction()
action.uuid = "1016135ece1d3b189112cea52ae84d8d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
ExpungeBaremetalInstanceAction.Result res = action.call()
```

5.6.1.21 RecoverBaremetalInstance

API Request

URLs

```
PUT zstack/v1/baremetal/instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "recoverBaremetalInstance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"recoverBaremetalInstance":{}}'
http://localhost:8080/zstack/v1/baremetal/
instances/0a71736890e437928f90415a276ca245/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the bare metal instance.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "38471d80059739568ee29b580ee00314",
    "name": "BM-1",
    "description": "This is a baremetal instance.",
    "zoneUuid": "cd3f0df2f33d3d47af58fa92d45e0ed3",
    "clusterUuid": "fc7f9da7d8a53a939a4163619a2e6264",
    "chassisUuid": "36d14ed4da51339eae615f7716724d25",
    "imageUuid": "4eec69d4ae423807bf38164c6d592d86",
    "platform": "Linux",
    "state": "Stopped",
    "status": "Provisioned",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "bmNics": [
      {
        "uuid": "9e01966b83283f9b967be10fe13ce8bf",
        "baremetalInstanceUuid": "38471d80059739568ee29b580ee00314",
        "l3NetworkUuid": "294c0bcaa1e43fae9abaade23d72e24",
        "mac": "6c:b3:11:1b:0b:1e",
        "ip": "192.168.0.10",
        "netmask": "255.255.255.0",
        "gateway": "192.168.0.1",
        "pxe": false
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalInstanceInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal instance.	2.6.0
name	String	The name of the bare metal instance.	2.6.0
description	String	The detailed description of the bare metal instance.	2.6.0
zoneUuid	String	The zone UUID.	2.6.0
clusterUuid	String	The cluster UUID.	2.6.0
pxeServerUuid	String		3.1.1
chassisUuid	String	The UUID of the bare metal chassis.	2.6.0
imageUuid	String	The image UUID.	2.6.0
platform	String	The system platform.	2.6.0
state	String		2.6.0
status	String		2.6.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0
bmNics	List	See bmNics	2.6.0

#bmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	2.6.0
baremetalInstanceUuid	String	The UUID of the bare metal instance.	2.6.0
l3NetworkUuid	String	The L3 network UUID.	2.6.0
baremetalBondingUuid	String	The network bonding UUID.	3.4.0
mac	String	The MAC address of the bare metal instance.	2.6.0
ip	String	The IP address of the bare metal instance.	2.6.0
netmask	String	The netmask of the bare metal instance.	2.6.0
gateway	String	The gateway of the bare metal instance.	2.6.0
metadata	String		2.6.0
pxe	Boolean	Indicates whether the bare metal instance was PXE boot by using its NIC.	2.6.0
createDate	Timestamp	The time when the bare metal instance was created.	2.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	2.6.0

SDK Sample

Java SDK

```
RecoverBaremetalInstanceAction action = new RecoverBaremetalInstanceAction();
action.uuid = "0a71736890e437928f90415a276ca245";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RecoverBaremetalInstanceAction.Result res = action.call();
```

Python SDK

```
RecoverBaremetalInstanceAction action = RecoverBaremetalInstanceAction()
action.uuid = "0a71736890e437928f90415a276ca245"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RecoverBaremetalInstanceAction.Result res = action.call()
```

5.6.1.22 CreateBaremetalBonding

API Request

URLs

```
POST zstack/v1/baremetal/network/bondings
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "chassisUuid": "8a3fddc82d1536ad8f695d25d84404f2",
    "name": "bond0",
    "mode": 1.0,
    "slaves": "d4:ae:52:6e:d1:0d,d4:ae:52:6e:d1:04",
    "opts": "miimon=100",
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"chassisUuid":"8a3fddc82d1536ad8f695d25d84404f2", "name":"bond0", "mode":1.0, "slaves":
"d4:ae:52:6e:d1:0d, d4:ae:52:6e:d1:04", "opts": "miimon=100"}}'
http://localhost:8080/zstack/v1/baremetal/network/bondings
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
chassisUuid	String	body (contained in the params structure)	The UUID of the bare metal chassis.		3.3.0
name	String	body (contained in the params structure)	The name of the bonded NIC.		3.3.0
mode	Integer	body (contained in the params structure)	The network bonding mode.		3.3.0
slaves	String	body (contained in the params structure)	The bonded slave MAC addresses of the NIC.		3.3.0
opts	String	body (contained in the params structure)	Optional. The network bonding options.		3.3.0
resourceUuid	String	body (contained in the params structure)	Optional. The network bonding UUID.		3.3.0
systemTags	List	body	Optional. The system tags.		3.3.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		3.3.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a904ce62244c415795da26028fc281b4",
    "chassisUuid": "c034b1866a754e3c88ca7d67770dc8eb",
    "name": "bond0",
    "mode": 1.0,
    "slaves": "d4:ae:52:6e:d1:0d,d4:ae:52:6e:d1:04",
    "opts": "miimon=100",
    "createDate": "Jan 8, 2019 3:06:09 PM",
    "lastOpDate": "Jan 8, 2019 3:06:09 PM"
  }
}
```

Name	Type	Type	Type
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.3.0
inventory	BaremetalBondingInventory	See inventory	3.3.0

#error

Name	Name	Description	Name
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.3.0
description	String	The brief description of the error.	3.3.0
details	String	The details about the error.	3.3.0

Name	Name	Description	Name
elaboration	String	The reserved field. Default value: null.	3.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.3.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The network bonding UUID.	3.3.0
chassisUuid	String	The UUID of the bare metal chassis.	3.3.0
name	String	The name of the bonded NIC.	3.3.0
mode	Integer	The network bonding mode.	3.3.0
slaves	String	The bonded slave MAC addresses. Each MAC address is separated by a comma (,).	3.3.0
opts	String	The network bonding options.	3.3.0
createDate	Timestamp	The time when the network bonding was created.	3.3.0
lastOpDate	Timestamp	The time when the network bonding was last modified.	3.3.0

SDK Sample

Java SDK

```
CreateBaremetalBondingAction action = new CreateBaremetalBondingAction
();
action.chassisUuid = "8a3fddc82d1536ad8f695d25d84404f2";
action.name = "bond0";
action.mode = 1.0;
action.slaves = "d4:ae:52:6e:d1:0d,d4:ae:52:6e:d1:0e";
action.opts = "miimon=100";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateBaremetalBondingAction.Result res = action.call();
```

Python SDK

```
CreateBaremetalBondingAction action = new CreateBaremetalBondingAction
();
action.chassisUuid = "8a3fddc82d1536ad8f695d25d84404f2";
action.name = "bond0";
action.mode = 1.0;
action.slaves = "d4:ae:52:6e:d1:0d,d4:ae:52:6e:d1:0e";
action.opts = "miimon=100";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateBaremetalBondingAction.Result res = action.call();
```

5.6.1.23 QueryBaremetalBonding

API Request

URLs

```
GET zstack/v1/baremetal/network/bondings
GET zstack/v1/baremetal/network/bondings/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/network/bondings?
q=uuid=10d30b226f093a4c9ccd911575406e7b
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/network/bondings/
e0ea2452b6be30a6a7fbfc01dd5e70f5
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryBaremetalBonding**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "6880ed37f7ce4381ae611fd6965696fd",
      "chassisUuid": "59c92fcd611241eb9f55f4b721a62883",
      "name": "bond0",
      "mode": 1.0,
      "slaves": "d4:ae:52:6e:d1:0d,d4:ae:52:6e:d1:04",
      "opts": "miimon=100",
      "createDate": "Jan 8, 2019 3:05:44 PM",
      "lastOpDate": "Jan 8, 2019 3:05:44 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.4.0
inventories	List	See inventories	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The network bonding UUID.	3.4.0
chassisUuid	String	The UUID of the bare metal chassis.	3.4.0
name	String	The name of the bonded NIC.	3.4.0
mode	Integer	The network bonding mode.	3.4.0
slaves	String	The bonded slave MAC addresses. Each MAC address is separated by a comma (,).	3.4.0
opts	String	The network bonding options.	3.4.0
createDate	Timestamp	The time when the network bonding was created.	3.4.0
lastOpDate	Timestamp	The time when the network bonding was last modified.	3.4.0

SDK Sample

Java SDK

```
QueryBaremetalBondingAction action = new QueryBaremetalBondingAction();
action.conditions = asList("uuid=eb879ea0b5b93f12aefb1a8bb21cf135");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBaremetalBondingAction.Result res = action.call();
```

Python SDK

```
QueryBaremetalBondingAction action = QueryBaremetalBondingAction()
action.conditions = ["uuid=3c90a0f5fb763620ab38cc6184732ea3"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBaremetalBondingAction.Result res = action.call()
```

5.6.1.24 AddPreconfigurationTemplate

API Request

URLs

```
POST zstack/v1/baremetal/preconfigurations
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "centos-7.2-minimal",
    "description": "centos-7.2-minimal kickstart file",
    "distribution": "centos7.2-x86_64",
    "type": "kickstart",
    "content": "..."
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":{"name":"centos-7.2-minimal","description":"centos-7.2-minimal kickstart file","distribution":"centos7.2-x86_64","type":"kickstart","content":"..."}}' http://localhost:8080/zstack/v1/baremetal/preconfigurations
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the preconfigured template.		3.4.0
description	String	body (contained in the params structure)	Optional. The detailed description of the template.		3.4.0
distribution	String	body (contained in the params structure)	The distribution of the operating system.		3.4.0
type	String	body (contained in the params structure)	The type of the template.	• kickstart • preseed • autoyast	3.4.0
content	String	body (contained in the params structure)	The content of the template.		3.4.0
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the template.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0bfb87d3a9c842bbbf509a4b7eb6e3b2",
    "name": "centos_7_x86_64_mini_v1.cfg",
    "description": "centos-7-minimal kickstart file",
    "distribution": "centos-7-x86_64",
    "type": "kickstart",
    "content": "...",
    "md5sum": "0447e03f5a6747c0984842b5ee117a21",
    "isPredefined": false,
    "state": "Enabled",
    "createDate": "Jan 11, 2019 10:38:59 AM",
    "lastOpDate": "Jan 11, 2019 10:38:59 AM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.4.0
inventory	PreconfigurationTemplateInventory	See inventory	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the preconfigured template.	3.4.0
name	String	The name of the template.	3.4.0
description	String	The detailed description of the preconfigured template.	3.4.0
distribution	String	The distribution of the operating system.	3.4.0
type	String	The type of the template.	3.4.0
content	String	The content of the template.	3.4.0
md5sum	String	The MD5 value of the template.	3.4.0
isPredefined	Boolean	Indicates whether the system of the template was predefined.	3.4.0
state	String	The state of the template.	3.4.0
createDate	Timestamp	The time when the template was created.	3.4.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the template was last modified.	3.4.0

SDK Sample

Java SDK

```
AddPreconfigurationTemplateAction action = new AddPreconfigurationTemplateAction();
action.name = "centos-7.2-minimal";
action.description = "centos-7.2-minimal kickstart file";
action.distribution = "centos7.2-x86_64";
action.type = "kickstart";
action.content = "...";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddPreconfigurationTemplateAction.Result res = action.call();
```

Python SDK

```
AddPreconfigurationTemplateAction action = AddPreconfigurationTemplateAction()
action.name = "centos-7.2-minimal"
action.description = "centos-7.2-minimal kickstart file"
action.distribution = "centos7.2-x86_64"
action.type = "kickstart"
action.content = "..."
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddPreconfigurationTemplateAction.Result res = action.call()
```

5.6.1.25 ChangePreconfigurationTemplateState

API Request

URLs

```
PUT zstack/v1/baremetal/preconfigurations/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changePreconfigurationTemplateState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changePreconfigurationTemplateState":
{"stateEvent":"disable"}}' http://localhost:8080/zstack/v1/baremetal/
preconfigurations/48e32bae102b30ccb921f582a33cee14/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the template.		3.4.0
stateEvent	String	body(contained in the changePreconfigurationTemplateState structure)	The action taken to change the state of the preconfigured template.	- enable - disable	3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "1bc7b68589b44d7eb906605ceaed3e23",
    "name": "centos_7_x86_64_mini_v1.cfg",
    "description": "centos-7-minimal kickstart file",
    "distribution": "centos-7-x86_64",
    "type": "kickstart",
    "content": "...",
    "md5sum": "b4ddb3884d63478d819b5507df6b21a8",
    "isPredefined": false,
    "state": "Enabled",
```

```

    "createDate": "Feb 28, 2019 4:55:38 PM",
    "lastOpDate": "Feb 28, 2019 4:55:38 PM"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.4.0
inventory	PreconfigurationTemplateInventory	See inventory	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the preconfigured template.	3.4.0
name	String	The name of the template.	3.4.0
description	String	The detailed description of the preconfigured template.	3.4.0
distribution	String	The distribution of the operating system.	3.4.0
type	String	The type of the template.	3.4.0
content	String	The content of the template.	3.4.0
md5sum	String	The MD5 value of the template.	3.4.0
isPredefined	Boolean	Indicates whether the system of the template was predefined.	3.4.0
state	String	The state of the template.	3.4.0
createDate	Timestamp	The time when the template was created.	3.4.0
lastOpDate	Timestamp	The time when the template was last modified.	3.4.0

SDK Sample

Java SDK

```
ChangePreconfigurationTemplateStateAction action = new ChangePreconfigurationTemplateStateAction();
action.uuid = "48e32bae102b30ccb921f582a33cee14";
action.stateEvent = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ChangePreconfigurationTemplateStateAction.Result res = action.call();
```

Python SDK

```
ChangePreconfigurationTemplateStateAction action = ChangePreconfigurationTemplateStateAction()
action.uuid = "48e32bae102b30ccb921f582a33cee14"
action.stateEvent = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangePreconfigurationTemplateStateAction.Result res = action.call()
```

5.6.1.26 DeletePreconfigurationTemplate

API Request

URLs

```
DELETE zstack/v1/baremetal/preconfigurations/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/baremetal/
preconfigurations/5a236fbddd5e46a6ab6e634a5c8b8e68
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the preconfigured template.		3.4.0
deleteMode	String	body	Optional. The mode under which the template is deleted.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeletePreconfigurationTemplateAction action = new DeletePreconfigurati
onTemplateAction();
action.uuid = "d5624ed789d14c10a35bc68f0a8c803d";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeletePreconfigurationTemplateAction.Result res = action.call();
```

Python SDK

```
DeletePreconfigurationTemplateAction action = DeletePreconfigurati
onTemplateAction()
action.uuid = "45495daa9c6542fd82a4ed00e2ce6023"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeletePreconfigurationTemplateAction.Result res = action.call()
```

5.6.1.27 UpdatePreconfigurationTemplate

API Request

URLs

```
PUT zstack/v1/baremetal/preconfigurations/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updatePreconfigurationTemplate": {
    "name": "centos-7.2-minimal",
    "description": "centos-7.2-minimal kickstart file",
    "distribution": "centos7.2-x86_64",
    "type": "kickstart",
    "content": "..."
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updatePreconfigurationTemplate":
{"name":"centos-7.2-minimal","description":"centos-7.2-
minimal kickstart file","distribution":"centos7.2-
x86_64","type":"kickstart","content":"..."}' http://
localhost:8080/zstack/v1/baremetal/preconfigurations/
a4f774d88df141749f077f7df185a0e3/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the preconfigured template.		3.4.0
name	String	body (contained in the updatePreconfigurationTemplate structure)	Optional. The name of the template.		3.4.0
description	String	body (contained in the updatePreconfigurationTemplate structure)	Optional. The detailed description of the template.		3.4.0
distribution	String	body (contained in the updatePre	Optional. The distribution of the operating system.		3.4.0

Name	Type	Location	Description	Optional Value	Starting Version
		onfigurationTemplate structure)			
type	String	body (contained in the updatePrecisionConfigurationTemplate structure)	Optional. The type of the template.	• kickstart • preseed • autoyast	3.4.0
content	String	body (contained in the updatePrecisionConfigurationTemplate structure)	Optional. The content of the template.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "fee95538b8a64831a9f29b972bcd165",
    "name": "centos_7_x86_64_mini_v1.cfg",
    "description": "centos-7-minimal kickstart file",
    "distribution": "centos-7-x86_64",
    "type": "kickstart",
    "content": "...",
    "md5sum": "6c5fbedaf16f4682840a3a2c9b712b21",
    "isPredefined": false,
    "state": "Enabled",
    "createDate": "Jan 11, 2019 10:38:58 AM",
    "lastOpDate": "Jan 11, 2019 10:38:58 AM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.4.0
inventory	PreconfigurationTemplateInventory	See	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the preconfigured template.	3.4.0
name	String	The name of the template.	3.4.0
description	String	The detailed description of the preconfigured template.	3.4.0
distribution	String	The distribution of the operating system.	3.4.0
type	String	The type of the template.	3.4.0
content	String	The content of the template.	3.4.0
md5sum	String	The MD5 value of the template.	3.4.0
isPredefined	Boolean	Indicates whether the system of the template was predefined.	3.4.0
state	String	The state of the template.	3.4.0
createDate	Timestamp	The time when the template was created.	3.4.0
lastOpDate	Timestamp	The time when the template was last modified.	3.4.0

SDK Sample

Java SDK

```
UpdatePreconfigurationTemplateAction action = new UpdatePreconfigurationTemplateAction();
action.uuid = "2dd907badf9e4ff994986173aee0402f";
action.name = "centos-7.2-minimal";
action.description = "centos-7.2-minimal kickstart file";
action.distribution = "centos7.2-x86_64";
action.type = "kickstart";
action.content = "...";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
UpdatePreconfigurationTemplateAction.Result res = action.call();
```

Python SDK

```
UpdatePreconfigurationTemplateAction action = UpdatePreconfigurati
onTemplateAction()
action.uuid = "9abdf90afc1b4ddcbf1eb1357c6b6229"
action.name = "centos-7.2-minimal"
action.description = "centos-7.2-minimal kickstart file"
action.distribution = "centos7.2-x86_64"
action.type = "kickstart"
action.content = "..."
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdatePreconfigurationTemplateAction.Result res = action.call()
```

5.6.1.28 QueryPreconfigurationTemplate

API Request

URLs

```
GET zstack/v1/baremetal/preconfigurations
GET zstack/v1/baremetal/preconfigurations/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/preconfigurations?
q=uuid=6b34fcf11d6732ba851203bc602b46b7
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/preconfigurations/
ed428c815ff43f1ebc97483767b1a6e4
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPreconfigurationTemplate**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "d55e08748c1d424dbcb7b311dbff56c6",
      "name": "centos_7_x86_64_mini_v1.cfg",
```

```

    "description": "centos-7-minimal kickstart file",
    "distribution": "centos-7-x86_64",
    "type": "kickstart",
    "content": "...",
    "md5sum": "7a5bf28bb4164419923a98a63a34680f",
    "isPredefined": false,
    "state": "Enabled",
    "createDate": "Feb 28, 2019 4:55:50 PM",
    "lastOpDate": "Feb 28, 2019 4:55:50 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.4.0
inventories	List	See inventories	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.4.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the preconfigured template.	3.4.0
name	String	The name of the template.	3.4.0
description	String	The detailed description of the preconfigured template.	3.4.0
distribution	String	The distribution of the operating system.	3.4.0
type	String	The type of the template.	3.4.0
content	String	The content of the template.	3.4.0
md5sum	String	The MD5 value of the template.	3.4.0
isPredefined	Boolean	Indicates whether the system of the template was predefined.	3.4.0
state	String	The state of the template.	3.4.0
createDate	Timestamp	The time when the template was created.	3.4.0
lastOpDate	Timestamp	The time when the template was last modified.	3.4.0

SDK Sample

Java SDK

```
QueryPreconfigurationTemplateAction action = new QueryPreconfigurationTemplateAction();
action.conditions = asList("uuid=c3cd8741c2fb3ba88f0493ec77b8fad6");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryPreconfigurationTemplateAction.Result res = action.call();
```

Python SDK

```
QueryPreconfigurationTemplateAction action = QueryPreconfigurationTemplateAction()
action.conditions = ["uuid=deb4635e9984326b818d0433dfd78576"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryPreconfigurationTemplateAction.Result res = action.call()
```

5.6.2 Installation Service Operations

5.6.2.1 CreateBaremetalPxeServer

API Request

URLs

```
POST zstack/v1/baremetal/pxeservers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "zoneUuid": "4d813a1e8053335d931094e4f41c0cad",
    "name": "test",
    "hostname": "127.0.0.1",
    "sshUsername": "root",
    "sshPassword": "password",
    "sshPort": 22.0,
    "storagePath": "/zstack_bm_cache",
    "dhcpInterface": "eth0",
    "dhcpRangeBegin": "10.0.0.1",
    "dhcpRangeEnd": "10.0.0.255",
    "dhcpRangeNetmask": "255.255.255.0"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"zoneUuid":"4d813a1e8053335d931094e4f41c0cad","name":"test","hostname":"127.0.0.1",
"zstack_bm_cache","dhcpInterface":"eth0","dhcpRangeBegin":"10.0.0.1","dhcpRangeEnd":
http://localhost:8080/zstack/v1/baremetal/pxeservers
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the deployment server.		3.1.1
description	String	body (contained in the params structure)	Optional. The detailed description of the deployment server.		3.1.1
dhcpInterface	String	body (contained in the params structure)	The DHCP NIC of the deployment server.		3.1.1
dhcpRangeBegin	String	body (contained in the params structure)	Optional. The starting IP address that DHCP assigns to a bare metal instance.		3.1.1
dhcpRangeEnd	String	body (contained in the params structure)	Optional. The ending IP address that DHCP assigns to a bare		3.1.1

Name	Type	Location	Description	Optional Value	Starting Version
			metal instance .		
dhcpRangeNetmask	String	body (contained in the params structure)	Optional. The netmask of the IP range from which the DHCP server assigns an IP address to a bare metal instance.		3.1.1
zoneUuid	String	body (contained in the params structure)	The zone UUID.		3.1.1
hostname	String	body (contained in the params structure)			3.1.1
sshUsername	String	body (contained in the params structure)			3.1.1
sshPassword	String	body (contained in the params structure)			3.1.1
sshPort	Integer	body (contained in the params structure)	Optional.		3.1.1
storagePath	String	body (contained in the params structure)			3.1.1
resourceUuid	String	body (contained in	Optional.		3.1.1

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
systemTags	List	body	Optional. The system tags.		3.1.1
userTags	List	body	Optional. The user tags.		3.1.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "e958961c7785304691d49ec5ac7df64d",
    "name": "test",
    "hostname": "127.0.0.1",
    "sshUsername": "root",
    "sshPassword": "password",
    "sshPort": 22.0,
    "storagePath": "/zstack_bm_cache",
    "dhcpInterface": "eth0",
    "dhcpRangeBegin": "10.0.0.1",
    "dhcpRangeEnd": "10.0.0.255",
    "dhcpRangeNetmask": "255.255.255.0",
    "state": "Enabled",
    "status": "Connecting"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.1.1
inventory	BaremetalPxeServerInventory	See inventory	3.1.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	3.1.1

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.1.1
details	String	The details about the error.	3.1.1
elaboration	String	The reserved field. Default value: null.	3.1.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the deployment server.	3.1.1
zoneUuid	String	The zone UUID.	3.1.1
name	String	The name of the deployment server.	3.1.1
description	String	The detailed description of the deployment server.	3.1.1
hostname	String	The IP address of the deployment server.	3.1.1
sshUsername	String	The SSH username of the deployment server.	3.1.1
sshPassword	String	The SSH password of the deployment server.	3.1.1

Name	Type	Description	Starting Version
sshPort	Integer	The SSH port of the deployment server.	3.1.1
storagePath	String	The storage path of the deployment server.	3.1.1
dhcpInterface	String	The DHCP NIC of the deployment server.	3.1.1
dhcpInterfaceAddress	String	The IP address of the DHCP NIC of the deployment server.	3.1.1
dhcpRangeBegin	String	The starting IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeEnd	String	The ending IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeNetmask	String	The netmask of the IP range from which DHCP assigns an IP address to a bare metal instance.	3.1.1
state	String	The operating status of the deployment server.	3.1.1
status	String	The connection status of the deployment server.	3.1.1
createDate	Timestamp	The time when the deployment server was created.	3.1.1
lastOpDate	Timestamp	The time when the deployment server was last modified.	3.1.1
totalCapacity	Long	The total storage capacity in the specified storage path.	3.1.1

Name	Type	Description	Starting Version
availableCapacity	Long	The available storage space in the specified storage path.	3.1.1
attachedClusterUuids	List	The UUIDs of the clusters to which the deployment server is attached.	3.1.1

SDK Sample

Java SDK

```
CreateBaremetalPxeServerAction action = new CreateBaremetalPxeServerAction();
action.zoneUuid = "4d813a1e8053335d931094e4f41c0cad";
action.name = "test";
action.hostname = "127.0.0.1";
action.sshUsername = "root";
action.sshPassword = "password";
action.sshPort = 22.0;
action.storagePath = "/zstack_bm_cache";
action.dhcpInterface = "eth0";
action.dhcpRangeBegin = "10.0.0.1";
action.dhcpRangeEnd = "10.0.0.255";
action.dhcpRangeNetmask = "255.255.255.0";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateBaremetalPxeServerAction.Result res = action.call();
```

Python SDK

```
CreateBaremetalPxeServerAction action = CreateBaremetalPxeServerAction()
action.zoneUuid = "4d813a1e8053335d931094e4f41c0cad"
action.name = "test"
action.hostname = "127.0.0.1"
action.sshUsername = "root"
action.sshPassword = "password"
action.sshPort = 22.0
action.storagePath = "/zstack_bm_cache"
action.dhcpInterface = "eth0"
action.dhcpRangeBegin = "10.0.0.1"
action.dhcpRangeEnd = "10.0.0.255"
action.dhcpRangeNetmask = "255.255.255.0"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateBaremetalPxeServerAction.Result res = action.call()
```

5.6.2.2 DeleteBaremetalPxeServer

API Request

URLs

```
DELETE zstack/v1/baremetal/pxeservers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/baremetal/pxeservers/
da517231390c368b91440d0bda783ba1
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the deployment server.		2.6.0
deleteMode	String	body	Optional. The mode under which the bare metal chassis is deleted.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
```

```

    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```

DeleteBaremetalPxeServerAction action = new DeleteBaremetalPxeServerAction();
action.uuid = "da517231390c368b91440d0bda783ba1";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteBaremetalPxeServerAction.Result res = action.call();

```

Python SDK

```

DeleteBaremetalPxeServerAction action = DeleteBaremetalPxeServerAction()
action.uuid = "da517231390c368b91440d0bda783ba1"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteBaremetalPxeServerAction.Result res = action.call()

```

5.6.2.3 QueryBaremetalPxeServer

API Request

URLs

```

GET zstack/v1/baremetal/pxeservers
GET zstack/v1/baremetal/pxeservers/{uuid}

```

Headers

```

Authorization: OAuth the-session-uuid

```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/pxeservers?q=uuid=b56be5d49df637308e7db1ae725a311e

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal/pxeservers/fdefdaf042463cfb8939563c5f910c8f

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryBaremetalPxeServer`, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "90afdd2b218b376592a25421e396597e",
      "name": "test",
      "hostname": "127.0.0.1",
      "sshUsername": "root",
      "sshPassword": "password",
      "sshPort": 22.0,
      "storagePath": "/zstack_bm_cache",
      "dhcpInterface": "eth0",
      "dhcpRangeBegin": "10.0.0.1",
      "dhcpRangeEnd": "10.0.0.255",
      "dhcpRangeNetmask": "255.255.255.0",
      "state": "Enabled",
      "status": "Connected"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventories	List	See inventories	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0

Name	Type	Description	Starting Version
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the deployment server.	3.1.1
zoneUuid	String	The zone UUID.	3.1.1
name	String	The name of the deployment server.	3.1.1
description	String	The detailed description of the deployment server.	3.1.1
hostname	String	The IP address of the deployment server.	3.1.1
sshUsername	String	The SSH username of the deployment server.	3.1.1
sshPassword	String	The SSH password of the deployment server.	3.1.1
sshPort	Integer	The SSH port of the deployment server.	3.1.1
storagePath	String	The storage path of the deployment server.	3.1.1
dhcpInterface	String	The DHCP NIC of the deployment server.	3.1.1

Name	Type	Description	Starting Version
dhcpRangeBegin	String	The starting IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeEnd	String	The ending IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeNetmask	String	The netmask of the IP range from which DHCP assigns an IP address to a bare metal instance.	3.1.1
state	String	The operating status of the deployment server.	3.1.1
status	String	The connection status of the deployment server.	3.1.1
createDate	Timestamp	The time when the deployment server was created.	3.1.1
lastOpDate	Timestamp	The time when the deployment server was last modified.	3.1.1
totalCapacity	Long	The total storage capacity in the specified storage path.	3.1.1
availableCapacity	Long	The available storage space in the specified storage path.	3.1.1
attachedClusterUuids	List	The UUIDs of the clusters to which the deployment server is attached.	3.1.1

SDK Sample

Java SDK

```
QueryBaremetalPxeServerAction action = new QueryBaremetalPxeServerAction();
action.conditions = asList("uuid=543c0df623633fe0a0158e955b1a5702");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBaremetalPxeServerAction.Result res = action.call();
```

Python SDK

```
QueryBaremetalPxeServerAction action = QueryBaremetalPxeServerAction()
action.conditions = ["uuid=a065f4830c9f301ead495e941ce7bd4e"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBaremetalPxeServerAction.Result res = action.call()
```

5.6.2.4 StartBaremetalPxeServer

API Request

URLs

```
PUT zstack/v1/baremetal/pxeservers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "startBaremetalPxeServer": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"startBaremetalPxeServer":{}}'
http://localhost:8080/zstack/v1/baremetal/
pxeservers/340b1f6b12ab305aa05c12ded00020e7/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the deployment server.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ac3a53373cfd328b8932bdd29f4886dd",
    "name": "test",
    "hostname": "127.0.0.1",
    "sshUsername": "root",
    "sshPassword": "password",
    "sshPort": 22.0,
    "storagePath": "/zstack_bm_cache",
    "dhcpInterface": "eth0",
    "dhcpRangeBegin": "10.0.0.1",
    "dhcpRangeEnd": "10.0.0.255",
    "dhcpRangeNetmask": "255.255.255.0",
    "state": "Enabled",
    "status": "Connected"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	2.6.0

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

SDK Sample

Java SDK

```
StartBaremetalPxeServerAction action = new StartBaremetalPxeServerAction();
action.uuid = "340b1f6b12ab305aa05c12ded00020e7";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
StartBaremetalPxeServerAction.Result res = action.call();
```

Python SDK

```
StartBaremetalPxeServerAction action = StartBaremetalPxeServerAction()
action.uuid = "340b1f6b12ab305aa05c12ded00020e7"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
StartBaremetalPxeServerAction.Result res = action.call()
```

5.6.2.5 StopBaremetalPxeServer

API Request

URLs

```
PUT zstack/v1/baremetal/pxeservers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "stopBaremetalPxeServer": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"stopBaremetalPxeServer":{}}'
http://localhost:8080/zstack/v1/baremetal/
pxeservers/26a3032ad77330df8de53c6d89f02f12/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the deployment server.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "743173fddfb0319fa9b21827875c1341",
    "name": "test",
    "hostname": "127.0.0.1",
    "sshUsername": "root",
    "sshPassword": "password",
    "sshPort": 22.0,
    "storagePath": "/zstack_bm_cache",
    "dhcpInterface": "eth0",
    "dhcpRangeBegin": "10.0.0.1",
    "dhcpRangeEnd": "10.0.0.255",
    "dhcpRangeNetmask": "255.255.255.0",
    "state": "Enabled",
    "status": "Disconnected"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

SDK Sample

Java SDK

```
StopBaremetalPxeServerAction action = new StopBaremetalPxeServerAction();
action.uuid = "26a3032ad77330df8de53c6d89f02f12";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
StopBaremetalPxeServerAction.Result res = action.call();
```

Python SDK

```
StopBaremetalPxeServerAction action = StopBaremetalPxeServerAction()
action.uuid = "26a3032ad77330df8de53c6d89f02f12"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
StopBaremetalPxeServerAction.Result res = action.call()
```

5.6.2.6 UpdateBaremetalPxeServer

API Request

URLs

```
PUT zstack/v1/baremetal/pxeservers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBaremetalPxeServer": {
    "name": "test",
    "hostname": "127.0.0.1",
    "sshUsername": "root",
    "sshPassword": "password",
    "sshPort": 22.0,
    "storagePath": "/zstack_bm_cache",
    "dhcpRangeBegin": "10.0.0.200",
    "dhcpRangeNetmask": "255.255.255.0",
    "state": "Enabled",
    "status": "Connected"
  },
}
```

```
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBaremetalPxeServer":
{"name":"test","dhcpRangeBegin":"10.0.0.200","dhcpRangeNetmask":"255.255.255.0"}}' \
http://localhost:8080/zstack/v1/baremetal/pxeservers/
da1ddf8e5ca838ea9fa55f20946dded6/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the deployment server.		2.6.0
name	String	body (contained in the updateBaremetalPxeServer structure)	Optional. The name of the deployment server.		2.6.0
description	String	body (contained in the updateBaremetalPxeServer structure)	Optional. The detailed description of the deployment server.		2.6.0
dhcpInterface	String	body (contained in the updateBaremetalPxeServer structure)	Optional. The DHCP NIC of the deployment server.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
dhcpRangeBegin	String	body (contained in the updateBare metalPxeServer structure)	Optional. The starting IP address that DHCP assigns to a bare metal instance.		2.6.0
dhcpRangeEnd	String	body (contained in the updateBare metalPxeServer structure)	Optional. The ending IP address that DHCP assigns to a bare metal instance.		2.6.0
dhcpRangeNetmask	String	body (contained in the updateBare metalPxeServer structure)	Optional. The netmask of the IP range from which the DHCP server assigns an IP address to a bare metal instance.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1a88afcf21b35aa82da9f4b734826b7",
    "name": "test",
    "dhcpInterface": "eth0",
    "dhcpRangeBegin": "10.0.0.1",
    "dhcpRangeEnd": "10.0.0.255",
    "dhcpRangeNetmask": "255.255.255.0"
  }
}
```


}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	BaremetalPxeServerInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the deployment server.	3.1.1

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	3.1.1
name	String	The name of the deployment server.	3.1.1
description	String	The detailed description of the deployment server.	3.1.1
hostname	String	The IP address of the deployment server.	3.1.1
sshUsername	String	The SSH username of the deployment server.	3.1.1
sshPassword	String	The SSH password of the deployment server.	3.1.1
sshPort	Integer	The SSH port of the deployment server.	3.1.1
storagePath	String	The storage path of the deployment server.	3.1.1
dhcpInterface	String	The DHCP NIC of the deployment server.	3.1.1
dhcpRangeBegin	String	The starting IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeEnd	String	The ending IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeNetmask	String	The netmask of the IP range from which DHCP assigns an IP address to a bare metal instance.	3.1.1
state	String	The operating status of the deployment server.	3.1.1
status	String	The connection status of the deployment server.	3.1.1

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the deployment server was created.	3.1.1
lastOpDate	Timestamp	The time when the deployment server was last modified.	3.1.1
totalCapacity	Long	The total storage capacity in the specified storage path.	3.1.1
availableCapacity	Long	The available storage space in the specified storage path.	3.1.1
attachedClusterUuids	List	The UUIDs of the clusters to which the deployment server is attached.	3.1.1

SDK Sample

Java SDK

```
UpdateBaremetalPxeServerAction action = new UpdateBaremetalPxeServerAction();
action.uuid = "da1ddf8e5ca838ea9fa55f20946dded6";
action.name = "test";
action.dhcpRangeBegin = "10.0.0.200";
action.dhcpRangeNetmask = "255.255.255.0";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateBaremetalPxeServerAction.Result res = action.call();
```

Python SDK

```
UpdateBaremetalPxeServerAction action = UpdateBaremetalPxeServerAction()
action.uuid = "da1ddf8e5ca838ea9fa55f20946dded6"
action.name = "test"
action.dhcpRangeBegin = "10.0.0.200"
action.dhcpRangeNetmask = "255.255.255.0"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateBaremetalPxeServerAction.Result res = action.call()
```

5.6.2.7 ReconnectBaremetalPxeServer

API Request

URLs

```
PUT zstack/v1/baremetal/pxeservers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectBaremetalPxeServer": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectBaremetalPxeServer":{}}'
http://localhost:8080/zstack/v1/baremetal/
pxeservers/65273a162ba83a4d99abc6ede60e6eeb/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the deployment server.		3.1.1
systemTags	List	body	Optional. The system tags.		3.1.1
userTags	List	body	Optional. The user tags.		3.1.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "95c83db8181c31ea84f2ed95b3800501",
    "name": "test",
    "hostname": "127.0.0.1",
    "sshUsername": "root",
    "sshPassword": "password",
    "sshPort": 22.0,
    "storagePath": "/zstack_bm_cache",
    "dhcpInterface": "eth0",
    "dhcpRangeBegin": "10.0.0.1",
    "dhcpRangeEnd": "10.0.0.255",
    "dhcpRangeNetmask": "255.255.255.0",
    "state": "Enabled",
    "status": "Connected"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.1.1
inventory	BaremetalPxeServerInventory	See inventory	3.1.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.1
description	String	The brief description of the error.	3.1.1
details	String	The details about the error.	3.1.1
elaboration	String	The reserved field. Default value: null.	3.1.1

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the deployment server.	3.1.1
zoneUuid	String	The zone UUID.	3.1.1
name	String	The name of the deployment server.	3.1.1
description	String	The detailed description of the deployment server.	3.1.1
hostname	String	The IP address of the deployment server.	3.1.1
sshUsername	String	The SSH username of the deployment server.	3.1.1
sshPassword	String	The SSH password of the deployment server.	3.1.1
sshPort	Integer	The SSH port of the deployment server.	3.1.1
storagePath	String	The storage path of the deployment server.	3.1.1
dhcpInterface	String	The DHCP NIC of the deployment server.	3.1.1
dhcpRangeBegin	String	The starting IP address that DHCP assigns to a bare metal instance.	3.1.1

Name	Type	Description	Starting Version
dhcpRangeEnd	String	The ending IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeNetmask	String	The netmask of the IP range from which DHCP assigns an IP address to a bare metal instance.	3.1.1
state	String	The operating status of the deployment server.	3.1.1
status	String	The connection status of the deployment server.	3.1.1
createDate	Timestamp	The time when the deployment server was created.	3.1.1
lastOpDate	Timestamp	The time when the deployment server was last modified.	3.1.1
totalCapacity	Long	The total storage capacity in the specified storage path.	3.1.1
availableCapacity	Long	The available storage space in the specified storage path.	3.1.1
attachedClusterUuids	List	The UUIDs of the clusters to which the deployment server is attached.	3.1.1

SDK Sample

Java SDK

```
ReconnectBaremetalPxeServerAction action = new ReconnectBaremetalPxeServerAction();
action.uuid = "65273a162ba83a4d99abc6ede60e6eeb";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ReconnectBaremetalPxeServerAction.Result res = action.call();
```

Python SDK

```
ReconnectBaremetalPxeServerAction action = ReconnectBaremetalPxeServerAction()
action.uuid = "65273a162ba83a4d99abc6ede60e6eeb"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ReconnectBaremetalPxeServerAction.Result res = action.call()
```

5.6.2.8 AttachBaremetalPxeServerToCluster

API Request

URLs

```
POST zstack/v1/clusters/{clusterUuid}/pxeservers/{pxeServerUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/
v1/clusters/47b43452a77a309e9c9e1b3b23a9e978/pxeservers/
b069eaeb0e2c355aaabca9738fb8332b
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pxeServerUuid	String	url	The UUID of the		3.1.1

Name	Type	Location	Description	Optional Value	Starting Version
			deployment server.		
clusterUuid	String	url	The UUID of the bare metal cluster.		3.1.1
systemTags	List	body	Optional. The system tags.		3.1.1
userTags	List	body	Optional. The user tags.		3.1.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "976aafa241603b26acb48dce89e29dec",
    "name": "test",
    "hostname": "127.0.0.1",
    "sshUsername": "root",
    "sshPassword": "password",
    "sshPort": 22.0,
    "storagePath": "/zstack_bm_cache",
    "dhcpInterface": "eth0",
    "dhcpRangeBegin": "10.0.0.1",
    "dhcpRangeEnd": "10.0.0.255",
    "dhcpRangeNetmask": "255.255.255.0",
    "state": "Enabled",
    "status": "Disconnected"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.1.1
inventory	BaremetalPxeServerInventory	See inventory	3.1.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.1
description	String	The brief description of the error.	3.1.1
details	String	The details about the error.	3.1.1
elaboration	String	The reserved field. Default value: null.	3.1.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the deployment server.	3.1.1
zoneUuid	String	The zone UUID.	3.1.1
name	String	The name of the deployment server.	3.1.1
description	String	The detailed description of the deployment server.	3.1.1
hostname	String	The IP address of the deployment server.	3.1.1
sshUsername	String	The SSH username of the deployment server.	3.1.1

Name	Type	Description	Starting Version
sshPassword	String	The SSH password of the deployment server.	3.1.1
sshPort	Integer	The SSH port of the deployment server.	3.1.1
storagePath	String	The storage path of the deployment server.	3.1.1
dhcpInterface	String	The DHCP NIC of the deployment server.	3.1.1
dhcpRangeBegin	String	The starting IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeEnd	String	The ending IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeNetmask	String	The netmask of the IP range from which DHCP assigns an IP address to a bare metal instance.	3.1.1
state	String	The operating status of the deployment server.	3.1.1
status	String	The connection status of the deployment server.	3.1.1
createDate	Timestamp	The time when the deployment server was created.	3.1.1
lastOpDate	Timestamp	The time when the deployment server was last modified.	3.1.1
totalCapacity	Long	The total storage capacity in the specified storage path.	3.1.1

Name	Type	Description	Starting Version
availableCapacity	Long	The available storage space in the specified storage path.	3.1.1
attachedClusterUuids	List	The UUIDs of the clusters to which the deployment server is attached.	3.1.1

SDK Sample

Java SDK

```
AttachBaremetalPxeServerToClusterAction action = new AttachBaremetalPxeServerToClusterAction();
action.pxeServerUuid = "b069eaeb0e2c355aaabca9738fb8332b";
action.clusterUuid = "47b43452a77a309e9c9e1b3b23a9e978";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachBaremetalPxeServerToClusterAction.Result res = action.call();
```

Python SDK

```
AttachBaremetalPxeServerToClusterAction action = AttachBaremetalPxeServerToClusterAction()
action.pxeServerUuid = "b069eaeb0e2c355aaabca9738fb8332b"
action.clusterUuid = "47b43452a77a309e9c9e1b3b23a9e978"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachBaremetalPxeServerToClusterAction.Result res = action.call()
```

5.6.2.9 DetachBaremetalPxeServerFromCluster

API Request

URLs

```
DELETE zstack/v1/clusters/{clusterUuid}/pxeservers/{pxeServerUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
clusters/42ade7c792e43f138f8b693294ad9b4c/
pxeservers/2e9c8220a3ea3dbf9f8c3cb66567ff52
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
pxeServerUuid	String	url	The UUID of the deployment server.		3.1.1
clusterUuid	String	url	The UUID of the bare metal cluster.		3.1.1
systemTags	List	body	Optional. The system tags.		3.1.1
userTags	List	body	Optional. The user tags.		3.1.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "bcd0703a8bbb394fa4e819ad90297b48",
    "name": "test",
    "hostname": "127.0.0.1",
    "sshUsername": "root",
    "sshPassword": "password",
    "sshPort": 22.0,
    "storagePath": "/zstack_bm_cache",
    "dhcpInterface": "eth0",
    "dhcpRangeBegin": "10.0.0.1",
    "dhcpRangeEnd": "10.0.0.255",
    "dhcpRangeNetmask": "255.255.255.0",
    "state": "Enabled",
    "status": "Disconnected"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.1.1
inventory	BaremetalPxeServerInventory	See inventory	3.1.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.1.1
description	String	The brief description of the error.	3.1.1
details	String	The details about the error.	3.1.1
elaboration	String	The reserved field. Default value: null.	3.1.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.1.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.1.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the deployment server.	3.1.1
zoneUuid	String	The zone UUID.	3.1.1
name	String	The name of the deployment server.	3.1.1
description	String	The detailed description of the deployment server.	3.1.1
hostname	String	The IP address of the deployment server.	3.1.1
sshUsername	String	The SSH username of the deployment server.	3.1.1

Name	Type	Description	Starting Version
sshPassword	String	The SSH password of the deployment server.	3.1.1
sshPort	Integer	The SSH port of the deployment server.	3.1.1
storagePath	String	The storage path of the deployment server.	3.1.1
dhcpInterface	String	The DHCP NIC of the deployment server.	3.1.1
dhcpRangeBegin	String	The starting IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeEnd	String	The ending IP address that DHCP assigns to a bare metal instance.	3.1.1
dhcpRangeNetmask	String	The netmask of the IP range from which DHCP assigns an IP address to a bare metal instance.	3.1.1
state	String	The operating status of the deployment server.	3.1.1
status	String	The connection status of the deployment server.	3.1.1
createDate	Timestamp	The time when the deployment server was created.	3.1.1
lastOpDate	Timestamp	The time when the deployment server was last modified.	3.1.1
totalCapacity	Long	The total storage capacity in the specified storage path.	3.1.1

Name	Type	Description	Starting Version
availableCapacity	Long	The available storage space in the specified storage path.	3.1.1
attachedClusterUuids	List	The UUIDs of the clusters to which the deployment server is attached.	3.1.1

SDK Sample

Java SDK

```
DetachBaremetalPxeServerFromClusterAction action = new DetachBaremetalPxeServerFromClusterAction();
action.pxeServerUuid = "2e9c8220a3ea3dbf9f8c3cb66567ff52";
action.clusterUuid = "42ade7c792e43f138f8b693294ad9b4c";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachBaremetalPxeServerFromClusterAction.Result res = action.call();
```

Python SDK

```
DetachBaremetalPxeServerFromClusterAction action = DetachBaremetalPxeServerFromClusterAction()
action.pxeServerUuid = "2e9c8220a3ea3dbf9f8c3cb66567ff52"
action.clusterUuid = "42ade7c792e43f138f8b693294ad9b4c"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachBaremetalPxeServerFromClusterAction.Result res = action.call()
```

5.7 Elastic Bare Metal Management(Plus)

The Elastic Bare Metal Management feature is provided in a separate module. Before you can use this feature, you need to purchase the Plus License of Elastic Bare Metal Management, in addition to the Base License.

5.7.1 GetAccessPath

API Request

URLs

```
GET zstack/v1/block-volumes/access/path/
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/block-volumes/access/path?
primaryStorageUuid=56963d0046b330839488e795b5109e44
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.7.11
userTags	List	query	Optional. The user tags.		4.7.11
primaryStorageUuid	String	query	The primary storage UUID.		4.7.11

API Response

Response Sample

```
{
  "pathInfos": [
    {
      "accessPathId": 1,
      "accessPathIqn": "iqn",
      "targetCount": 1
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.11
inventory	VolumeInventory	See pathInfos .	4.7.11

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.11

#pathInfos

Name	Type	Description	Starting Version
name	String	The resource name.	4.7.11
accessPathId	String	The access path id.	4.7.11
accessPathIqn	String	The access path iqn.	4.7.11
targetCount	Integer	The target count.	4.7.11
gatewayIps	List	The gateway IPs.	4.7.11

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

SDK Sample

Java SDK

```
CreateBlockVolumeAction action = new CreateBlockVolumeAction();
action.name = "example";
action.description = "block volume test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateBlockVolumeAction.Result res = action.call();
```

Python SDK

```
CreateBlockVolumeAction action = CreateBlockVolumeAction()
action.name = "example"
action.description = "block volume test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateBlockVolumeAction.Result res = action.call()
```

5.7.2 CreateBlockVolume

API Request

URLs

```
POST zstack/v1/block-volumes
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "example",
    "description": "block volume test"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X POST -d '{"params":{"name":"example","description":"block volume
test"}}'
http://localhost:8080/zstack/v1/block-volumes
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.7.11
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.7.11
size	Long	body (contained in the params structure)	The size.		4.7.11
primaryStorageUuid	String	body (contained in the params structure)	The primary storage UUID.		4.7.11
accessPathId	Integer	body (contained in the params structure)	Optional. The access path id.		5.1.0
accessPathIqn	String	body (contained in the params structure)	Optional. The access path iqn.		4.7.11
burstTotalBw	Long	body (contained in the params structure)	Optional. The burst total bandwidth.		4.7.11

Name	Type	Location	Description	Optional Value	Starting Version
burstTotalIops	Long	body (contained in the params structure)	Optional. The burst total IOPS.		4.7.11
maxTotalBw	Long	body (contained in the params structure)	Optional. The maximum total bandwidth.		4.7.11
maxTotalIops	Long	body (contained in the params structure)	Optional. The maximum total IOPS.		4.7.11
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.7.11
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.7.11
systemTags	List	body	Optional. The system tags.		4.7.11
userTags	List	body	Optional. The user tags.		4.7.11
protocol	String		Optional. The protocol.		5.1.0

API Response

Response Sample

```
{
  "inventory": {}
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.11
inventory	VolumeInventory	See inventory .	4.7.11

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.11

#inventory

Name	Type	Description	Starting Version
iscsiPath	String		4.7.11
vendor	String		4.7.11
uuid	String	The resource UUID.	4.7.11
name	String	The resource name.	4.7.11
description	String	The detailed description of the resource.	4.7.11
primaryStorageUuid	String	The primary storage UUID.	4.7.11
vmInstanceUuid	String	The VM Instance UUID.	4.7.11
diskOfferingUuid	String	The disk offering UUID.	4.7.11
rootImageUuid	String		4.7.11
installPath	String		4.7.11
type	String		4.7.11
format	String		4.7.11
size	Long		4.7.11
actualSize	Long		4.7.11
deviceId	Integer		4.7.11
state	String		4.7.11
status	String		4.7.11
createDate	Timestamp	The creation date.	4.7.11
lastOpDate	Timestamp	The last operation date.	4.7.11

Name	Type	Description	Starting Version
isShareable	Boolean		4.7.11
volumeQos	String		4.7.11
lastDetachDate	Timestamp		4.7.11
lastVmInstanceUuid	String		4.7.11

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
CreateBlockVolumeAction action = new CreateBlockVolumeAction();
action.name = "example";
action.description = "block volume test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreateBlockVolumeAction.Result res = action.call();
```

Python SDK

```
CreateBlockVolumeAction action = CreateBlockVolumeAction()
action.name = "example"
action.description = "block volume test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateBlockVolumeAction.Result res = action.call()
```

5.7.3 AddStorageProtocol

API Request

URLs

```
POST zstack/v1/primary-storage/protocol
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "uuid": "68c75f0058b93c61b30188e37b8fc5e9",
    "outputProtocol": "iSCSI"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"uuid":"68c75f0058b93c61b30188e37b8fc5e9","outputProtocol":"iSCSI"}}'
http://localhost:8080/zstack/v1/primary-storage/protocol
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in the params structure)	The resource UUID.		5.1.0
outputProtocol	String	body (contained in the params structure)	The output protocol.		5.1.0
systemTags	List	body	Optional. The system tags.		5.1.0
userTags	List	body	Optional. The user tags.		5.1.0

API Response

Response Sample

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddStorageProtocolAction action = new AddStorageProtocolAction();
action.uuid = "68c75f0058b93c61b30188e37b8fc5e9";
action.outputProtocol = "iSCSI";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddStorageProtocolAction.Result res = action.call();
```

Python SDK

```
AddStorageProtocolAction action = AddStorageProtocolAction()
action.uuid = "68c75f0058b93c61b30188e37b8fc5e9"
action.outputProtocol = "iSCSI"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddStorageProtocolAction.Result res = action.call()
```

5.7.4 UpdateXskyBlockVolume

API Request

URLs

```
PUT zstack/v1/xsky/block-volumes/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateXskyBlockVolume": {
    "name": "example"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"updateXskyBlockVolume":{"name":"example"}}'
http://localhost:8080/zstack/v1/xsky/block-volumes/
eeb07fe1a24833959f75c38b9c7e4132/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.11
name	String	body (contained in the updateXsky	The resource name.		4.7.11

Name	Type	Location	Description	Optional Value	Starting Version
		BlockVolume structure)			
description	String	body (contained in the updateXsky BlockVolume structure)	Optional. The detailed description of the resource.		4.7.11
burstTotalBw	Long	body (contained in the updateXsky BlockVolume structure)	Optional.		4.7.11
burstTotallops	Long	body (contained in the updateXsky BlockVolume structure)	Optional.		4.7.11
maxTotalBw	Long	body (contained in the updateXsky BlockVolume structure)	Optional.		4.7.11
maxTotallops	Long	body (contained in the updateXsky BlockVolume structure)	Optional.		4.7.11
systemTags	List	body	Optional. The system tags.		4.7.11
userTags	List	body	Optional. The user tags.		4.7.11

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UpdateXskyBlockVolumeAction action = new UpdateXskyBlockVolumeAction
();
action.uuid = "eeb07fe1a24833959f75c38b9c7e4132";
action.name = "example";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateXskyBlockVolumeAction.Result res = action.call();
```

Python SDK

```
UpdateXskyBlockVolumeAction action = UpdateXskyBlockVolumeAction()
action.uuid = "eeb07fe1a24833959f75c38b9c7e4132"
action.name = "example"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateXskyBlockVolumeAction.Result res = action.call()
```

5.7.5 QueryXskyBlockVolume

API Request

URLs

```
GET zstack/v1/xsky/block-volumes
GET zstack/xsky/block-volumes/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/xsky/block-volumes?
q=uuid=xxx&q=name=xxx
```

```
curl -H "Content-Type: application/json;charset=UTF-8"
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/xsky/block-
volumes/54e1b033658b3aa28536d0064c07c536
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryXskyBlockVolume`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryXskyBlockVolumeAction action = new QueryXskyBlockVolumeAction();
action.conditions = asList("uuid=xxx", "name=xxx");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryXskyBlockVolumeAction.Result res = action.call();
```

Python SDK

```
QueryXskyBlockVolumeAction action = QueryXskyBlockVolumeAction()
action.conditions = ["uuid=xxx", "name=xxx"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryXskyBlockVolumeAction.Result res = action.call()
```

5.7.6 QueryExponBlockVolume

API Request

URLs

```
GET zstack/v1/expon/block-volumes
```

```
GET zstack/v1/expon/block-volumes/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/expon/block-volumes?
q=uuid=xxx&q=name=xxx
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/expon/block-
volumes/57dcd9124665304191c221331ee95e6b
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryXskyBlockVolume`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "actualSize": 1406140416,
      "createDate": "Apr 22, 2024 5:01:23 PM",
      "deviceId": 1,
      "exponStatus": "normal",
      "format": "raw",
      "installPath": "expon://pool/55e7b5f5a19e42d69961
08a09c0ce22e",
      "isShareable": true,
      "iscsiPath": "iscsi://3260/",
      "lastAttachDate": "Apr 24, 2024 5:49:11 PM",
      "lastDetachDate": "Apr 22, 2024 5:04:15 PM",
      "lastOpDate": "Apr 24, 2024 5:49:11 PM",
      "lastVmInstanceUuid": "ce585c3170c646779c4827e06895d3e2",
      "name": "aaa444dd",
      "primaryStorageUuid": "173d49a118384c00a7d7ebf9815e54e2",
      "protocol": "iSCSI",
      "size": 4294967296,
      "state": "Enabled",
      "status": "Ready",
      "type": "Data",
      "uuid": "150c1b4cce834d0485df7f686a18b34f",
      "vendor": "expon"
    },
    {
      "actualSize": 0,
      "createDate": "Apr 15, 2024 10:04:55 AM",
      "exponStatus": "normal",

```

```

    "format": "raw",
    "installPath": "expon://pool/1af65a9e30ef45489a0c
545f1aa48c8e",
    "isShareable": true,
    "iscsiPath": "iscsi://3260/",
    "lastAttachDate": "Apr 17, 2024 1:06:07 PM",
    "lastDetachDate": "Apr 17, 2024 1:14:24 PM",
    "lastOpDate": "Apr 17, 2024 1:54:21 PM",
    "lastVmInstanceUuid": "c1d98d17677248dd958ece943401b603",
    "name": "sfa",
    "primaryStorageUuid": "173d49a118384c00a7d7ebf9815e54e2",
    "protocol": "iSCSI",
    "size": 4294967296,
    "state": "Enabled",
    "status": "Ready",
    "type": "Data",
    "uuid": "1c29001448e64a98a5c8efd264a62f2b",
    "vendor": "expon"
  }

```

Name	Type	Description	Starting Version
success	boolean		5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.0
inventories	List	See inventories .	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.0
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

#inventories

Name	Type	Description	Starting Version
actualSize	Long	The actual size.	5.1.0
createDate	String	The creation time.	5.1.0
deviceId	integer	The device ID.	5.1.0
exponStatus	String	The expon status.	5.1.0
format	String	The format.	5.1.0
installPath	String	The installation path.	5.1.0
isShareable	Boolean	Whether the block volume is sharable.	5.1.0
iscsiPath	String	The iSCSI path.	5.1.0
lastAttachDate	Timestamp	The last attachment time.	5.1.0
lastDetachDate	Timestamp	The last detachment time.	5.1.0
lastVmInstanceUuid	String	The UUID of the instance which the block volume was attached to last time.	5.1.0
name	String	The resource name.	5.1.0
primaryStorageUuid	String	The primary storage UUID.	5.1.0
protocol	String	The protocol.	5.1.0
size	Long	The block volume size.	5.1.0
state	String	Whether the block volume is enabled.	5.1.0

Name	Type	Description	Starting Version
status	String	Whether the block volume is ready.	5.1.0
type	String	The type.	5.1.0
uuid	String	The resource UUID.	5.1.0
vendor	String	The vendor.	5.1.0

SDK Sample

Java SDK

```
QueryXskyBlockVolumeAction action = new QueryXskyBlockVolumeAction();
action.conditions = asList("uuid=xxx", "name=xxx");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryXskyBlockVolumeAction.Result res = action.call();
```

Python SDK

```
QueryXskyBlockVolumeAction action = QueryXskyBlockVolumeAction()
action.conditions = ["uuid=xxx", "name=xxx"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryXskyBlockVolumeAction.Result res = action.call()
```

5.7.7 DeleteBareMetal2Chassis

API Request

URLs

```
DELETE zstack/v1/baremetal2/chassis/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/baremetal2/
chassis/3f793d991a023499bda3e179e6910317
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		4.0.0
deleteMode	String	body	Optional. The deletion mode.	• Permissive • Enforcing	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteBareMetal2ChassisAction action = new DeleteBareMetal2ChassisAction();
action.uuid = "3f793d991a023499bda3e179e6910317";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteBareMetal2ChassisAction.Result res = action.call();
```

Python SDK

```
DeleteBareMetal2ChassisAction action = DeleteBareMetal2ChassisAction()
action.uuid = "3f793d991a023499bda3e179e6910317"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteBareMetal2ChassisAction.Result res = action.call()
```

5.7.8 UpdateBareMetal2Chassis

API Request

URLs

```
PUT zstack/v1/baremetal2/chassis/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBareMetal2Chassis": {
    "name": "NEW_BM_CHASSIS",
    "description": "This is a new bare metal chassis."
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBareMetal2Chassis":
{"name":"NEW_BM_CHASSIS","description":"This is a new bare
metal chassis."}}' http://localhost:8080/zstack/v1/baremetal2/
chassis/4e99972d89a63a9fa061971a3267374f/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		4.0.0
name	String	body(contained in the updateBare	Optional. The name of the		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		metalChassis structure)	bare metal chassis.		
description	String	body(contained in the updateBare metalChassis structure)	Optional. The detailed description of the bare metal chassis.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ff9c61a4323b429eb53552098b3582e5",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "zoneUuid": "6324e249a6434599867f0bdc4166f89d",
    "clusterUuid": "4569c6fc1b4e453691bfa3bed90d66d2",
    "chassisOfferingUuid": "dfd1ef44f65f49a8b788a31727eeea17",
    "type": "IPMI",
    "state": "Enabled",
    "status": "Available",
    "powerStatus": "POWER_ON",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BaremetalChassisInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	4.0.0
name	String	The name of the bare metal chassis.	4.0.0
description	String	The detailed description of the bare metal chassis.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0

Name	Type	Description	Starting Version
type	String	The type of the protocol used to control bare metal chassis and instances.	4.0.0
state	String	The state of the chassis.	4.0.0
status	String	The distribution status of the chassis.	4.0.0
powerStatus	String	The power status of the chassis.	4.0.0
createDate	Timestamp	The time when the chassis was added to the cluster.	4.0.0
lastOpDate	Timestamp	The time when the chassis was last modified.	4.0.0
chassisNics	List	See chassisNics .	4.0.0
chassisDisks	List	See chassisDisks .	4.0.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering .	4.0.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.0.0
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
mac	String	The MAC address of the chassis NIC.	4.0.0
speed	String	The data rate of the chassis NIC.	4.0.0
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.0.0
chassisUuid	String	The chassis UUID.	4.0.0
diskSize	Long	The size of the disk storage space, in bytes.	4.0.0
type	String	The type of the disk.	4.0.0
createDate	Timestamp	The time when the disk was created.	4.0.0
lastOpDate	Timestamp	The time when the disk was last modified.	4.0.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0

Name	Type	Description	Starting Version
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
UpdateBareMetal2ChassisAction action = new UpdateBareMetal2ChassisAction();
action.uuid = "4e99972d89a63a9fa061971a3267374f";
action.name = "NEW_BM_CHASSIS";
action.description = "This is a new bare metal chassis.";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateBareMetal2ChassisAction.Result res = action.call();
```

Python SDK

```
UpdateBareMetal2ChassisAction action = UpdateBareMetal2ChassisAction()
action.uuid = "4e99972d89a63a9fa061971a3267374f"
action.name = "NEW_BM_CHASSIS"
action.description = "This is a new bare metal chassis."
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
UpdateBareMetal2ChassisAction.Result res = action.call()
```

5.7.9 QueryBareMetal2ChassisGpuDevice

API Request

URLs

```
GET zstack/v1/baremetal2/chassis/gpu-device/gpu-devices
```

```
GET zstack/v1/baremetal2/chassis/gpu-device/gpu-devices/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis/gpu-device/
gpu-devices?
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis/gpu-device/
gpu-devices/0182e9be97a2385f9e32ff2f77540abb
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryBareMetal2ChassisGpuDevice`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {}
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.8
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	5.1.8

Name	Type	Description	Starting Version
		more information, see error .	
inventories	List	See inventories .	5.1.8

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.8
description	String	The detailed description of the resource.	5.1.8
details	String	The details about the error.	5.1.8
elaboration	String	The reserved field. Default value: null.	5.1.8
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.8
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.8

#inventories

Name	Type	Description	Starting Version
serialNumber	String		5.1.8
memory	String		5.1.8
power	String		5.1.8
uuid	String	The resource UUID.	5.1.8
chassisUuid	String		5.1.8

Name	Type	Description	Starting Version
description	String	The resource description.	5.1.8
type	String		5.1.8
pciDeviceAddress	String		5.1.8
vendorId	String		5.1.8
deviceId	String		5.1.8
subvendorId	String		5.1.8
subdeviceId	String		5.1.8
iommuGroup	String		5.1.8
name	String	The resource name.	5.1.8
vendor	String		5.1.8
device	String		5.1.8
createDate	Timestamp	The creation date.	5.1.8
lastOpDate	Timestamp	The last operation date.	5.1.8

SDK Sample

Java SDK

```
QueryBareMetal2ChassisGpuDeviceAction action = new QueryBareMetal2ChassisGpuDeviceAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBareMetal2ChassisGpuDeviceAction.Result res = action.call();
```

Python SDK

```
QueryBareMetal2ChassisGpuDeviceAction action = QueryBareMetal2ChassisGpuDeviceAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryBareMetal2ChassisGpuDeviceAction.Result res = action.call()
```

5.7.10 QueryBareMetal2ChassisPciDevice

API Request

URLs

```
GET zstack/v1/baremetal2/chassis/pci-device/pci-devices
```

```
GET zstack/v1/baremetal2/chassis/pci-device/pci-devices/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis/pci-device/
pci-devices?
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis/pci-device/
pci-devices/a2c7298ca3b53d7da79988705ce21ec3
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryBareMetal2ChassisGpuDevice`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {}
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.8
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	5.1.8

Name	Type	Description	Starting Version
		more information, see error .	
inventories	List	See inventories .	5.1.8

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.8
description	String	The detailed description of the resource.	5.1.8
details	String	The details about the error.	5.1.8
elaboration	String	The reserved field. Default value: null.	5.1.8
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.8
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.8

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.8
chassisUuid	String		5.1.8
description	String	The resource description.	5.1.8
type	String		5.1.8
pciDeviceAddress	String		5.1.8

Name	Type	Description	Starting Version
vendorId	String		5.1.8
deviceId	String		5.1.8
subvendorId	String		5.1.8
subdeviceId	String		5.1.8
iommuGroup	String		5.1.8
name	String	The resource name.	5.1.8
vendor	String		5.1.8
device	String		5.1.8
createDate	Timestamp	The creation date.	5.1.8
lastOpDate	Timestamp	The last operation date.	5.1.8

SDK Sample

Java SDK

```
QueryBareMetal2ChassisPciDeviceAction action = new QueryBareMetal2ChassisPciDeviceAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBareMetal2ChassisPciDeviceAction.Result res = action.call();
```

Python SDK

```
QueryBareMetal2ChassisPciDeviceAction action = QueryBareMetal2ChassisPciDeviceAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryBareMetal2ChassisPciDeviceAction.Result res = action.call()
```

5.7.11 GetBareMetal2SupportedBootMode

API Request

URLs

```
GET /v1/baremetal2/chassis/supported-boot-modes
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis/supported-
boot-modes
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.0.0
userTags	List	query	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "supportedBootMode": "UEFI"
}
```

Name	Type	Description	Starting Version
supportedBootMode	String	The supported boot mode.	4.0.0
success	boolean	Indicates whether the API request succeeded.	4.0.0
error	ErrorCode	The error code. If not null, the operation	4.0.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

SDK Sample

Java SDK

```
GetBareMetal2SupportedBootModeAction action = new GetBareMetal2SupportedBootModeAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetBareMetal2SupportedBootModeAction.Result res = action.call();
```

Python SDK

```
GetBareMetal2SupportedBootModeAction action = GetBareMetal2SupportedBootModeAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
GetBareMetal2SupportedBootModeAction.Result res = action.call()
```

5.7.12 QueryBareMetal2Chassis

API Request

URLs

```
GET zstack/v1/baremetal2/chassis
```

```
GET zstack/v1/baremetal2/chassis/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis/
fe0910252e6933f197074d0672e7512c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryBareMetal2Chassis`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "7e131e3f9aed47b38e3da0a722124fc1",
      "name": "BM_CHASSIS",
      "description": "This is a bare metal chassis.",
      "zoneUuid": "d6b27e49ee6647e48b0a61f16ff24134",
      "clusterUuid": "d4003ca2d0a74f8ea3758e18095b4598",
      "chassisOfferingUuid": "60f8b2a5472846ebbb603933f84d9dff6",
      "type": "IPMI",
      "state": "Enabled",
      "status": "Available",
      "powerStatus": "POWER_ON",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	See inventories .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	4.0.0
name	String	The name of the bare metal chassis.	4.0.0
description	String	The detailed description of the bare metal chassis.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
type	String	The type of the protocol used to control bare metal chassis and instances.	4.0.0
state	String	The state of the chassis.	4.0.0
status	String	The distribution status of the chassis.	4.0.0
powerStatus	String	The power status of the chassis.	4.0.0
createDate	Timestamp	The time when the chassis was added to the cluster.	4.0.0
lastOpDate	Timestamp	The time when the chassis was last modified.	4.0.0
chassisNics	List	See chassisNics .	4.0.0
chassisDisks	List	See chassisDisks .	4.0.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering .	4.0.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.0.0
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
mac	String	The MAC address of the chassis NIC.	4.0.0
speed	String	The data rate of the chassis NIC.	4.0.0
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.0.0
chassisUuid	String	The chassis UUID.	4.0.0
diskSize	Long	The size of the disk storage space, in bytes.	4.0.0
type	String	The type of the disk.	4.0.0
createDate	Timestamp	The time when the disk was created.	4.0.0
lastOpDate	Timestamp	The time when the disk was last modified.	4.0.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0

Name	Type	Description	Starting Version
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
QueryBareMetal2ChassisAction action = new QueryBareMetal2ChassisAction();
action.conditions = asList("uuid=9e93f7377ef9316d888fd2f0f9d8c3cf");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBareMetal2ChassisAction.Result res = action.call();
```

Python SDK

```
QueryBareMetal2ChassisAction action = QueryBareMetal2ChassisAction()
action.conditions = ["uuid=9753116ff50a3f9ea28d7c02bb4e9eb8"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryBareMetal2ChassisAction.Result res = action.call()
```

5.7.13 InspectBareMetal2Chassis

API Request

URLs

```
PUT zstack/v1/baremetal2/chassis/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "inspectBareMetal2Chassis": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"inspectBareMetal2Chassis":{}}' \
http://localhost:8080/zstack/v1/baremetal2/
chassis/374cb67145683e44a18ed671a424142f/actions
```

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "bc5e32728aa54d3585b8f75fe4a9d7bb",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "zoneUuid": "b7b96162d5464b1cb3ba7704675d1335",
    "clusterUuid": "4c8c2faa3c4a4b77947564ba8abadbc8",
    "chassisOfferingUuid": "2e90012ebfa34c6881e983ce478486d4",
    "type": "IPMI",
    "state": "Enabled",
    "status": "Available",
    "powerStatus": "POWER_ON",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ChassisInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	4.0.0
name	String	The name of the bare metal chassis.	4.0.0
description	String	The detailed description of the bare metal chassis.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
type	String	The type of the protocol used to control bare metal chassis and instances.	4.0.0
state	String	The state of the chassis.	4.0.0
status	String	The distribution status of the chassis.	4.0.0
powerStatus	String	The power status of the chassis.	4.0.0
createDate	Timestamp	The time when the chassis was added to the cluster.	4.0.0
lastOpDate	Timestamp	The time when the chassis was last modified.	4.0.0
chassisNics	List	See chassisNics .	4.0.0
chassisDisks	List	See chassisDisks .	4.0.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering .	4.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.0.0
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
mac	String	The MAC address of the chassis NIC.	4.0.0
speed	String	The data rate of the chassis NIC.	4.0.0
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.0.0
chassisUuid	String	The chassis UUID.	4.0.0
diskSize	Long	The size of the disk storage space, in bytes.	4.0.0
type	String	The type of the disk.	4.0.0
createDate	Timestamp	The time when the disk was created.	4.0.0
lastOpDate	Timestamp	The time when the disk was last modified.	4.0.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0

Name	Type	Description	Starting Version
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
InspectBareMetal2ChassisAction action = new InspectBareMetal2ChassisAction();
action.uuid = "374cb67145683e44a18ed671a424142f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
InspectBareMetal2ChassisAction.Result res = action.call();
```

Python SDK

```
InspectBareMetal2ChassisAction action = InspectBareMetal2ChassisAction()
action.uuid = "374cb67145683e44a18ed671a424142f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
InspectBareMetal2ChassisAction.Result res = action.call()
```

5.7.14 PowerOnBareMetal2Chassis

API Request

URLs

```
PUT zstack/v1/baremetal2/chassis/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "powerOnBareMetal2Chassis": {
    "bootDev": "ipxe",
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"powerOnBareMetal2Chassis":{"bootDev":"ipxe"}}' \
http://localhost:8080/zstack/v1/baremetal2/
chassis/4afdf33129373e5d845a46226bd698c1/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		4.0.0
bootDev	String	body(contained in the powerOnBar	Optional. The device used to boot the chassis.	- disk - ipxe	4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		eMetal2Chassis structure)			
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "fe18fce7bab640479fc99e963f27765c",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "zoneUuid": "9f82f0a1782141a0a50cb0fc4e55862b",
    "clusterUuid": "27fb6e8be3ea4f3f9beb9f13978b2df4",
    "chassisOfferingUuid": "89db818c01014601b4e3c0e9980f6be0",
    "type": "IPMI",
    "state": "Enabled",
    "status": "Available",
    "powerStatus": "POWER_ON",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ChassisInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	4.0.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	4.0.0
name	String	The name of the bare metal chassis.	4.0.0
description	String	The detailed description of the bare metal chassis.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
type	String	The type of the protocol used to control bare metal chassis and instances.	4.0.0

Name	Type	Description	Starting Version
state	String	The state of the chassis.	4.0.0
status	String	The distribution status of the chassis.	4.0.0
powerStatus	String	The power status of the chassis.	4.0.0
createDate	Timestamp	The time when the chassis was added to the cluster.	4.0.0
lastOpDate	Timestamp	The time when the chassis was last modified.	4.0.0
chassisNics	List	See chassisNics .	4.0.0
chassisDisks	List	See chassisDisks .	4.0.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering .	4.0.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.0.0
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
mac	String	The MAC address of the chassis NIC.	4.0.0
speed	String	The data rate of the chassis NIC.	4.0.0
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.0.0
chassisUuid	String	The chassis UUID.	4.0.0
diskSize	Long	The size of the disk storage space, in bytes.	4.0.0
type	String	The type of the disk.	4.0.0
createDate	Timestamp	The time when the disk was created.	4.0.0
lastOpDate	Timestamp	The time when the disk was last modified.	4.0.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
PowerOnBareMetal2ChassisAction action = new PowerOnBareMetal2ChassisAction();
action.uuid = "4afdf33129373e5d845a46226bd698c1";
action.bootDev = "ipxe";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PowerOnBareMetal2ChassisAction.Result res = action.call();
```

Python SDK

```
PowerOnBareMetal2ChassisAction action = PowerOnBareMetal2ChassisAction()
action.uuid = "4afdf33129373e5d845a46226bd698c1"
action.bootDev = "ipxe"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
PowerOnBareMetal2ChassisAction.Result res = action.call()
```

5.7.15 PowerOffBareMetal2Chassis

API Request

URLs

```
PUT zstack/v1/baremetal2/chassis/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "powerOffBareMetal2Chassis": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"powerOffBareMetal2Chassis":{}}'
http://localhost:8080/zstack/v1/baremetal2/chassis/
d6e50887e1a6309c85e2f61aa2669c09/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a4d5ea20fd11487c92be0f342839d087",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "zoneUuid": "2001f4c806194ec5a702c8182ef656be",
    "clusterUuid": "6e7ec663eead4469b222e4d93c23c54b",
    "chassisOfferingUuid": "f946913c5a9a4e6a9205cee80f107bfc",
    "type": "IPMI",
    "state": "Enabled",
    "status": "Available",
    "powerStatus": "POWER_ON",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0

Name	Type	Description	Starting Version
inventory	BareMetal2ChassisInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	4.0.0
name	String	The name of the bare metal chassis.	4.0.0
description	String	The detailed description of the bare metal chassis.	4.0.0

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
type	String	The type of the protocol used to control bare metal chassis and instances.	4.0.0
state	String	The state of the chassis.	4.0.0
status	String	The distribution status of the chassis.	4.0.0
powerStatus	String	The power status of the chassis.	4.0.0
createDate	Timestamp	The time when the chassis was added to the cluster.	4.0.0
lastOpDate	Timestamp	The time when the chassis was last modified.	4.0.0
chassisNics	List	See chassisNics .	4.0.0
chassisDisks	List	See chassisDisks .	4.0.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering .	4.0.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.0.0
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
mac	String	The MAC address of the chassis NIC.	4.0.0

Name	Type	Description	Starting Version
speed	String	The data rate of the chassis NIC.	4.0.0
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.0.0
chassisUuid	String	The chassis UUID.	4.0.0
diskSize	Long	The size of the disk storage space, in bytes.	4.0.0
type	String	The type of the disk.	4.0.0
createDate	Timestamp	The time when the disk was created.	4.0.0
lastOpDate	Timestamp	The time when the disk was last modified.	4.0.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0

Name	Type	Description	Starting Version
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
PowerOffBareMetal2ChassisAction action = new PowerOffBareMetal2ChassisAction();
action.uuid = "d6e50887e1a6309c85e2f61aa2669c09";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PowerOffBareMetal2ChassisAction.Result res = action.call();
```

Python SDK

```
PowerOffBareMetal2ChassisAction action = PowerOffBareMetal2ChassisAction()
action.uuid = "d6e50887e1a6309c85e2f61aa2669c09"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
PowerOffBareMetal2ChassisAction.Result res = action.call()
```

5.7.16 PowerResetBareMetal2Chassis

API Request

URLs

```
PUT zstack/v1/baremetal2/chassis/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "powerResetBareMetal2Chassis": {
    "bootDev": "ipxe",
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"powerResetBareMetal2Chassis":{"bootDev":"ipxe"}}'
http://localhost:8080/zstack/v1/baremetal2/
chassis/8732657cd2763a929ce2deb3d246c6b1/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		4.0.0
bootDev	String	body(contained in the powerResetBareMetal2	Optional. The device used to boot the chassis.	- disk - ipxe	4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		Chassis structure)			
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "cce529c23f734cdba583bd613981b5ba",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "zoneUuid": "294ec41558af487280ed7c80aed67566",
    "clusterUuid": "6507f73219b94dcfa881bf5dca8b8e52",
    "chassisOfferingUuid": "a55f2ecd884b4ea49f29d171fae426d7",
    "type": "IPMI",
    "state": "Enabled",
    "status": "Available",
    "powerStatus": "POWER_ON",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ChassisInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	4.0.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	4.0.0
name	String	The name of the bare metal chassis.	4.0.0
description	String	The detailed description of the bare metal chassis.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
type	String	The type of the protocol used to control bare metal chassis and instances.	4.0.0

Name	Type	Description	Starting Version
state	String	The state of the chassis.	4.0.0
status	String	The distribution status of the chassis.	4.0.0
powerStatus	String	The power status of the chassis.	4.0.0
createDate	Timestamp	The time when the chassis was added to the cluster.	4.0.0
lastOpDate	Timestamp	The time when the chassis was last modified.	4.0.0
chassisNics	List	See chassisNics .	4.0.0
chassisDisks	List	See chassisDisks .	4.0.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering .	4.0.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.0.0
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
mac	String	The MAC address of the chassis NIC.	4.0.0
speed	String	The data rate of the chassis NIC.	4.0.0
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.0.0
chassisUuid	String	The chassis UUID.	4.0.0
diskSize	Long	The size of the disk storage space, in bytes.	4.0.0
type	String	The type of the disk.	4.0.0
createDate	Timestamp	The time when the disk was created.	4.0.0
lastOpDate	Timestamp	The time when the disk was last modified.	4.0.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
PowerResetBareMetal2ChassisAction action = new PowerResetBareMetal2ChassisAction();
action.uuid = "8732657cd2763a929ce2deb3d246c6b1";
action.bootDev = "ipxe";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PowerResetBareMetal2ChassisAction.Result res = action.call();
```

Python SDK

```
PowerResetBareMetal2ChassisAction action = PowerResetBareMetal2ChassisAction()
action.uuid = "8732657cd2763a929ce2deb3d246c6b1"
action.bootDev = "ipxe"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
PowerResetBareMetal2ChassisAction.Result res = action.call()
```

5.7.17 GetBareMetal2ChassisPowerStatus

API Request

URLs

```
GET zstack/v1/baremetal2/chassis/{uuid}/powerstatus
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis/5b681b2883c33eee8d536dde6fc6edc0/powerstatus
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		4.0.0
systemTags	List	query	Optional. The system tags.		4.0.0
userTags	List	query	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "status": "ON"
}
```

Name	Type	Description	Starting Version
status	String	The power status of the chassis.	4.0.0
success	boolean	Indicates whether the power status is successfully retrieved.	4.0.0
error	ErrorCode	See error .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

SDK Sample

Java SDK

```
GetBareMetal2ChassisPowerStatusAction action = new GetBareMetal2ChassisPowerStatusAction();
action.uuid = "5b681b2883c33eee8d536dde6fc6edc0";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetBareMetal2ChassisPowerStatusAction.Result res = action.call();
```

Python SDK

```
GetBareMetal2ChassisPowerStatusAction action = GetBareMetal2ChassisPowerStatusAction()
action.uuid = "5b681b2883c33eee8d536dde6fc6edc0"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetBareMetal2ChassisPowerStatusAction.Result res = action.call()
```

5.7.18 ChangeBareMetal2ChassisState

API Request

URLs

```
PUT zstack/v1/baremetal2/chassis/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeBareMetal2ChassisState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
```

```
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeBareMetal2ChassisState":{"stateEvent":"enable"}}'
http://localhost:8080/zstack/v1/baremetal2/
chassis/6661f1145e90370f921d4809cf5d542f/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis.		4.0.0
stateEvent	String	body(contained in the changeBareMetal2ChassisState structure)	The event that changes the state of the chassis.	- enable - disable	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "bba32ab86c2144f28e37dc5a08b851f1",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "zoneUuid": "0c20255099d7481f91780b0d2e4efb0c",
    "clusterUuid": "36dc10452949470385c15a1b24e5a5b9",
    "chassisOfferingUuid": "5e58278750c14cbf86b5447ddd848fea",
    "type": "IPMI",
    "state": "Enabled",
```

```

    "status": "Available",
    "powerStatus": "POWER_ON",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}

```

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ChassisInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	4.0.0
name	String	The name of the bare metal chassis.	4.0.0
description	String	The detailed description of the bare metal chassis.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
type	String	The type of the protocol used to control bare metal chassis and instances.	4.0.0
state	String	The state of the chassis.	4.0.0
status	String	The distribution status of the chassis.	4.0.0
powerStatus	String	The power status of the chassis.	4.0.0
createDate	Timestamp	The time when the chassis was added to the cluster.	4.0.0
lastOpDate	Timestamp	The time when the chassis was last modified.	4.0.0
chassisNics	List	See chassisNics .	4.0.0
chassisDisks	List	See chassisDisks .	4.0.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering .	4.0.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.0.0
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
mac	String	The MAC address of the chassis NIC.	4.0.0
speed	String	The data rate of the chassis NIC.	4.0.0
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.0.0
chassisUuid	String	The chassis UUID.	4.0.0
diskSize	Long	The size of the disk storage space, in bytes.	4.0.0
type	String	The type of the disk.	4.0.0
createDate	Timestamp	The time when the disk was created.	4.0.0
lastOpDate	Timestamp	The time when the disk was last modified.	4.0.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0

Name	Type	Description	Starting Version
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
ChangeBareMetal2ChassisStateAction action = new ChangeBareMetal2ChassisStateAction();
action.uuid = "6661f1145e90370f921d4809cf5d542f";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeBareMetal2ChassisStateAction.Result res = action.call();
```

Python SDK

```
ChangeBareMetal2ChassisStateAction action = ChangeBareMetal2ChassisStateAction()
action.uuid = "6661f1145e90370f921d4809cf5d542f"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeBareMetal2ChassisStateAction.Result res = action.call()
```

5.7.19 AddBareMetal2IpmiChassis

API Request

URLs

```
POST zstack/v1/baremetal2/chassis/ipmi
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "ipmiAddress": "192.168.0.10",
    "ipmiPort": 623.0,
    "ipmiUsername": "root",
    "ipmiPassword": "password",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "clusterUuid": "68e54b937895308ca398f21826eb1343",
    "provisionType": "Remote"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"ipmiAddress":"192.168.0.10", "ipmiPort":623.0, "ipmiUsername":"root", "ipmiPasswor
is a bare metal
chassis.", "clusterUuid":"68e54b937895308ca398f21826eb1343"}}' http://
localhost:8080/zstack/v1/baremetal2/chassis/ipmi
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
ipmiAddress	String	body(contained in the params structure)	The IPMI address.		4.0.0
ipmiPort	Integer	body(contained in the params structure)	Optional. The IPMI port.		4.0.0
ipmiUsername	String	body(contained in the params structure)	The IPMI username.		4.0.0
ipmiPassword	String	body(contained in the params structure)	The IPMI password.		4.0.0
name	String	body(contained in the params structure)	The name of the bare metal chassis.		4.0.0
description	String	body(contained in the params structure)	Optional. The detailed description of the bare metal chassis.		4.0.0
clusterUuid	String	body(contained in the params structure)	The cluster UUID.		4.0.0
resourceUuid	String	body(contained in the params structure)	Optional. The chassis UUID .		4.0.0
provisionType	String	body(contained in the params structure)	Optional. The startup method.	• Remote • Local • Direct	4.3.12
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
userTags	List	body	Optional. The user tags.		4.0.0

**Note:**

- When you add a baremetal node of the local disk (non take-over) type on ZStack Cloud, you can record the local system information by adding **chassisPlatform** to the **SystemTags** to **chassisPlatform** option.
 - Format: chassisPlatform::system type
 - Example: chassisPlatform::Windows

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "37e556edd6d2439e80f5b620750cf2cf",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "zoneUuid": "ccbd627d113a4b9581a90fbec45cedc",
    "clusterUuid": "5fc0111a027a4c9b9f19ca9ba83b5cbd",
    "chassisOfferingUuid": "ec563730b5a94ad8a838406a7a7d3888",
    "type": "IPMI",
    "state": "Enabled",
    "status": "Available",
    "powerStatus": "POWER_ON",
    "provisionType": "Remote",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ChassisInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	4.0.0
name	String	The name of the bare metal chassis.	4.0.0
description	String	The detailed description of the bare metal chassis.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0

Name	Type	Description	Starting Version
type	String	The type of the protocol used to control bare metal chassis and instances.	4.0.0
state	String	The state of the chassis.	4.0.0
status	String	The distribution status of the chassis.	4.0.0
powerStatus	String	The power status of the chassis.	4.0.0
createDate	Timestamp	The time when the chassis was added to the cluster.	4.0.0
lastOpDate	Timestamp	The time when the chassis was last modified.	4.0.0
chassisNics	List	See chassisNics .	4.0.0
chassisDisks	List	See chassisDisks .	4.0.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering .	4.0.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.0.0
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
mac	String	The MAC address of the chassis NIC.	4.0.0
speed	String	The data rate of the chassis NIC.	4.0.0
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.0.0
chassisUuid	String	The chassis UUID.	4.0.0
diskSize	Long	The size of the disk storage space, in bytes.	4.0.0
type	String	The type of the disk.	4.0.0
createDate	Timestamp	The time when the disk was created.	4.0.0
lastOpDate	Timestamp	The time when the disk was last modified.	4.0.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0

Name	Type	Description	Starting Version
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
AddBareMetal2IpmiChassisAction action = new AddBareMetal2IpmiChassisAction();
action.ipmiAddress = "192.168.0.10";
action.ipmiPort = 623.0;
action.ipmiUsername = "root";
action.ipmiPassword = "password";
action.name = "BM_CHASSIS";
action.description = "This is a bare metal chassis.";
action.clusterUuid = "68e54b937895308ca398f21826eb1343";
action.provisionType = "Remote";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddBareMetal2IpmiChassisAction.Result res = action.call();
```

Python SDK

```
AddBareMetal2IpmiChassisAction action = AddBareMetal2IpmiChassisAction()
action.ipmiAddress = "192.168.0.10"
action.ipmiPort = 623.0
action.ipmiUsername = "root"
action.ipmiPassword = "password"
action.name = "BM_CHASSIS"
action.description = "This is a bare metal chassis."
action.clusterUuid = "68e54b937895308ca398f21826eb1343"
action.provisionType = "Remote"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddBareMetal2IpmiChassisAction.Result res = action.call()
```

5.7.20 BatchAddBareMetal2IpmiChassis

API Request

URLs

```
POST zstack/v1/baremetal2/chassis/ipmi/from-file
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "chassisInfo": "FILE CONTENT ENCODE BY BASE64"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"chassisInfo":"FILE CONTENT ENCODE BY BASE64"}}' http://localhost:8080/zstack/v1/baremetal2/chassis/ipmi/from-file
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
chassisInfo	String	body(contained in the params structure)	The Base64-encoded configuration file of bare metal chassis.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
longJobName	String	body(contained in the params structure)	Optional. The name of the long job.		4.0.0
longJobDescription	String	body(contained in the params structure)	Optional. The description of the long job.		4.0.0
resourceUuid	String	body(contained in the params structure)	Optional. The UUID of the long job.		4.0.0
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1a3e5b9ece0738f5b1ca785271dd7b34",
    "name": "APIBatchAddBareMetal2ChassisEvent",
    "apiId": "d22289087f32358ca7d06ed3c1969462",
    "jobName": "APIBatchAddBareMetal2ChassisEvent",
    "jobData": "{\"createMessages\":[]",
    "jobResult": "",
    "state": "Succeeded",
    "managementNodeUuid": "a0b0f5b18c6e3cbb84b7d75e3eea991d"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0

Name	Type	Description	Starting Version
inventory	LongJobInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the API request.	4.0.0
name	String	The name of the API.	4.0.0
description	String	The detailed description of the long job.	4.0.0
apild	String	The ID of the long job.	4.0.0
jobName	String	The name of the long job.	4.0.0

Name	Type	Description	Starting Version
jobData	String	The data about the long job.	4.0.0
jobResult	String	The result of the long job.	4.0.0
targetResourceUuid	String	The UUID of the long job.	4.0.0
managementNodeUuid	String	The UUID of the management node.	4.0.0
createDate	Timestamp	The time when the long job was created.	4.0.0
lastOpDate	Timestamp	The time when the long job was last operated.	4.0.0
state	LongJobState	See state .	4.0.0

#state

Name	Type	Description	Starting Version
name	String	The name of the long job.	4.0.0
ordinal	int		4.0.0

SDK Sample

Java SDK

```
BatchAddBareMetal2IpmiChassisAction action = new BatchAddBareMetal2Ip
miChassisAction();
action.chassisInfo = "FILE CONTENT ENCODE BY BASE64";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
BatchAddBareMetal2IpmiChassisAction.Result res = action.call();
```

Python SDK

```
BatchAddBareMetal2IpmiChassisAction action = BatchAddBareMetal2Ip
miChassisAction()
action.chassisInfo = "FILE CONTENT ENCODE BY BASE64"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
BatchAddBareMetal2IpmiChassisAction.Result res = action.call()
```

5.7.21 UpdateBareMetal2IpmiChassis

API Request

URLs

```
PUT zstack/v1/baremetal2/chassis/ipmi/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBareMetal2IpmiChassis": {
    "ipmiAddress": "192.168.0.10",
    "ipmiPort": 623.0,
    "ipmiUsername": "username",
    "ipmiPassword": "password",
    "name": "NEW_BM_CHASSIS",
    "description": "This is a new bare metal chassis."
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBareMetal2IpmiChassis":
{"ipmiAddress":"192.168.0.10","ipmiPort":623.0,\
"ipmiUsername":"username","ipmiPassword":"password","name":"NEW_BM_CHASSIS","desco
is a new bare metal chassis."}}' http://localhost:8080/zstack/v1/
baremetal2/chassis/ipmi/3f2b98a171ba35b88e3c1fc2f4dffdc2a/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
ipmiAddress	String	body(contained in the updateBare	Optional. The IPMI address.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		Metal2Ipmi Chassis structure)			
ipmiPort	Integer	body(contained in the updateBare Metal2Ipmi Chassis structure)	Optional. The IPMI port.		4.0.0
ipmiUsername	String	body(contained in the updateBare Metal2Ipmi Chassis structure)	The IPMI username.		4.0.0
ipmiPassword	String	body(contained in the updateBare Metal2Ipmi Chassis structure)	The IPMI password.		4.0.0
uuid	String	body(contained in the updateBare Metal2Ipmi Chassis structure)	The UUID of the bare metal chassis.		4.0.0
name	String	body(contained in the updateBare Metal2Ipmi Chassis structure)	Optional. The name of the bare metal chassis.		4.0.0
description	String	body(contained in the updateBare Metal2Ipmi	Optional. The detailed description of the bare metal chassis.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		Chassis structure)			
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "96fe737e7de04a2e81e76e836660d901",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "zoneUuid": "8aa20b5003db4b33820fa3fc7cdea3f1",
    "clusterUuid": "40838c67c1f143d9aa4c66280b0cbd71",
    "chassisOfferingUuid": "042acb57ad7e4f029a4dfda42970e7cf",
    "type": "IPMI",
    "state": "Enabled",
    "status": "Available",
    "powerStatus": "POWER_ON",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ChassisInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	4.0.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis.	4.0.0
name	String	The name of the bare metal chassis.	4.0.0
description	String	The detailed description of the bare metal chassis.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
type	String	The type of the protocol used to control bare metal chassis and instances.	4.0.0

Name	Type	Description	Starting Version
state	String	The state of the chassis.	4.0.0
status	String	The distribution status of the chassis.	4.0.0
powerStatus	String	The power status of the chassis.	4.0.0
createDate	Timestamp	The time when the chassis was added to the cluster.	4.0.0
lastOpDate	Timestamp	The time when the chassis was last modified.	4.0.0
chassisNics	List	See chassisNics .	4.0.0
chassisDisks	List	See chassisDisks .	4.0.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering .	4.0.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.0.0
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
mac	String	The MAC address of the chassis NIC.	4.0.0
speed	String	The data rate of the chassis NIC.	4.0.0
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.0.0
chassisUuid	String	The chassis UUID.	4.0.0
diskSize	Long	The size of the disk storage space, in bytes.	4.0.0
type	String	The type of the disk.	4.0.0
createDate	Timestamp	The time when the disk was created.	4.0.0
lastOpDate	Timestamp	The time when the disk was last modified.	4.0.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
UpdateBareMetal2IpmiChassisAction action = new UpdateBareMetal2IpmiChassisAction();
action.ipmiAddress = "192.168.0.10";
action.ipmiPort = 623.0;
action.ipmiUsername = "username";
action.ipmiPassword = "password";
action.uuid = "3f2b98a171ba35b88e3c1fc2f4dffdca";
action.name = "NEW_BM_CHASSIS";
action.description = "This is a new bare metal chassis.";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateBareMetal2IpmiChassisAction.Result res = action.call();
```

Python SDK

```
UpdateBareMetal2IpmiChassisAction action = UpdateBareMetal2IpmiChassisAction()
action.ipmiAddress = "192.168.0.10"
action.ipmiPort = 623.0
action.ipmiUsername = "username"
action.ipmiPassword = "password"
action.uuid = "3f2b98a171ba35b88e3c1fc2f4dffdca"
action.name = "NEW_BM_CHASSIS"
action.description = "This is a new bare metal chassis."
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateBareMetal2IpmiChassisAction.Result res = action.call()
```

5.7.22 CheckBareMetal2IpmiChassisConfigFile

API Request

URLs

```
POST zstack/v1/baremetal2/chassis/ipmi/from-file/check
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "chassisInfo": "FILE CONTENT ENCODE BY BASE64"
  },
}
```

```
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"chassisInfo":"FILE CONTENT ENCODE BY
BASE64"}}' http://localhost:8080/zstack/v1/baremetal2/chassis/ipmi/
from-file/check
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
chassisInfo	String	body(contained in the params structure)	The base64 -encoded configuration file of bare metal chassis.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
CheckBareMetal2IpmiChassisConfigFileAction action = new CheckBareMetal2IpmiChassisConfigFileAction();
action.chassisInfo = "FILE CONTENT ENCODE BY BASE64";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckBareMetal2IpmiChassisConfigFileAction.Result res = action.call();
```

Python SDK

```
CheckBareMetal2IpmiChassisConfigFileAction action = CheckBareMetal2IpmiChassisConfigFileAction()
action.chassisInfo = "FILE CONTENT ENCODE BY BASE64"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CheckBareMetal2IpmiChassisConfigFileAction.Result res = action.call()
```

5.7.23 CreateBareMetal2IpmiChassisHardwareInfo

API Request

URLs

```
POST zstack/v1/baremetal2/chassis/ipmi/hardwareinfos
```

Body

```
{
  "params": {
    "ipmiAddress": "192.168.0.10",
    "ipmiPort": 623.0,
    "hardwareInfo": "{\u0027architecture\u0027:\u0027x86_64\u0027,\u0027cpuModelName\u0027:\u0027Intel i7-6700K\u0027,\u0027cpuNum\u0027:\u00272\u0027,\u0027memorySize\u0027:\u002733421254656\u0027,\u0027nics\u0027:[{\u0027nicMac\u0027:\u00278d:5c:f7:8d:61\u0027,\u0027nicSpeed\u0027:\u00271000Mbps\u0027,\u0027isProvisionNic\u0027:\u0027true\u0027}]]}"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":
{"ipmiAddress":"192.168.0.10","ipmiPort":623.0,"hardwareInfo":{"architecture':'x
'cpuModelName':'Intel i7-6700K', 'cpuNum':'8',
'memorySize':'33421254656','nics':[{ 'nicMac':'40:8d:5c:f7:8d:61',
'nicSpeed':'1000Mbps', 'isProvisionNic':'true'}]}}}' http://
localhost:8080/zstack/v1/baremetal2/chassis/ipmi/hardwareinfos
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
ipmiAddress	String	body(contained in the params structure)	The IPMI address.		4.0.0
ipmiPort	Integer	body(contained in the params structure)	The IPMI port.		4.0.0
hardwareInfo	String	body(contained in the params structure)	The hardware information.		4.0.0
convertInfo (Optional)	String	body(contained in the params structure)	The converted information.		4.3.12
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
CreateBareMetal2IpmiChassisHardwareInfoAction action = new CreateBareMetal2IpmiChassisHardwareInfoAction();
action.ipmiAddress = "192.168.0.10";
action.ipmiPort = 623.0;
action.hardwareInfo = "{ 'architecture': 'x86_64', 'cpuModelName': 'Intel i7-6700K', 'cpuNum': '8', 'memorySize': '33421254656', 'nics': [{ 'nicMac': '40:8d:5c:f7:8d:61', 'nicSpeed': '1000Mbps', 'isProvisionNic': 'true' }] }";
CreateBareMetal2IpmiChassisHardwareInfoAction.Result res = action.call();
```

Python SDK

```
CreateBareMetal2IpmiChassisHardwareInfoAction action = CreateBareMetal2IpmiChassisHardwareInfoAction()
action.ipmiAddress = "192.168.0.10"
action.ipmiPort = 623.0
action.hardwareInfo = "{ 'architecture': 'x86_64', 'cpuModelName': 'Intel i7-6700K', 'cpuNum': '8', 'memorySize': '33421254656', 'nics': [{ 'nicMac': '40:8d:5c:f7:8d:61', 'nicSpeed': '1000Mbps', 'isProvisionNic': 'true' }] }"
CreateBareMetal2IpmiChassisHardwareInfoAction.Result res = action.call()
```

5.7.24 UpdateBareMetal2ChassisOffering

API Request

URLs

```
PUT zstack/v1/baremetal2/chassis/offerings/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBareMetal2ChassisOffering": {
    "name": "new-offering-name",
    "description": "new-offering-description"
  },
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBareMetal2ChassisOffering":{"name":"new-offering-name","description":"new-offering-description"}}'
http://localhost:8080/zstack/v1/baremetal2/chassis/offerings/530ce92eb98a345ba74cc0f7fae932aa/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the bare metal chassis offering.		4.0.0
name	String	body(contained in the updateBareMetal2ChassisOffering structure)	Optional. The name of the bare metal chassis offering.		4.0.0
description	String	body(contained in the updateBareMetal2ChassisOffering structure)	Optional. The detailed description of the bare metal chassis offering.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "4f1b206549984f77a170a776ed62dd52",
    "name": "BM-8C-8G",
    "description": "This is bare metal instance offering.",
    "architecture": "x86_64",
    "cpuModelName": "Intel(R) Core(TM) i7-6700K CPU @ 4.00GHz",
    "cpuNum": 8.0,
    "memorySize": 8.589934592E9,
    "bootMode": "UEFI",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ChassisOfferingInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
UpdateBareMetal2ChassisOfferingAction action = new UpdateBareMetal2ChassisOfferingAction();
action.uuid = "530ce92eb98a345ba74cc0f7fae932aa";
action.name = "new-offering-name";
action.description = "new-offering-description";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateBareMetal2ChassisOfferingAction.Result res = action.call();
```

Python SDK

```
UpdateBareMetal2ChassisOfferingAction action = UpdateBareMetal2ChassisOfferingAction()
action.uuid = "530ce92eb98a345ba74cc0f7fae932aa"
action.name = "new-offering-name"
action.description = "new-offering-description"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateBareMetal2ChassisOfferingAction.Result res = action.call()
```

5.7.25 QueryBareMetal2ChassisOffering

API Request

URLs

```
GET zstack/v1/baremetal2/chassis/offerings
```

```
GET zstack/v1/baremetal2/chassis/offerings/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis/offerings?
q=uuid=20cc19e5bbcd3a4b882dc31a82524944
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/chassis/
offerings/747272874a1039579de13fba1b230645
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryBareMetal2ChassisOffering`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "f64db447a42a4673a5b2a6aa6476725e",
      "name": "BM-8C-8G",
      "description": "This is bare metal instance offering.",
      "architecture": "x86_64",
      "cpuModelName": "Intel(R) Core(TM) i7-6700K CPU @ 4.00GHz",
      "cpuNum": 8.0,
      "memorySize": 8.589934592E9,
      "bootMode": "UEFI",
      "state": "Enabled",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	See inventories .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0
name	String	The name of the chassis offering.	4.0.0
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
QueryBareMetal2ChassisOfferingAction action = new QueryBareMetal2ChassisOfferingAction();
action.conditions = asList("uuid=34a1289f0165376aae6782a7c37460b3");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBareMetal2ChassisOfferingAction.Result res = action.call();
```

Python SDK

```
QueryBareMetal2ChassisOfferingAction action = QueryBareMetal2ChassisOfferingAction()
action.conditions = ["uuid=38acdcf9fd6339bcb04a94ef9bc5b95c"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBareMetal2ChassisOfferingAction.Result res = action.call()
```

5.7.26 ChangeBareMetal2ChassisOfferingState

API Request

URLs

```
PUT zstack/v1/baremetal2/chassis/offerings/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeBareMetal2ChassisOfferingState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"changeBareMetal2ChassisOfferingState":
{"stateEvent":"enable"}}' http://localhost:8080/zstack/v1/baremetal2/
chassis/offerings/bb6d3f5ef72d3051aaff974b442a0cbf/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The chassis offering UUID.		4.0.0
stateEvent	String	body(contained in the changeBareMetal2ChassisOfferingState structure)	The event that changes the state of the chassis offering.	- enable - disable	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "8020c6ab0e4346df8146d922a5319c2c",
    "name": "BM-8C-8G",
    "description": "This is bare metal instance offering.",
    "architecture": "x86_64",
    "cpuModelName": "Intel(R) Core(TM) i7-6700K CPU @ 4.00GHz",
    "cpuNum": 8.0,
    "memorySize": 8.589934592E9,
    "bootMode": "UEFI",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.0.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	BareMetal2ChassisOfferingInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.0.0
name	String	The name of the chassis offering.	4.0.0

Name	Type	Description	Starting Version
description	String	The detailed description of the chassis offering.	4.0.0
architecture	String	The CPU architecture.	4.0.0
cpuModelName	String	The CPU model name.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
memorySize	Long	The memory size.	4.0.0
bootMode	String	The boot mode.	4.0.0
state	String	The state of the chassis offering.	4.0.0
createDate	Timestamp	The time when the chassis offering was created.	4.0.0
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.0.0

SDK Sample

Java SDK

```
ChangeBareMetal2ChassisOfferingStateAction action = new ChangeBareMetal2ChassisOfferingStateAction();
action.uuid = "bb6d3f5ef72d3051aaff974b442a0cbf";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeBareMetal2ChassisOfferingStateAction.Result res = action.call();
```

Python SDK

```
ChangeBareMetal2ChassisOfferingStateAction action = ChangeBareMetal2ChassisOfferingStateAction()
action.uuid = "bb6d3f5ef72d3051aaff974b442a0cbf"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeBareMetal2ChassisOfferingStateAction.Result res = action.call()
```

5.7.27 AddBareMetal2Gateway

API Request

URLs

```
POST zstack/v1/baremetal2/gateways
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "username": "userName",
    "password": "password",
    "sshPort": 22.0,
    "name": "gateway",
    "managementIp": "127.0.0.1",
    "clusterUuid": "5b08798053343ec686244dc3a36bbccf"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"username":"userName","password":"password","sshPort":22.0,"name":"gateway","man
http://localhost:8080/zstack/v1/baremetal2/gateways
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
username	String	body(contained in the params structure)	The username of the gateway.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
password	String	body(contained in the params structure)	The password of the gateway .		4.0.0
sshPort	int	body(contained in the params structure)	Optional. The SSH port of the gateway.		4.0.0
name	String	body(contained in the params structure)	The name of the gateway.		4.0.0
description	String	body(contained in the params structure)	Optional. The detailed description of the gateway.		4.0.0
management Ip	String	body(contained in the params structure)	The IP address of the management node.		4.0.0
clusterUuid	String	body(contained in the params structure)	The cluster UUID.		4.0.0
resourceUuid	String	body(contained in the params structure)	Optional. The UUID of the gateway.		4.0.0
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "zoneUuid": "24b761ab09f7349684387fdf822aaee7",
```

```

"name": "example",
"uuid": "f893fe1c941939738a0ec271880d8e53",
"clusterUuid": "4191157f33ab34d0a55b8e30444a1367",
"description": "example",
"managementIp": "192.168.0.1",
"hypervisorType": "KVM",
"state": "Enabled",
"status": "Connected",
"totalCpuCapacity": 4.0,
"availableCpuCapacity": 2.0,
"totalMemoryCapacity": 4.0,
"availableMemoryCapacity": 4.0
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ChassisOff eringInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current	4.0.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the gateway.	4.0.0
uuid	String	The UUID of the gateway.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
description	String	The detailed description of the gateway.	4.0.0
managementIp	String		4.0.0
hypervisorType	String		4.0.0
state	String		4.0.0
status	String		4.0.0
totalCpuCapacity	Long		4.0.0
availableCpuCapacity	Long		4.0.0
totalMemoryCapacity	Long		4.0.0
availableMemoryCapacity	Long		4.0.0
createDate	Timestamp	The time when the gateway was added.	4.0.0
lastOpDate	Timestamp	The time when the gateway was last modified.	4.0.0

SDK Sample

Java SDK

```
AddBareMetal2GatewayAction action = new AddBareMetal2GatewayAction();
action.username = "userName";
action.password = "password";
```

```

action.sshPort = 22.0;
action.name = "gateway";
action.managementIp = "127.0.0.1";
action.clusterUuid = "5b08798053343ec686244dc3a36bbccf";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddBareMetal2GatewayAction.Result res = action.call();

```

Python SDK

```

AddBareMetal2GatewayAction action = AddBareMetal2GatewayAction()
action.username = "userName"
action.password = "password"
action.sshPort = 22.0
action.name = "gateway"
action.managementIp = "127.0.0.1"
action.clusterUuid = "5b08798053343ec686244dc3a36bbccf"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddBareMetal2GatewayAction.Result res = action.call()

```

5.7.28 DeleteBareMetal2Gateway

API Request

URLs

```
DELETE zstack/v1/baremetal2/gateways/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/baremetal2/gateways/
f34f2a3179ae362eb5c01ae22581d2ac

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the gateway.		4.0.0
deleteMode	String	body	Optional. The deletion mode.	- Permissive - Enforcing	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteBareMetal2GatewayAction action = new DeleteBareMetal2GatewayAction();
action.uuid = "f34f2a3179ae362eb5c01ae22581d2ac";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteBareMetal2GatewayAction.Result res = action.call();
```

Python SDK

```
DeleteBareMetal2GatewayAction action = DeleteBareMetal2GatewayAction()
action.uuid = "f34f2a3179ae362eb5c01ae22581d2ac"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
DeleteBareMetal2GatewayAction.Result res = action.call()
```

5.7.29 UpdateBareMetal2Gateway

API Request

URLs

```
PUT zstack/v1/baremetal2/gateways/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBareMetal2Gateway": {
    "sshPort": 22.0,
    "password": "password",
    "name": "NEW_BM_GATEWAY",
    "description": "This is a new bare metal gateway.",
    "managementIp": "192.168.0.10"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBareMetal2Gateway":
{"sshPort":22.0,"password":"password","name":"NEW_BM_GATEWAY","description":"This
is a new bare metal gateway.","managementIp":"192.168.0.10"}}'
http://localhost:8080/zstack/v1/baremetal2/gateways/
bb000d56b8143341a57a76b7344b9b65/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
sshPort	Integer	body(contained in the updateBare	Optional. The SSH port.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		Metal2Gateway structure)			
username	String	body(contained in the updateBareMetal2Gateway structure)	Optional. The username of the gateway.		4.0.0
password	String	body(contained in the updateBareMetal2Gateway structure)	Optional. The password of the gateway.		4.0.0
uuid	String	url	The gateway UUID.		4.0.0
name	String	body(contained in the updateBareMetal2Gateway structure)	Optional. The name of the gateway.		4.0.0
description	String	body(contained in the updateBareMetal2Gateway structure)	Optional. The detailed description of the gateway.		4.0.0
management Ip	String	body(contained in the updateBareMetal2Gateway structure)	Optional. The IP address of the management node.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "username": "username",
    "password": "password",
    "sshPort": 22.0,
    "zoneUuid": "e5337859dc214ce49ce31acea22a3bab",
    "name": "BM_GATEWAY",
    "uuid": "ce1634f0ff72403fbb457b1630420096",
    "description": "This is a bare metal gateway.",
    "managementIp": "192.168.0.10",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2 GatewayInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUIDs.	4.0.0
username	String	The username of the gateway.	4.0.0
sshPort	Integer	The SSH port.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the gateway.	4.0.0
uuid	String	The UUID of the gateway.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
description	String	The detailed description of the gateway.	4.0.0
managementIp	String	The IP address of the management node.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
state	String	The state of the gateway.	4.0.0
status	String	The connection status of the gateway.	4.0.0
totalCpuCapacity	Long	The total processing capacity of CPU.	4.0.0

Name	Type	Description	Starting Version
availableCpuCapacity	Long	The available processing capacity of CPU.	4.0.0
cpuSockets	Integer		4.0.0
totalMemoryCapacity	Long	The total memory size.	4.0.0
availableMemoryCapacity	Long	The available memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
createDate	Timestamp	The time when the gateway was created.	4.0.0
lastOpDate	Timestamp	The time when the gateway was last modified.	4.0.0
provisionNic	BareMetal2 GatewayProvisionNicInventory	See provisionNic .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
interfaceName	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

SDK Sample

Java SDK

```
UpdateBareMetal2GatewayAction action = new UpdateBareMetal2GatewayAction();
action.sshPort = 22.0;
action.password = "password";
action.uuid = "bb000d56b8143341a57a76b7344b9b65";
action.name = "NEW_BM_GATEWAY";
action.description = "This is a new bare metal gateway.";
action.managementIp = "192.168.0.10";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateBareMetal2GatewayAction.Result res = action.call();
```

Python SDK

```
UpdateBareMetal2GatewayAction action = UpdateBareMetal2GatewayAction()
action.sshPort = 22.0
action.password = "password"
action.uuid = "bb000d56b8143341a57a76b7344b9b65"
action.name = "NEW_BM_GATEWAY"
action.description = "This is a new bare metal gateway."
action.managementIp = "192.168.0.10"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateBareMetal2GatewayAction.Result res = action.call()
```

5.7.30 QueryBareMetal2Gateway

API Request

URLs

```
GET zstack/v1/baremetal2/gateways
```

```
GET zstack/v1/baremetal2/gateways/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/gateways/48735292c5113181bcc27dddbfc123fd
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/gateways?q=uuid=317ac820ec8b35d4acf701b7333a4fcc
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryBareMetal2Gateway`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "username": "username",
      "password": "password",
      "sshPort": 22.0,
      "zoneUuid": "d5e6f16bbbab4c1e8c71a0ad108837d9",
      "name": "BM_GATEWAY",
      "uuid": "19b634f736574b7c93ff89c8741714d7",
      "description": "This is a bare metal gateway.",
      "managementIp": "192.168.0.10",
      "state": "Enabled",
      "status": "Connected",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventories

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUIDs.	4.0.0
username	String	The username of the gateway.	4.0.0
sshPort	Integer	The SSH port.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the gateway.	4.0.0
uuid	String	The UUID of the gateway.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
description	String	The detailed description of the gateway.	4.0.0
managementIp	String	The IP address of the management node.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
state	String	The state of the gateway.	4.0.0
status	String	The connection status of the gateway.	4.0.0

Name	Type	Description	Starting Version
totalCpuCapacity	Long	The total processing capacity of CPU.	4.0.0
availableCpuCapacity	Long	The available processing capacity of CPU.	4.0.0
cpuSockets	Integer		4.0.0
totalMemoryCapacity	Long	The total memory size.	4.0.0
availableMemoryCapacity	Long	The available memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
createDate	Timestamp	The time when the gateway was created.	4.0.0
lastOpDate	Timestamp	The time when the gateway was last modified.	4.0.0
provisionNic	BareMetal2 GatewayProvisionNicInventory	See provisionNic .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
interfaceName	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

SDK Sample

Java SDK

```
QueryBareMetal2GatewayAction action = new QueryBareMetal2GatewayAction();
action.conditions = asList("uuid=089cc9f73e31367c8d3db89f736957b2");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBareMetal2GatewayAction.Result res = action.call();
```

Python SDK

```
QueryBareMetal2GatewayAction action = QueryBareMetal2GatewayAction()
action.conditions = ["uuid=88779d1fce2138c28744a2ed1265df1d"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBareMetal2GatewayAction.Result res = action.call()
```

5.7.31 ChangeBareMetal2GatewayState

API Request

URLs

```
PUT zstack/v1/baremetal2/gateways/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeBareMetal2GatewayState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeBareMetal2GatewayState":{"stateEvent":"enable"}}'
http://localhost:8080/zstack/v1/baremetal2/
gateways/45e9cf4edc7638eaad0ef5e2ca03a911/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the gateway.		4.0.0
stateEvent	String	body(contained in the changeBareMetal2GatewayState structure)	The event that changes the state of the chassis.	- enable - disable	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "username": "username",
    "password": "password",
    "sshPort": 22.0,
    "zoneUuid": "f7ee69031623443a82c3d1ad14e17216",
    "name": "BM_GATEWAY",
    "uuid": "3827d83852794e138019088f4e9e2371",
    "description": "This is a bare metal gateway.",
    "managementIp": "192.168.0.10",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2 GatewayInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUIDs.	4.0.0

Name	Type	Description	Starting Version
username	String	The username of the gateway.	4.0.0
sshPort	Integer	The SSH port.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the gateway.	4.0.0
uuid	String	The UUID of the gateway.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
description	String	The detailed description of the gateway.	4.0.0
managementIp	String	The IP address of the management node.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
state	String	The state of the gateway.	4.0.0
status	String	The connection status of the gateway.	4.0.0
totalCpuCapacity	Long	The total processing capacity of CPU.	4.0.0
availableCpuCapacity	Long	The available processing capacity of CPU.	4.0.0
cpuSockets	Integer		4.0.0
totalMemoryCapacity	Long	The total memory size.	4.0.0
availableMemoryCapacity	Long	The available memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
createDate	Timestamp	The time when the gateway was created.	4.0.0
lastOpDate	Timestamp	The time when the gateway was last modified.	4.0.0

Name	Type	Description	Starting Version
provisionNic	BareMetal2 GatewayProvisionNicInventory	See provisionNic .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
interfaceName	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

SDK Sample

Java SDK

```
ChangeBareMetal2GatewayStateAction action = new ChangeBareMetal2GatewayStateAction();
action.uuid = "45e9cf4edc7638eaaad0ef5e2ca03a911";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeBareMetal2GatewayStateAction.Result res = action.call();
```

Python SDK

```
ChangeBareMetal2GatewayStateAction action = ChangeBareMetal2GatewayStateAction()
action.uuid = "45e9cf4edc7638eaaad0ef5e2ca03a911"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeBareMetal2GatewayStateAction.Result res = action.call()
```

5.7.32 ReconnectBareMetal2Gateway

API Request

URLs

```
PUT zstack/v1/baremetal2/gateways/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectBareMetal2Gateway": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectBareMetal2Gateway":{}}'
http://localhost:8080/zstack/v1/baremetal2/
gateways/42194e64d56e3e0cb3d6343429ac9fc1/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the gateway.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "username": "username",
    "password": "password",
    "sshPort": 22.0,
    "zoneUuid": "dba32ea5c90f4944b38668f502050ab0",
    "name": "BM_GATEWAY",
    "uuid": "34d1f5a0920843279738a58c6251ff92",
    "description": "This is a bare metal gateway.",
    "managementIp": "192.168.0.10",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2 GatewayInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUIDs.	4.0.0
username	String	The username of the gateway.	4.0.0
sshPort	Integer	The SSH port.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the gateway.	4.0.0
uuid	String	The UUID of the gateway.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
description	String	The detailed description of the gateway.	4.0.0
managementIp	String	The IP address of the management node.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
state	String	The state of the gateway.	4.0.0
status	String	The connection status of the gateway.	4.0.0
totalCpuCapacity	Long	The total processing capacity of CPU.	4.0.0

Name	Type	Description	Starting Version
availableCpuCapacity	Long	The available processing capacity of CPU.	4.0.0
cpuSockets	Integer		4.0.0
totalMemoryCapacity	Long	The total memory size.	4.0.0
availableMemoryCapacity	Long	The available memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
createDate	Timestamp	The time when the gateway was created.	4.0.0
lastOpDate	Timestamp	The time when the gateway was last modified.	4.0.0
provisionNic	BareMetal2 GatewayProvisionNicInventory	See provisionNic .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
interfaceName	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

SDK Sample

Java SDK

```
ReconnectBareMetal2GatewayAction action = new ReconnectBareMetal2GatewayAction();
action.uuid = "42194e64d56e3e0cb3d6343429ac9fc1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ReconnectBareMetal2GatewayAction.Result res = action.call();
```

Python SDK

```
ReconnectBareMetal2GatewayAction action = ReconnectBareMetal2GatewayAction()
action.uuid = "42194e64d56e3e0cb3d6343429ac9fc1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ReconnectBareMetal2GatewayAction.Result res = action.call()
```

5.7.33 GetBareMetal2GatewayAllocatorStrategies

API Request

URLs

```
GET zstack/v1/baremetal2/gateways/allocators/strategies
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/gateways/allocators/strategies
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
userTags	List	query	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "gatewayAllocatorStrategies": [
    "DefaultGatewayAllocatorStrategy",
    "LastGatewayPreferredAllocatorStrategy",
    "LeastBmPreferredGatewayAllocatorStrategy"
  ]
}
```

Name	Type	Description	Starting Version
strategies	List	The polices of allocating gateways for bare metal instances.	4.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

SDK Sample

Java SDK

```
GetBareMetal2GatewayAllocatorStrategiesAction action = new GetBareMetal2GatewayAllocatorStrategiesAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetBareMetal2GatewayAllocatorStrategiesAction.Result res = action.call();
```

Python SDK

```
GetBareMetal2GatewayAllocatorStrategiesAction action = GetBareMetal2GatewayAllocatorStrategiesAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetBareMetal2GatewayAllocatorStrategiesAction.Result res = action.call()
```

5.7.34 AttachBareMetal2GatewayToCluster

API Request

URLs

```
POST zstack/v1/baremetal2/clusters/{clusterUuid}/gateways/{gatewayUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/
v1/baremetal2/clusters/089e7fab17b7332b970fbfd9e4be1506/
gateways/1371ab1d5d8b3ba59e3fec417a0f2650
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
clusterUuid	String	url	The cluster UUID.		4.0.0
gatewayUuid	String	url	The gateway UUID.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response**Sample Response**

```
{
  "inventory": {
    "username": "username",
    "password": "password",
    "sshPort": 22.0,
    "zoneUuid": "27aafe8965d54cbcbfe96efb6f2d987b",
    "name": "BM_GATEWAY",
    "uuid": "2c28e0ba594b479fa4fd6ec29187a055",
    "description": "This is a bare metal gateway.",
    "managementIp": "192.168.0.10",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2 GatewayInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUIDs.	4.0.0

Name	Type	Description	Starting Version
username	String	The username of the gateway.	4.0.0
sshPort	Integer	The SSH port.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the gateway.	4.0.0
uuid	String	The UUID of the gateway.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
description	String	The detailed description of the gateway.	4.0.0
managementIp	String	The IP address of the management node.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
state	String	The state of the gateway.	4.0.0
status	String	The connection status of the gateway.	4.0.0
totalCpuCapacity	Long	The total processing capacity of CPU.	4.0.0
availableCpuCapacity	Long	The available processing capacity of CPU.	4.0.0
cpuSockets	Integer		4.0.0
totalMemoryCapacity	Long	The total memory size.	4.0.0
availableMemoryCapacity	Long	The available memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
createDate	Timestamp	The time when the gateway was created.	4.0.0
lastOpDate	Timestamp	The time when the gateway was last modified.	4.0.0

Name	Type	Description	Starting Version
provisionNic	BareMetal2 GatewayProvisionNicInventory	See provisionNic .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
interfaceName	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

SDK Sample

Java SDK

```
AttachBareMetal2GatewayToClusterAction action = new AttachBareMetal2GatewayToClusterAction();
action.clusterUuid = "089e7fab17b7332b970fbfd9e4be1506";
action.gatewayUuid = "1371ab1d5d8b3ba59e3fec417a0f2650";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachBareMetal2GatewayToClusterAction.Result res = action.call();
```

Python SDK

```
AttachBareMetal2GatewayToClusterAction action = AttachBareMetal2GatewayToClusterAction()
action.clusterUuid = "089e7fab17b7332b970fbfd9e4be1506"
action.gatewayUuid = "1371ab1d5d8b3ba59e3fec417a0f2650"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachBareMetal2GatewayToClusterAction.Result res = action.call()
```

5.7.35 DetachBareMetal2GatewayFromCluster

API Request

URLs

```
DELETE zstack/v1/baremetal2/clusters/{clusterUuid}/gateways/{gatewayUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
baremetal2/clusters/d2b8680d85ec3ffe9e25764059f74ef3/
gateways/2576cacdeef53f13963547db023b6679
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
clusterUuid	String	url	The cluster UUID.		4.0.0
gatewayUuid	String	url	The gateway UUID.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "username": "username",
    "password": "password",
    "sshPort": 22.0,
    "zoneUuid": "43aca62381ee4237a4cb59d164420ce6",
    "name": "BM_GATEWAY",
    "uuid": "3d93240bb6db464db7a8354b817b4ef8",
    "description": "This is a bare metal gateway.",
  }
}
```

```

    "managementIp": "192.168.0.10",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2 GatewayInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUIDs.	4.0.0
username	String	The username of the gateway.	4.0.0
sshPort	Integer	The SSH port.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the gateway.	4.0.0
uuid	String	The UUID of the gateway.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
description	String	The detailed description of the gateway.	4.0.0
managementIp	String	The IP address of the management node.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
state	String	The state of the gateway.	4.0.0
status	String	The connection status of the gateway.	4.0.0
totalCpuCapacity	Long	The total processing capacity of CPU.	4.0.0
availableCpuCapacity	Long	The available processing capacity of CPU.	4.0.0
cpuSockets	Integer		4.0.0
totalMemoryCapacity	Long	The total memory size.	4.0.0
availableMemoryCapacity	Long	The available memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
createDate	Timestamp	The time when the gateway was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the was gateway last modified.	4.0.0
provisionNic	BareMetal2 GatewayProvisionNicInventory	See provisionNic .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
interfaceName	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

SDK Sample

Java SDK

```
DetachBareMetal2GatewayFromClusterAction action = new DetachBareMetal2GatewayFromClusterAction();
action.clusterUuid = "d2b8680d85ec3ffe9e25764059f74ef3";
action.gatewayUuid = "2576cacdeef53f13963547db023b6679";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachBareMetal2GatewayFromClusterAction.Result res = action.call();
```

Python SDK

```
DetachBareMetal2GatewayFromClusterAction action = DetachBareMetal2GatewayFromClusterAction()
```

```

action.clusterUuid = "d2b8680d85ec3ffe9e25764059f74ef3"
action.gatewayUuid = "2576cacdeef53f13963547db023b6679"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachBareMetal2GatewayFromClusterAction.Result res = action.call()

```

5.7.36 ChangeBareMetal2GatewayCluster

API Request

URLs

```
PUT zstack/v1/baremetal2/gateways/{gatewayUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "changeBareMetal2GatewayCluster": {
    "clusterUuid": "4a25d17182513ddca1b0fb2b5d6ed6c9"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeBareMetal2GatewayCluster":
{"clusterUuid":"4a25d17182513ddca1b0fb2b5d6ed6c9"}}'
http://localhost:8080/zstack/v1/baremetal2/
gateways/43ec286e4b23393dba7bee8a6483b266/actions

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
gatewayUuid	String	url	The gateway UUID.		4.0.0
clusterUuid	String	body(contained in the changeBare	The cluster UUID.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		Metal2GatewayCluster structure)			
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "username": "username",
    "password": "password",
    "sshPort": 22.0,
    "zoneUuid": "13bed655774f4fbdaff916c205b34cc4",
    "name": "BM_GATEWAY",
    "uuid": "a557900a7fa945bdbf2135e4dd177580",
    "description": "This is a bare metal gateway.",
    "managementIp": "192.168.0.10",
    "state": "Enabled",
    "status": "Connected",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2 GatewayInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	4.0.0

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
attachedClusterUuids	List	The attached cluster UUIDs.	4.0.0
username	String	The username of the gateway.	4.0.0
sshPort	Integer	The SSH port.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the gateway.	4.0.0
uuid	String	The UUID of the gateway.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
description	String	The detailed description of the gateway.	4.0.0
managementIp	String	The IP address of the management node.	4.0.0

Name	Type	Description	Starting Version
hypervisorType	String	The virtualization type.	4.0.0
state	String	The state of the gateway.	4.0.0
status	String	The connection status of the gateway.	4.0.0
totalCpuCapacity	Long	The total processing capacity of CPU.	4.0.0
availableCpuCapacity	Long	The available processing capacity of CPU.	4.0.0
cpuSockets	Integer		4.0.0
totalMemoryCapacity	Long	The total memory size.	4.0.0
availableMemoryCapacity	Long	The available memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
createDate	Timestamp	The time when the gateway was created.	4.0.0
lastOpDate	Timestamp	The time when the gateway was last modified.	4.0.0
provisionNic	BareMetal2 GatewayProvisionNicInventory	See provisionNic .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The NIC UUID.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
interfaceName	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0

Name	Type	Description	Starting Version
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

SDK Sample

Java SDK

```
ChangeBareMetal2GatewayClusterAction action = new ChangeBareMetal2GatewayClusterAction();
action.gatewayUuid = "43ec286e4b23393dba7bee8a6483b266";
action.clusterUuid = "4a25d17182513ddca1b0fb2b5d6ed6c9";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeBareMetal2GatewayClusterAction.Result res = action.call();
```

Python SDK

```
ChangeBareMetal2GatewayClusterAction action = ChangeBareMetal2GatewayClusterAction()
action.gatewayUuid = "43ec286e4b23393dba7bee8a6483b266"
action.clusterUuid = "4a25d17182513ddca1b0fb2b5d6ed6c9"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeBareMetal2GatewayClusterAction.Result res = action.call()
```

5.7.37 CreateBareMetal2Instance

API Request

URLs

```
POST zstack/v1/baremetal2/bm-instances
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "BM",
```

```

    "description": "This is a bare metal instance",
    "clusterUuid": "d42170a418c3371f82ac5f21d10feff4",
    "chassisOfferingUuid": "b759701ddf47367eb55efea665eb3bd8",
    "imageUuid": "529c9474896035f8bb8aa806bec5c28b"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edfb53ca0678c" \
-X POST -d '{"params":{"name":"BM","description":"This is a bare metal instance",\
"clusterUuid":"d42170a418c3371f82ac5f21d10feff4","chassisOfferingUuid":"b759701dd
http://localhost:8080/zstack/v1/baremetal2/bm-instances

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body(contained in the params structure)	The bare metal instance name.		4.0.0
description	String	body(contained in the params structure)	Optional. The detailed description of the bare metal instance.		4.0.0
zoneUuid	String	body(contained in the params structure)	Optional. The zone UUID.		4.0.0
clusterUuid	String	body(contained in the params structure)	Optional. The cluster UUID.		4.0.0
gatewayUuid	String	body(contained in the params structure)	Optional. The gateway UUID.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
chassisUuid	String	body(contained in the params structure)	Optional. The bare metal chassis UUID.		4.0.0
chassisOfferingUuid	String	body(contained in the params structure)	Optional. The chassis offering UUID.		4.0.0
imageUuid	String	body(contained in the params structure)	Optional. The image UUID.		4.3.12
primaryStorageUuidForRootVolume	String	body(contained in the params structure)	Optional. The UUID of the primary storage where the root volume resides.		4.0.0
primaryStorageUuidForDataVolume	String	body(contained in the params structure)	Optional. The UUID of the primary storage where data volumes resides.		4.0.0
dataDiskOfferingUuids	List	body(contained in the params structure)	Optional. The data volume offering UUID.		4.0.0
rootVolumeSystemTags	List	body(contained in the params structure)	Optional. The root volume offering UUID.		4.0.0
dataVolumeSystemTags	List	body(contained in the params structure)	Optional. The system tags of data volumes.		4.0.0
gatewayAllocatorStrategy	String	body(contained in the params structure)	Optional. The gateway allocation policy.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
chassisDiskUuid	String	body(contained in the params structure)	Optional, The UUID of the local disk.		4.3.12
resourceUuid	String	body(contained in the params structure)	Optional. The bare metal instance UUID.		4.0.0
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "chassisUuid": "abdb84a7186446828d679ca390400804",
    "lastChassisUuid": "2e16e29ad4d94a348d3f633358792ebe",
    "gatewayUuid": "8a2a62c0d26f46af9b835515ca26cf79",
    "lastGatewayUuid": "bc627e89139043e292aea1d691740f58",
    "chassisOfferingUuid": "b943087d48644fe7a9165d447b1197e6",
    "status": "Connected",
    "provisionType": "Remote",
    "uuid": "870fde072c314db49fb6c91ca6f893f6",
    "name": "BM-1",
    "description": "This is a BareMetal2 Instance.",
    "zoneUuid": "66bbd29bcd8d4313816dc6ed26e86c97",
    "clusterUuid": "f3b09f2ac776470bb0710db497e13b6c",
    "imageUuid": "1d499497394e443ba4d5f502d42ffff1",
    "rootVolumeUuid": "f88731c18e58481e8d7c98158e8b2948",
    "platform": "Linux",
    "type": "baremetal2",
    "memorySize": 8.589934592E9,
    "cpuNum": 8.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2InstanceInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0

Name	Type	Description	Starting Version
lastChassisUuid	String	The UUID of the bare metal chassis where the instance last resides.	4.0.0
gatewayUuid	String	The gateway UUID.	4.0.0
lastGatewayUuid	String	The UUID of the last gateway.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
gatewayAllocatorStrategy	String	The gateway allocation policy.	4.0.0
status	String	The connection status of the bare metal instance.	4.0.0
uuid	String	The UUID of the bare metal instance.	4.0.0
name	String	The bare metal instance name.	4.0.0
description	String	The detailed description of the bare metal instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
rootVolumeUuid	String	The root volume UUID	4.0.0
platform	String	The platform type.	4.0.0
defaultL3NetworkUuid	String	The UUID of the default L3 network.	4.0.0
type	String	The type of the bare metal instance.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
memorySize	Long	The memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0

Name	Type	Description	Starting Version
cpuSpeed	Long	The processing speed of the CPU.	4.0.0
createDate	Timestamp	The time when the bare metal instance was created.	4.0.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	4.0.0
state	String	The state of the bare metal instance.	4.0.0
provisionNic	BareMetal2InstanceProvisionNicInventory	See provisionNic .	4.0.0
vmNics	List	See vmNics .	4.0.0
allVolumes	List	See allVolumes .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC that is in the deployment network.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
mac	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	4.0.0
vmInstanceUuid	String	The UUID of the VM instance.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The version of the IP address.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps .	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the IP address.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0

Name	Type	Description	Starting Version
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask of the IP address.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was created.	4.0.0
lastOpDate	Timestamp	The time when the IP address was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume.	4.0.0

Name	Type	Description	Starting Version
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

- When you create an elastic baremetal instance from a local disk (non take-over) baremetal node on ZStack Cloud, , you can specify a disk to write system data by adding the **systemDisk** option to **SystemTags**.
 - Format: `systemDisk::WWN`
 - Example: `systemDisk::0x5000c500d490b3d0`

SDK Sample

Java SDK

```
CreateBareMetal2IpmiChassisHardwareInfoAction action = new CreateBareMetal2IpmiChassisHardwareInfoAction();
action.ipmiAddress = "192.168.0.10";
action.ipmiPort = 623.0;
action.hardwareInfo = "{ 'architecture': 'x86_64', 'cpuModelName': 'Intel i7-6700K', 'cpuNum': '8', 'memorySize': '33421254656', 'nics': [{ 'nicMac
```

```
'::40:8d:5c:f7:8d:61', 'nicSpeed':'1000Mbps', 'isProvisionNic':'true
'}]]}";
CreateBareMetal2IpmiChassisHardwareInfoAction.Result res = action.call
();
```

Python SDK

```
CreateBareMetal2IpmiChassisHardwareInfoAction action = CreateBare
Metal2IpmiChassisHardwareInfoAction()
action.ipmiAddress = "192.168.0.10"
action.ipmiPort = 623.0
action.hardwareInfo = "{ 'architecture':'x86_64', 'cpuModelName':'Intel
i7-6700K', 'cpuNum':'8', 'memorySize':'33421254656', 'nics':[{ 'nicMac
':'40:8d:5c:f7:8d:61', 'nicSpeed':'1000Mbps', 'isProvisionNic':'true
'}]]}"
CreateBareMetal2IpmiChassisHardwareInfoAction.Result res = action.call
()
```

5.7.38 UpdateBareMetal2Instance

API Request

URLs

```
PUT /v1/baremetal2/bm-instances/{uuid}/action
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBareMetal2Instance": {
    "name": "new-bm2-instance-name",
    "description": "new-bm2-instance-description",
    "state": "Running",
    "chassisOfferingUuid": "75f357e1c7d931f8977c44cf6e472088",
    "defaultL3NetworkUuid": "93b3ad570c9238568da83b838e41b944",
    "autoReleaseChassisEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"updateBareMetal2Instance":{"name":"new-bm2-instance-name","description":"new-bm2-instance-description","state":"Running","chassisOfferingUuid":"75f357e1c7d931f8977c44cf6e4http://localhost:8080/zstack/v1/baremetal2/bm-instances/fe3ee28c03793c57b64c5cc76e096566/action'}
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The bare metal instance UUID.		4.0.0
name	String	body(contained in the updateBareMetal2Instance structure)	Optional. The bare metal instance name.		4.0.0
description	String	body(contained in the updateBareMetal2Instance structure)	Optional. The detailed description of the bare metal instance.		4.0.0
state		body(contained in the updateBareMetal2Instance structure)	Optional. The running state of the bare metal instance.	- Stopped - Running	
chassisOfferingUuid	String	body(contained in the updateBareMetal2Instance structure)	Optional. The chassis offering UUID.		4.0.0
defaultL3NetworkUuid	String	body(contained in the updateBareMetal2Instance structure)	Optional. The default L3 network UUID.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		ance structure)			
autoReleaseChassisEvent	String	body(contained in the updateBareMetal2Instance structure)	Optional. Specifies whether to enable auto-release of the bare metal chassis if the bare metal instance is powered off.	- enable - disable	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "chassisUuid": "7453e747768542489c23050886938b77",
    "lastChassisUuid": "b39799cc4126488aa17814ea424a3dd7",
    "gatewayUuid": "196bf822c5e349adabf8794d9cb5e75c",
    "lastGatewayUuid": "350145e2738d44e9a5167eeb478cae00",
    "chassisOfferingUuid": "2d45764c371d49f48431f018618eb10b",
    "status": "Connected",
    "uuid": "d9fe21f56dfb414494d1b09905f19179",
    "name": "BM-1",
    "description": "This is a BareMetal2 Instance.",
    "zoneUuid": "d02a19753dfa4ee4ad43597c7e6d3a73",
    "clusterUuid": "966745e8fa264ca4811096a530202acd",
    "imageUuid": "02a4dc10172f4652bc160d4f8e397aee",
    "rootVolumeUuid": "f86494fac7714dad95bf90732e9bd319",
    "platform": "Linux",
    "type": "baremetal2",
    "memorySize": 8.589934592E9,
    "cpuNum": 8.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2InstanceInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0

Name	Type	Description	Starting Version
lastChassisUuid	String	The UUID of the bare metal chassis where the instance last resides.	4.0.0
gatewayUuid	String	The gateway UUID.	4.0.0
lastGatewayUuid	String	The UUID of the last gateway.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
gatewayAllocatorStrategy	String	The gateway allocation policy.	4.0.0
status	String	The connection status of the bare metal instance.	4.0.0
uuid	String	The UUID of the bare metal instance.	4.0.0
name	String	The bare metal instance name.	4.0.0
description	String	The detailed description of the bare metal instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
rootVolumeUuid	String	The root volume UUID	4.0.0
platform	String	The platform type.	4.0.0
defaultL3NetworkUuid	String	The UUID of the default L3 network.	4.0.0
type	String	The type of the bare metal instance.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
memorySize	Long	The memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0

Name	Type	Description	Starting Version
cpuSpeed	Long	The processing speed of the CPU.	4.0.0
createDate	Timestamp	The time when the bare metal instance was created.	4.0.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	4.0.0
state	String	The state of the bare metal instance.	4.0.0
provisionNic	BareMetal2InstanceProvisionNicInventory	See provisionNic .	4.0.0
vmNics	List	See vmNics .	4.0.0
allVolumes	List	See allVolumes .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC that is in the deployment network.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
mac	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	4.0.0
vmInstanceUuid	String	The UUID of the VM instance.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The version of the IP address.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps .	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the IP address.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0

Name	Type	Description	Starting Version
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask of the IP address.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was created.	4.0.0
lastOpDate	Timestamp	The time when the IP address was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume.	4.0.0

Name	Type	Description	Starting Version
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

SDK Sample

Java SDK

```
UpdateBareMetal2InstanceAction action = new UpdateBareMetal2InstanceAction();
action.uuid = "fe3ee28c03793c57b64c5cc76e096566";
action.name = "new-bm2-instance-name";
action.description = "new-bm2-instance-description";
action.state = "Running";
action.chassisOfferingUuid = "75f357e1c7d931f8977c44cf6e472088";
action.defaultL3NetworkUuid = "93b3ad570c9238568da83b838e41b944";
action.autoReleaseChassisEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
UpdateBareMetal2InstanceAction.Result res = action.call();
```

Python SDK

```
UpdateBareMetal2InstanceAction action = UpdateBareMetal2InstanceAction
()
action.uuid = "fe3ee28c03793c57b64c5cc76e096566"
action.name = "new-bm2-instance-name"
action.description = "new-bm2-instance-description"
action.state = "Running"
action.chassisOfferingUuid = "75f357e1c7d931f8977c44cf6e472088"
action.defaultL3NetworkUuid = "93b3ad570c9238568da83b838e41b944"
action.autoReleaseChassisEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateBareMetal2InstanceAction.Result res = action.call()
```

5.7.39 QueryBareMetal2Instance

API Request

URLs

```
GET zstack/v1/baremetal2/bm-instances
```

```
GET zstack/v1/baremetal2/bm-instances/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/bm-instances?
q=uuid=36cd7d9df10737999a92f9ce1395842d
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/bm-
instances/8c77fa2039993ac9ac02ddcc5fc67fcd
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryBareMetal2Instance`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
```

```

{
  "chassisUuid": "463018b125d742e8acb3d6a5412eb674",
  "lastChassisUuid": "5facc3e540e3464daef9dc123aae9f2b",
  "gatewayUuid": "2cdd33f2d2f14b599965b2b351c77c10",
  "lastGatewayUuid": "e96b15632b2d4975ae4252a8d33b3904",
  "chassisOfferingUuid": "db5d18b6551e4af492bda6cef97045e3",
  "status": "Connected",
  "uuid": "f6898853cff24b2a85c388f4c676d1a7",
  "name": "BM-1",
  "description": "This is a BareMetal2 Instance.",
  "zoneUuid": "8f741ad043a54c98a9729c3871cfc985",
  "clusterUuid": "1bf322359f0e41668a67e119fc2184d1",
  "imageUuid": "17ddfe24cce247f2a27a13ad78b1536a",
  "rootVolumeUuid": "e1551175153c4d4f89edfccf85e15fbe",
  "platform": "Linux",
  "type": "baremetal2",
  "memorySize": 8.589934592E9,
  "cpuNum": 8.0,
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM",
  "state": "Running"
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventories	List	See inventories	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventories

Name	Type	Description	Starting Version
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
lastChassisUuid	String	The UUID of the bare metal chassis where the instance last resides.	4.0.0
gatewayUuid	String	The gateway UUID.	4.0.0
lastGatewayUuid	String	The UUID of the last gateway.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
gatewayAllocatorStrategy	String	The gateway allocation policy.	4.0.0
status	String	The connection status of the elastic baremetal instance.	4.0.0
uuid	String	The UUID of the elastic baremetal instance.	4.0.0
name	String	The elastic baremetal instance name.	4.0.0
description	String	The detailed description of the elastic baremetal instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0

Name	Type	Description	Starting Version
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
rootVolumeUuid	String	The root volume UUID.	4.0.0
platform	String	The platform type.	4.0.0
defaultL3NetworkUuid	String	The UUID of the default L3 network.	4.0.0
type	String	The type of the elastic baremetal instance.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
memorySize	Long	The memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
cpuSpeed	Long	The processing speed of the CPU.	4.0.0
createDate	Timestamp	The time when the elastic baremetal instance was created.	4.0.0
lastOpDate	Timestamp	The time when the elastic baremetal instance was last modified.	4.0.0
state	String	The state of the elastic baremetal instance.	4.0.0
provisionNic	BareMetal2InstanceProvisionNicInventory	See provisionNic	4.0.0
vmNics	List	See vmNics	4.0.0
allVolumes	List	See allVolumes	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC that connects to the deployment network.	4.0.0

Name	Type	Description	Starting Version
networkUuid	String	The deployment network UUID.	4.0.0
interfaceName	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the elastic baremetal instance.	4.0.0
vmInstanceUuid	String	The UUID of the elastic baremetal instance.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0

Name	Type	Description	Starting Version
ipVersion	Integer	The version of the IP address.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the IP address.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask of the IP address.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was created.	4.0.0
lastOpDate	Timestamp	The time when the IP address was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The elastic baremetal instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume.	4.0.0
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0

Name	Type	Description	Starting Version
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

SDK Sample

Java SDK

```
QueryBareMetal2GatewayAction action = new QueryBareMetal2GatewayAction();
action.conditions = asList("uuid=089cc9f73e31367c8d3db89f736957b2");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBareMetal2GatewayAction.Result res = action.call();
```

Python SDK

```
QueryBareMetal2GatewayAction action = QueryBareMetal2GatewayAction()
action.conditions = ["uuid=88779d1fce2138c28744a2ed1265df1d"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBareMetal2GatewayAction.Result res = action.call()
```

5.7.40 ChangeBareMetal2InstancePassword

API Request

URLs

```
PUT /v1/baremetal2/bm-instances/{uuid}/action
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeBareMetal2InstancePassword": {
    "username": "root",
    "password": "password"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeBareMetal2InstancePassword":
{"username":"root","password":"password"}}' http://
localhost:8080/zstack/v1/baremetal2/bm-instances/
f2c1f0101aef32c782ddd6a09899d296/action
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the bare metal instance.		4.0.0
username	String	body(contained in the changeBareMetal2InstancePassword structure)	The username.		4.0.0
password	String	body(contained in the changeBareMetal2InstancePassword structure)	The password.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "inventory": {
    "chassisUuid": "1c06589d9b39475d8da1488cedad433b",
    "lastChassisUuid": "381c287319f040d6bfda27f2e873c495",
```

```

"gatewayUuid": "ee6e344efcac481f9fb135c83868f2a0",
"lastGatewayUuid": "77f3d8f675ae4fc1b52ddb35e64743ef",
"chassisOfferingUuid": "0799c5e4b9db480abf0072a74af99cbc",
"status": "Connected",
"uuid": "f615bc219c264801ae2d183071b55b44",
"name": "BM-1",
"description": "This is a BareMetal2 Instance.",
"zoneUuid": "f67ee2185540426495b410a3c8ea2ba9",
"clusterUuid": "146f701449f8455f9d0ab375c86c1de4",
"imageUuid": "9d8169d053c84ef5bee8f68225c95983",
"rootVolumeUuid": "794df7c17cbf451eaa86ad3124a0f577",
"platform": "Linux",
"type": "baremetal2",
"memorySize": 8.589934592E9,
"cpuNum": 8.0,
"createDate": "Nov 14, 2017 10:20:57 PM",
"lastOpDate": "Nov 14, 2017 10:20:57 PM",
"state": "Running"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2InstanceInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
lastChassisUuid	String	The UUID of the bare metal chassis where the instance last resides.	4.0.0
gatewayUuid	String	The gateway UUID.	4.0.0
lastGatewayUuid	String	The UUID of the last gateway.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
gatewayAllocatorStrategy	String	The gateway allocation policy.	4.0.0
status	String	The connection status of the bare metal instance.	4.0.0
uuid	String	The UUID of the bare metal instance.	4.0.0
name	String	The bare metal instance name.	4.0.0
description	String	The detailed description of the bare metal instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0

Name	Type	Description	Starting Version
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
rootVolumeUuid	String	The root volume UUID.	4.0.0
platform	String	The platform type.	4.0.0
defaultL3NetworkUuid	String	The UUID of the default L3 network.	4.0.0
type	String	The type of the bare metal instance.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
memorySize	Long	The memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
cpuSpeed	Long	The processing speed of the CPU.	4.0.0
createDate	Timestamp	The time when the bare metal instance was created.	4.0.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	4.0.0
state	String	The state of the bare metal instance.	4.0.0
provisionNic	BareMetal2InstanceProvisionNicInventory	See provisionNic .	4.0.0
vmNics	List	See vmNics .	4.0.0
allVolumes	List	See allVolumes .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC that is in the deployment network.	4.0.0

Name	Type	Description	Starting Version
networkUuid	String	The deployment network UUID.	4.0.0
mac	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	4.0.0
vmInstanceUuid	String	The UUID of the VM instance.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0

Name	Type	Description	Starting Version
ipVersion	Integer	The version of the IP address.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps .	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the IP address.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask of the IP address.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was created.	4.0.0
lastOpDate	Timestamp	The time when the IP address was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume.	4.0.0
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0

Name	Type	Description	Starting Version
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

SDK Sample

Java SDK

```
ChangeBareMetal2InstancePasswordAction action = new ChangeBareMetal2InstancePasswordAction();
action.uuid = "f2c1f0101aef32c782ddd6a09899d296";
action.username = "root";
action.password = "password";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeBareMetal2InstancePasswordAction.Result res = action.call();
```

Python SDK

```
ChangeBareMetal2InstancePasswordAction action = ChangeBareMetal2InstancePasswordAction()
action.uuid = "f2c1f0101aef32c782ddd6a09899d296"
action.username = "root"
action.password = "password"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeBareMetal2InstancePasswordAction.Result res = action.call()
```

5.7.41 StartBareMetal2Instance

API Request

URLs

```
PUT zstack/v1/baremetal2/bm-instances/{uuid}/action
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "startBareMetal2Instance": {
    "clusterUuid": "5308459a6fbd35dba89956f7025e34e3",
    "gatewayUuid": "921a40b2a91a3189b70fb41e5c838d80",
    "chassisUuid": "93db25cb3e763d57b2ebf5129434c1"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"startBareMetal2Instance":
{"clusterUuid":"5308459a6fbd35dba89956f7025e34e3", "gatewayUuid":"921a40b2a91a3189
http://localhost:8080/zstack/v1/baremetal2/bm-
instances/62f5e08b9d5f3c729a63d558d3eb023a/action
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The bare metal instance UUID.		4.0.0
clusterUuid	String	body(contained in the startBareMetal2Instance structure)	Optional. The cluster UUID.		4.0.0
gatewayUuid	String	body(contained in the startBareMetal2Instance structure)	Optional. The gateway UUID.		4.0.0
chassisUuid	String	body(contained in the startBareMetal2Instance structure)	Optional. The bare metal chassis UUID.		4.0.0
chassisOfferingUuid	String	body	Optional. The bare metal chassis offering UUID.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "chassisUuid": "71589294e70d41408331e22b5dc61510",
    "lastChassisUuid": "aa3bd0a4fb3545d59df7febd62fcb22b",
    "gatewayUuid": "770bdbc4be1a4faf84756022fe434caf",
    "lastGatewayUuid": "b8ed1247500b405ead053babc8f1a5db",
    "chassisOfferingUuid": "bbeb7fddcf9943749ca1a96cddf16f15",
    "status": "Connected",
    "uuid": "a60f5e148e2f4a2ba06afc2785bf8a42",
    "name": "BM-1",
    "description": "This is a BareMetal2 Instance.",
    "zoneUuid": "c40cb9c7e86a45c892b190cc9a356e7a",
    "clusterUuid": "8251f2399e7c4075969686fe22367b81",
    "imageUuid": "3e2afb0cc212448bb8f72ddaaa90d080",
    "rootVolumeUuid": "8dc4889a2d6748a5aaa17ebaa2cbca28",
    "platform": "Linux",
    "type": "baremetal2",
    "memorySize": 8.589934592E9,
    "cpuNum": 8.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.0.0
inventory	BareMetal2InstanceInventory	See inventory	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
lastChassisUuid	String	The UUID of the bare metal chassis where the instance last resides.	4.0.0
gatewayUuid	String	The gateway UUID.	4.0.0
lastGatewayUuid	String	The UUID of the last gateway.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
gatewayAllocatorStrategy	String	The gateway allocation policy.	4.0.0

Name	Type	Description	Starting Version
status	String	The connection status of the bare metal instance.	4.0.0
uuid	String	The UUID of the bare metal instance.	4.0.0
name	String	The bare metal instance name.	4.0.0
description	String	The detailed description of the bare metal instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
rootVolumeUuid	String	The root volume UUID.	4.0.0
platform	String	The platform type.	4.0.0
defaultL3NetworkUuid	String	The UUID of the default L3 network.	4.0.0
type	String	The type of the bare metal instance.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
memorySize	Long	The memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
cpuSpeed	Long	The processing speed of the CPU.	4.0.0
createDate	Timestamp	The time when the bare metal instance was created.	4.0.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	4.0.0
state	String	The state of the bare metal instance.	4.0.0

Name	Type	Description	Starting Version
provisionNic	BareMetal2InstanceProvisionNicInventory	See provisionNic	4.0.0
vmNics	List	See vmNics	4.0.0
allVolumes	List	See allVolumes	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC that connects to the deployment network.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
mac	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	4.0.0
vmInstanceUuid	String	The UUID of the bare metal instance.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0

Name	Type	Description	Starting Version
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The version of the IP address.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the IP address.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask of the IP address.	4.0.0
gateway	String	The gateway IP address.	4.0.0

Name	Type	Description	Starting Version
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was created.	4.0.0
lastOpDate	Timestamp	The time when the IP address was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The bare metal instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume.	4.0.0
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0

Name	Type	Description	Starting Version
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

SDK Sample

Java SDK

```
StartBareMetal2InstanceAction action = new StartBareMetal2InstanceAction();
action.uuid = "62f5e08b9d5f3c729a63d558d3eb023a";
action.clusterUuid = "5308459a6fbd35dba89956f7025e34e3";
action.gatewayUuid = "921a40b2a91a3189b70fb41e5c838d80";
action.chassisUuid = "93db25cb3e763d57b2ebf5129434c1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
StartBareMetal2InstanceAction.Result res = action.call();
```

Python SDK

```
StartBareMetal2InstanceAction action = StartBareMetal2InstanceAction()
action.uuid = "62f5e08b9d5f3c729a63d558d3eb023a"
action.clusterUuid = "5308459a6fbd35dba89956f7025e34e3"
action.gatewayUuid = "921a40b2a91a3189b70fb41e5c838d80"
action.chassisUuid = "93db25cb3e763d57b2ebf5129434c1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
StartBareMetal2InstanceAction.Result res = action.call()
```

5.7.42 ReconnectBareMetal2Instance

API Request

URLs

```
PUT /v1/baremetal2/bm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectBareMetal2Instance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectBareMetal2Instance":{}}' http://
localhost:8080/zstack/v1/baremetal2/bm-instances/
a84e99583ee53cfda312c5dc578e8f26/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The bare metal instance UUID.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "chassisUuid": "eec8c68bf7604e72838f648343d9964a",
    "lastChassisUuid": "ae05edc9fe9942bb9d3d8579d7369b4e",
    "gatewayUuid": "d9b1f4714b42423ca6a575823428eda9",
    "lastGatewayUuid": "4802704a191145b7bc47a76edca35bae",
    "chassisOfferingUuid": "d31fcd90e61b4554badc31eff3483432",
    "status": "Connected",
    "uuid": "0c6170f7bf9c40ca96e0f9c8922ea778",
    "name": "BM-1",
    "description": "This is a BareMetal2 Instance.",
    "zoneUuid": "b672b1b8daa14672a3062977dbd6a9b4",
    "clusterUuid": "473e3067f9df4f678e5703614b95a33e",
    "imageUuid": "d987409f81464857a2b6980862d964de",
    "rootVolumeUuid": "db4f08d513bc49ac97939a80eb3e390b",
    "platform": "Linux",
    "type": "baremetal2",
    "memorySize": 8.589934592E9,
    "cpuNum": 8.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2InstanceInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0

Name	Type	Description	Starting Version
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
chassisUuid	String	The UUID of the bare metal chassis.	4.0.0
lastChassisUuid	String	The UUID of the bare metal chassis where the instance last resides.	4.0.0
gatewayUuid	String	The gateway UUID.	4.0.0
lastGatewayUuid	String	The UUID of the last gateway.	4.0.0
chassisOfferingUuid	String	The chassis offering UUID.	4.0.0
gatewayAllocatorStrategy	String	The gateway allocation policy.	4.0.0
status	String	The connection status of the bare metal instance.	4.0.0
uuid	String	The UUID of the bare metal instance.	4.0.0
name	String	The bare metal instance name.	4.0.0

Name	Type	Description	Starting Version
description	String	The detailed description of the bare metal instance.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
clusterUuid	String	The cluster UUID.	4.0.0
imageUuid	String	The image UUID.	4.0.0
rootVolumeUuid	String	The root volume UUID.	4.0.0
platform	String	The platform type.	4.0.0
defaultL3NetworkUuid	String	The UUID of the default L3 network.	4.0.0
type	String	The type of the bare metal instance.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
memorySize	Long	The memory size.	4.0.0
cpuNum	Integer	The number of CPU cores.	4.0.0
cpuSpeed	Long	The processing speed of the CPU.	4.0.0
createDate	Timestamp	The time when the bare metal instance was created.	4.0.0
lastOpDate	Timestamp	The time when the bare metal instance was last modified.	4.0.0
state	String	The state of the bare metal instance.	4.0.0
provisionNic	BareMetal2InstanceProvisionNicInventory	See provisionNic .	4.0.0
vmNics	List	See vmNics .	4.0.0
allVolumes	List	See allVolumes .	4.0.0

#provisionNic

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC that is in the deployment network.	4.0.0
networkUuid	String	The deployment network UUID.	4.0.0
mac	String	The name of the NIC.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0
gateway	String	The gateway IP address.	4.0.0
metadata	String		4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the bare metal instance.	4.0.0
vmInstanceUuid	String	The UUID of the VM instance.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ip	String	The IP address of the NIC.	4.0.0
mac	String	The MAC address of the NIC.	4.0.0
hypervisorType	String	The virtualization type.	4.0.0
netmask	String	The netmask of the NIC.	4.0.0

Name	Type	Description	Starting Version
gateway	String	The gateway IP address.	4.0.0
metaData	String		4.0.0
ipVersion	Integer	The version of the IP address.	4.0.0
deviceId	Integer	The device ID.	4.0.0
type	String	The NIC type.	4.0.0
createDate	Timestamp	The time when the NIC was created.	4.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	4.0.0
usedIps	List	See usedIps .	4.0.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the IP address.	4.0.0
ipRangeUuid	String	The IP range UUID.	4.0.0
l3NetworkUuid	String	The L3 network UUID.	4.0.0
ipVersion	Integer	The IP version.	4.0.0
ip	String	The IP address.	4.0.0
netmask	String	The netmask of the IP address.	4.0.0
gateway	String	The gateway IP address.	4.0.0
usedFor	String		4.0.0
ipInLong	long		4.0.0
vmNicUuid	String	The NIC UUID.	4.0.0
createDate	Timestamp	The time when the IP address was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the IP address was last modified.	4.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The volume UUID.	4.0.0
name	String	The volume name.	4.0.0
description	String	The detailed description of the volume.	4.0.0
primaryStorageUuid	String	The primary storage UUID.	4.0.0
vmInstanceUuid	String	The VM instance UUID.	4.0.0
diskOfferingUuid	String	The volume offering UUID.	4.0.0
rootImageUuid	String	The root image UUID.	4.0.0
installPath	String	The installation path of the volume in the primary storage.	4.0.0
type	String	The type of the volume.	4.0.0
format	String	The format of the volume.	4.0.0
size	Long	The size of the volume.	4.0.0
actualSize	Long	The actual storage space that the volume takes up.	4.0.0
deviceId	Integer		4.0.0
state	String	The state of the volume.	4.0.0
status	String	The status of the volume.	4.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the volume was created.	4.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	4.0.0
isShareable	Boolean	Indicates whether the volume is shareable.	4.0.0
volumeQos	String	The QoS of the volume, for example, 1048576.	4.0.0

SDK Sample

Java SDK

```
ReconnectBareMetal2InstanceAction action = new ReconnectBareMetal2InstanceAction();
action.uuid = "a84e99583ee53cfda312c5dc578e8f26";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ReconnectBareMetal2InstanceAction.Result res = action.call();
```

Python SDK

```
ReconnectBareMetal2InstanceAction action = ReconnectBareMetal2InstanceAction()
action.uuid = "a84e99583ee53cfda312c5dc578e8f26"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ReconnectBareMetal2InstanceAction.Result res = action.call()
```

5.7.43 CheckStaticProvisionIp

API Request

URLs

```
POST zstack/v1/baremetal2/bm-instances/static/provision/ip/check
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "clusterUuid": "25f9e4033cc13338b813cc239347843b",
    "provisionIp": "10.99.0.3"
  }
}
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"clusterUuid":"25f9e4033cc13338b813cc239347843b","provisionIp":"10.99.0.3"}}'
http://localhost:8080/zstack/v1/baremetal2/bm-instances/static/
provision/ip/check

```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
clusterUuid	String	body (contained in the params structure)	The cluster UUID.		5.2.0
provisionIp	String	body (contained in the params structure)	The provision IP address.		5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

```
}
```

SDK Sample

Java SDK

```
CheckStaticProvisionIpAction action = new CheckStaticProvisionIpAction
();
action.clusterUuid = "25f9e4033cc13338b813cc239347843b";
action.provisionIp = "10.99.0.3";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckStaticProvisionIpAction.Result res = action.call();
```

Python SDK

```
CheckStaticProvisionIpAction action = CheckStaticProvisionIpAction()
action.clusterUuid = "25f9e4033cc13338b813cc239347843b"
action.provisionIp = "10.99.0.3"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CheckStaticProvisionIpAction.Result res = action.call()
```

5.7.44 InspectBareMetal2ChassisByInstance

API Request

URLs

```
PUT zstack/v1/baremetal2/bm-instances/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "inspectBareMetal2ChassisByInstance": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"inspectBareMetal2ChassisByInstance":{}}'
http://localhost:8080/zstack/v1/baremetal2/bm-instances/
d40144a84b1633e8b2aacd333a7105d3/actions
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "33ce10962f314b71be5b846cd7230af7",
    "name": "BM_CHASSIS",
    "description": "This is a bare metal chassis.",
    "zoneUuid": "d07b6968028a49e199373c51af1aca23",
    "clusterUuid": "3cb1198f2d964626ba1309a43d854610",
    "chassisOfferingUuid": "6f0ee825fd9a441885eebd70f0f9171c",
    "type": "IPMI",
    "state": "Enabled",
    "status": "Available",
    "powerStatus": "POWER_ON",
    "provisionType": "Remote",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.2.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.2.0
inventory	BareMetal2ChassisInventory	See inventory	5.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.2.0
description	String	The brief description of the error.	5.2.0
details	String	The details about the error.	5.2.0
elaboration	String	The reserved field. Default value: null.	5.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.2.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
name	String	The resource name.	5.2.0
description	String	The detailed description of the resource.	5.2.0
zoneUuid	String	The zone UUID.	5.2.0
clusterUuid	String	The cluster UUID.	5.2.0
chassisOfferingUuid	String	The elastic baremetal offering UUID.	5.2.0
type	String	The type.	5.2.0
state	String	The state.	5.2.0

Name	Type	Description	Starting Version
status	String	The distribution status.	5.2.0
powerStatus	String	The power status.	5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time	5.2.0
chassisNics	List	See chassisNics	5.2.0
chassisDisks	List	See chassisDisks	5.2.0
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering	5.2.0

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
chassisUuid	String	The baremetal node UUID.	5.2.0
mac	String	The NIC MAC address	5.2.0
speed	String	The NIC speed.	5.2.0
isProvisionNic	Boolean	Whether the NIC is a provision NIC or not.	5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time	5.2.0

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
chassisUuid	String	The baremetal node UUID.	5.2.0
diskSize	Long	The disk size (Unit: byte).	5.2.0
type	String	The disk type.	5.2.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time .	5.2.0

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
name	String	The resource name.	5.2.0
description	String	The detailed description if the resource.	5.2.0
architecture	String	The CPU architecture.	5.2.0
cpuModelName	String	The CPU model.	5.2.0
cpuNum	Integer	The CPU cores.	5.2.0
memorySize	Long	The memory size.	5.2.0
bootMode	String	The status.	5.2.0
state	String	The state.	5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time .	5.2.0

SDK Sample

Java SDK

```
InspectBareMetal2ChassisByInstanceAction action = new InspectBareMetal2ChassisByInstanceAction();
action.uuid = "d40144a84b1633e8b2aacd333a7105d3";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
InspectBareMetal2ChassisByInstanceAction.Result res = action.call();
```

Python SDK

```
InspectBareMetal2ChassisByInstanceAction action = InspectBareMetal2ChassisByInstanceAction()
action.uuid = "d40144a84b1633e8b2aacd333a7105d3"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
InspectBareMetal2ChassisByInstanceAction.Result res = action.call()
```

5.7.45 CreateBareMetal2Bonding

API Requests

URLs

```
POST /v1/baremetal2/chassis/bond
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "chassisUuid": "a4fbbe7091973f5b94232054883f5237",
    "name": "bond0",
    "mode": 1.0,
    "slaves": "40:8d:5c:f7:8d:68,40:8d:5c:f7:8d:69"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Samples

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"chassisUuid":"a4fbbe7091973f5b94232054883f5237","name":"bond0","mode":1.0,"slaves":
"http://localhost:8080/zstack/v1/baremetal2/chassis/bond
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
chassisUuid	String	body (contained in the params structure)			4.4.24

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.4.24
mode	Integer	body (contained in the params structure)			4.4.24
slaves	String	body (contained in the params structure)			4.4.24
opts	String	body (contained in the params structure)	Optional.		4.4.24
systemTags	List	body	Optional. The system tags.		4.4.24
userTags	List	body	Optional. The user tags.		4.4.24

API Response

Sample Response

```
{
  "inventory": {
    "chassisUuid": "f4eab1389d2a4cf49c8dfef456480c5a",
    "name": "bond0",
    "slaves": "40:8d:5c:f7:8d:60,40:8d:5c:f7:8d:61",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "uuid": "d5090788c5624c039857ddbd32467234"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.4.24
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.4.24

Name	Type	Description	Starting Version
		more information, see error	
inventory	BareMetal2BondingInventory	See inventory	4.4.24

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.24
description	String	The brief description of the error.	4.4.24
details	String	The details about the error.	4.4.24
elaboration	String	The reserved field. Default value: null.	4.4.24
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.24
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.24

#inventory

Name	Type	Description	Starting Version
chassisUuid	String		4.4.24
name	String	The resource name.	4.4.24
slaves	String		4.4.24
opts	String		4.4.24
mode	Integer		4.4.24

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	4.4.24
lastOpDate	Timestamp	The last operation date.	4.4.24
accountUuid	String	The account UUID.	4.4.24
uuid	String	The resource UUID.	4.4.24

SDK Sample

Java SDK

```
CreateBareMetal2BondingAction action = new CreateBareMetal2BondingAction();
action.chassisUuid = "a4fbbe7091973f5b94232054883f5237";
action.name = "bond0";
action.mode = 1.0;
action.slaves = "40:8d:5c:f7:8d:68,40:8d:5c:f7:8d:69";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateBareMetal2BondingAction.Result res = action.call();
```

Python SDK

```
CreateBareMetal2BondingAction action = CreateBareMetal2BondingAction()
action.chassisUuid = "a4fbbe7091973f5b94232054883f5237"
action.name = "bond0"
action.mode = 1.0
action.slaves = "40:8d:5c:f7:8d:68,40:8d:5c:f7:8d:69"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateBareMetal2BondingAction.Result res = action.call()
```

5.7.46 CleanUpBareMetal2Bonding

API Requests

URLs

```
PUT /v1/baremetal2/chassis/{chassisUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "cleanUpBareMetal2Bonding": {},
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Samples

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"cleanUpBareMetal2Bonding":{}}'
http://localhost:8080/zstack/v1/baremetal2/
chassis/696b73a0a9d03df58131f56f00bf4b4d/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
chassisUuid	String	body (contained in the params structure)			4.4.24
systemTags	List	body	Optional. The system tags.		4.4.24
userTags	List	body	Optional. The user tags.		4.4.24

API Response**Sample Response**

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample**Java SDK**

```
CleanUpBareMetal2BondingAction action = new CleanUpBareMetal2BondingAction();
action.chassisUuid = "696b73a0a9d03df58131f56f00bf4b4d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CleanUpBareMetal2BondingAction.Result res = action.call();
```

Python SDK

```
CleanUpBareMetal2BondingAction action = CleanUpBareMetal2BondingAction
()
action.chassisUuid = "696b73a0a9d03df58131f56f00bf4b4d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CleanUpBareMetal2BondingAction.Result res = action.call()
```

5.7.47 QueryBareMetal2Bonding

API Requests

URLs

```
GET /v1/baremetal2/bonding
```

Headers

```
Authorization: OAuth the-session-uuid
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryBareMetal2Bonding**, and pressing the **Tab** key.

Curl Samples

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/bonding?
q=uuid=0250c111188b3c4f92efd998c89fb32d
```

API Response

Sample Response

```
{
  "inventories": [
    {
      "chassisUuid": "08e177d0c35648de8939515bf9d5adad",
      "name": "bond0",
      "slaves": "40:8d:5c:f7:8d:60,40:8d:5c:f7:8d:61",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "uuid": "7910f442d5c94e82963e17155567b6f3"
    }
  ]
}
```


}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.4.24
success	boolean		4.4.24
inventories	List	See inventories	4.4.24

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.24
description	String	The brief description of the error.	4.4.24
details	String	The details about the error.	4.4.24
elaboration	String	The reserved field. Default value: null.	4.4.24
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.24
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.24

#inventories

Name	Type	Description	Starting Version
chassisUuid	String		4.4.24

Name	Type	Description	Starting Version
name	String	The resource name.	4.4.24
slaves	String		4.4.24
opts	String		4.4.24
mode	Integer		4.4.24
createDate	Timestamp	The creation date.	4.4.24
lastOpDate	Timestamp	The last operation date.	4.4.24
accountUuid	String	The account UUID.	4.4.24
uuid	String	The resource UUID.	4.4.24

SDK Sample

Java SDK

```
QueryBareMetal2BondingAction action = new QueryBareMetal2BondingAction();
action.conditions = asList("uuid=7a85935a77ff378bbd349f619f647b26");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBareMetal2BondingAction.Result res = action.call();
```

Python SDK

```
QueryBareMetal2BondingAction action = QueryBareMetal2BondingAction()
action.conditions = ["uuid=cb72ba18b6f83cec99cbf2519694ad33"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBareMetal2BondingAction.Result res = action.call()
```

5.7.48 QueryBareMetal2BondingNicRef

API Requests

URLs

```
GET /v1/baremetal2/bonding/nic/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryBareMetal2BondingNicRef**, and pressing the **Tab** key.

Curl Samples

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/bonding/nic/refs?
q=uuid=1ca709f9d1cf377b99b20f277e7c97f9
```

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "8efce80a3b804b038d4cc7055e3eb162",
      "name": "BM_CHASSIS",
      "description": "This is a bare metal chassis.",
      "zoneUuid": "fc08d44db9ec493e8f14150a3bf4fe40",
      "clusterUuid": "06fe95935cd74d3bbb15c049e7333295",
      "chassisOfferingUuid": "aa98b259748448b992c58076910b7343",
      "type": "IPMI",
      "state": "Enabled",
      "status": "Available",
      "powerStatus": "POWER_ON",
      "provisionType": "Remote",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.4.24
success	boolean		4.4.24
inventories	List	See inventories	4.4.24

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.4.24

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.4.24
details	String	The details about the error.	4.4.24
elaboration	String	The reserved field. Default value: null.	4.4.24
opaque	LinkedHashMap	The reserved field. Default value: null.	4.4.24
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.4.24

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.4.24
name	String	The resource name.	4.4.24
description	String	The detailed description of the resource.	4.4.24
zoneUuid	String	The zone UUID.	4.4.24
clusterUuid	String	The cluster UUID.	4.4.24
chassisOfferingUuid	String	The chassis offering UUID.	4.4.24
type	String	Type	4.4.24
state	String	The state of the elastic bare metal instance.	4.4.24
status	String	The status of the elastic bare metal instance.	4.4.24
powerStatus	String	The power status.	4.4.24
createDate	Timestamp	The creation date.	4.4.24

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.4.24
chassisNics	List	See chassisNics	4.4.24
chassisDisks	List	See chassisDisks	4.4.24
chassisOffering	BareMetal2ChassisOfferingInventory	See chassisOffering	4.4.24

#chassisNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the bare metal chassis NIC.	4.4.24
chassisUuid	String	The UUID of the bare metal chassis.	4.4.24
mac	String	The MAC address of the chassis NIC.	4.4.24
speed	String	The data rate of the chassis NIC.	4.4.24
isProvisionNic	Boolean	Indicates whether the NIC is a provisioned NIC.	4.4.24
createDate	Timestamp	The time when the NIC was created.	4.4.24
lastOpDate	Timestamp	The time when the NIC was last modified.	4.4.24

#chassisDisks

Name	Type	Description	Starting Version
uuid	String	The UUID of the chassis disk.	4.4.24
chassisUuid	String	The chassis UUID.	4.4.24
diskSize	Long	The size of the disk storage space, in bytes.	4.4.24
type	String	The type of the disk.	4.4.24

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the disk was created.	4.4.24
lastOpDate	Timestamp	The time when the disk was last modified.	4.4.24

#chassisOffering

Name	Type	Description	Starting Version
uuid	String	The chassis offering UUID.	4.4.24
name	String	The name of the chassis offering.	4.4.24
description	String	The detailed description of the chassis offering.	4.4.24
architecture	String	The CPU architecture.	4.4.24
cpuModelName	String	The CPU model name.	4.4.24
cpuNum	Integer	The number of CPU cores.	4.4.24
memorySize	Long	The memory size.	4.4.24
bootMode	String	The boot mode.	4.4.24
state	String	The state of the chassis offering.	4.4.24
createDate	Timestamp	The time when the chassis offering was created.	4.4.24
lastOpDate	Timestamp	The time when the chassis offering was last modified.	4.4.24

SDK Sample

Java SDK

```
QueryBareMetal2BondingNicRefAction action = new QueryBareMetal2BondingNicRefAction();
action.conditions = asList("uuid=9c199dcc0a8e3f888e2e2979b9c68b5e");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryBareMetal2BondingNicRefAction.Result res = action.call();
```

Python SDK

```
QueryBareMetal2BondingNicRefAction action = QueryBareMetal2Bondi
ngNicRefAction()
action.conditions = ["uuid=2dfe71bbf313315f825a52a17568fc71"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBareMetal2BondingNicRefAction.Result res = action.call()
```

5.7.49 CreateBareMetal2ProvisionNetwork

API Request

URLs

```
POST zstack/v1/baremetal2/provision-networks
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "BM_PROVISION_NETWORK",
    "description": "This is a baremetal2 provision network.",
    "zoneUuid": "3391c3bf65fb34d0ae8ace100c28da77",
    "dhcpInterface": "eth0",
    "dhcpRangeStartIp": "192.168.0.100",
    "dhcpRangeEndIp": "192.168.0.200",
    "dhcpRangeNetmask": "255.255.255.0",
    "dhcpRangeGateway": "192.168.0.1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"BM_PROVISION_NETWORK","description":"This is a baremetal2
provision
```

```
network.", "zoneUuid": "3391c3bf65fb34d0ae8ace100c28da77", "dhcpInterface": "eth0",  
http://localhost:8080/zstack/v1/baremetal2/provision-networks
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body(contained in the params structure)	The name of the deployment network.		4.0.0
description	String	body(contained in the params structure)	Optional. The detailed description of the deployment network.		4.0.0
zoneUuid	String	body(contained in the params structure)	The zone UUID.		4.0.0
dhcpInterface	String	body(contained in the params structure)	The name of the DHCP NIC.		4.0.0
dhcpRangeStartIp	String	body(contained in the params structure)	The starting IP address that DHCP assigns to a bare metal instance.		4.0.0
dhcpRangeEndIp	String	body(contained in the params structure)	The ending IP address that DHCP assigns to a bare metal instance.		4.0.0
dhcpRangeNetmask	String	body(contained in the params structure)	The netmask of the IP range from which the DHCP server assigns an IP address		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
			to a bare metal instance.		
dhcpRangeGateway	String	body(contained in the params structure)	Optional. The gateway IP address.		4.0.0
resourceUuid	String	body(contained in the params structure)	Optional. The deployment network UUID.		4.0.0
tagUuids	List	body(contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0adedb8acdba4a889a4679c0f2a3dccd",
    "zoneUuid": "dee0edff3afc42d988c54a3675f56617",
    "name": "BM_PROVISION_NETWORK",
    "description": "This is a bare metal provision network.",
    "dhcpInterface": "eth0",
    "dhcpRangeStartIp": "192.168.0.10",
    "dhcpRangeEndIp": "192.168.0.100",
    "dhcpRangeNetmask": "255.255.255.0",
    "dhcpRangeGateway": "192.168.0.1",
    "dhcpRangeNetworkCidr": "192.168.0.10/24",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.0.0

Name	Type	Description	Starting Version
		more information, see error	
inventory	BareMetal2ProvisionNetworkInventory	See inventory	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The deployment network UUID.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the deployment network.	4.0.0

Name	Type	Description	Starting Version
description	String	The detailed description of the deployment network.	4.0.0
dhcpInterface	String	The name of the DHCP NIC.	4.0.0
dhcpRangeStartIp	String	The starting IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeEndIp	String	The ending IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeNetmask	String	The netmask of the IP range from which the DHCP server assigns an IP address to a bare metal instance.	4.0.0
dhcpRangeGateway	String	The gateway IP address.	4.0.0
dhcpRangeNetworkCidr	String	The CIDR block.	4.0.0
state	String	The state of the deployment network.	4.0.0
createDate	Timestamp	The time when the deployment network was created.	4.0.0
lastOpDate	Timestamp	The time when the deployment network was last modified.	4.0.0
attachedClusterUuids	List		4.0.0

SDK Sample

Java SDK

```
CreateBareMetal2ProvisionNetworkAction action = new CreateBareMetal2ProvisionNetworkAction();
action.name = "BM_PROVISION_NETWORK";
action.description = "This is a baremetal2 provision network.";
```

```

action.zoneUuid = "3391c3bf65fb34d0ae8ace100c28da77";
action.dhcpInterface = "eth0";
action.dhcpRangeStartIp = "192.168.0.100";
action.dhcpRangeEndIp = "192.168.0.200";
action.dhcpRangeNetmask = "255.255.255.0";
action.dhcpRangeGateway = "192.168.0.1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateBareMetal2ProvisionNetworkAction.Result res = action.call();

```

Python SDK

```

CreateBareMetal2ProvisionNetworkAction action = CreateBareMetal2ProvisionNetworkAction()
action.name = "BM_PROVISION_NETWORK"
action.description = "This is a baremetal2 provision network."
action.zoneUuid = "3391c3bf65fb34d0ae8ace100c28da77"
action.dhcpInterface = "eth0"
action.dhcpRangeStartIp = "192.168.0.100"
action.dhcpRangeEndIp = "192.168.0.200"
action.dhcpRangeNetmask = "255.255.255.0"
action.dhcpRangeGateway = "192.168.0.1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateBareMetal2ProvisionNetworkAction.Result res = action.call()

```

5.7.50 DeleteBareMetal2ProvisionNetwork

API Request

URLs

```
DELETE zstack/v1/baremetal2/provision-networks/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/baremetal2/provision-networks/b3418be5bae83706b8864daa54f0a680

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The deployment network UUID.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
deleteMode	String	body	Optional. The deletion mode.	• Permissive • Enforcing	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteBareMetal2ProvisionNetworkAction action = new DeleteBare
Metal2ProvisionNetworkAction();
action.uuid = "b3418be5bae83706b8864daa54f0a680";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteBareMetal2ProvisionNetworkAction.Result res = action.call();
```

Python SDK

```
DeleteBareMetal2ProvisionNetworkAction action = DeleteBareMetal2Prov
isionNetworkAction()
action.uuid = "b3418be5bae83706b8864daa54f0a680"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteBareMetal2ProvisionNetworkAction.Result res = action.call()
```

5.7.51 UpdateBareMetal2ProvisionNetwork

API Request

URLs

```
PUT zstack/v1/baremetal2/provision-networks/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateBareMetal2ProvisionNetwork": {
    "name": "NEW_BM_PROVISION_NETWORK",
    "description": "This is a new bare metal provision network.",
    "dhcpInterface": "ens0",
    "dhcpRangeStartIp": "10.0.0.100",
    "dhcpRangeEndIp": "10.0.0.200",
    "dhcpRangeNetmask": "255.255.255.0",
    "dhcpRangeGateway": "10.0.0.1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateBareMetal2ProvisionNetwork":
{"name":"NEW_BM_PROVISION_NETWORK","description":"This is a new bare
metal provision
network.","dhcpInterface":"ens0","dhcpRangeStartIp":"10.0.0.100","dhcpRangeEndIp":
http://localhost:8080/zstack/v1/baremetal2/provision-
networks/597f524b0c70326d87f654a78f82b304/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The deployment network UUID.		4.0.0
name	String	body(contained in the updateBare Metal2ProvisionNetwork structure)	Optional. The deployment network name.		4.0.0
description	String	body(contained in the updateBare Metal2ProvisionNetwork structure)	Optional. The detailed description of the deployment network.		4.0.0
dhcpInterface	String	body(contained in the updateBare Metal2ProvisionNetwork structure)	Optional. The name of the DHCP NIC.		4.0.0
dhcpRangeStartIp	String	body(contained in the updateBare Metal2ProvisionNetwork structure)	Optional. The starting IP address that DHCP assigns to a bare metal instance.		4.0.0
dhcpRangeEndIp	String	body(contained in the updateBare Metal2ProvisionNetwork structure)	Optional. The ending IP address that DHCP assigns to a bare metal instance.		4.0.0
dhcpRangeNetmask	String	body(contained in the updateBare	Optional. The netmask of the IP range		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		Metal2ProvisionNetwork structure)	from which the DHCP server assigns an IP address to a bare metal instance.		
dhcpRangeGateway	String	body(contained in the updateBareMetal2ProvisionNetwork structure)	Optional. The gateway IP address.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "71a316af965a48949b55603ab30be6e8",
    "zoneUuid": "c052ae4b7fa447848f25e1c7fab543d2",
    "name": "BM_PROVISION_NETWORK",
    "description": "This is a bare metal provision network.",
    "dhcpInterface": "eth0",
    "dhcpRangeStartIp": "192.168.0.10",
    "dhcpRangeEndIp": "192.168.0.100",
    "dhcpRangeNetmask": "255.255.255.0",
    "dhcpRangeGateway": "192.168.0.1",
    "dhcpRangeNetworkCidr": "192.168.0.10/24",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	4.0.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	BareMetal2ProvisionNetworkInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The deployment network UUID.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the deployment network.	4.0.0

Name	Type	Description	Starting Version
description	String	The detailed description of the deployment network.	4.0.0
dhcpInterface	String	The name of the DHCP NIC.	4.0.0
dhcpRangeStartIp	String	The starting IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeEndIp	String	The ending IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeNetmask	String	The netmask of the IP range from which the DHCP server assigns an IP address to a bare metal instance.	4.0.0
dhcpRangeGateway	String	The gateway IP address.	4.0.0
dhcpRangeNetworkCidr	String	The CIDR block.	4.0.0
state	String	The state of the deployment network.	4.0.0
createDate	Timestamp	The time when the deployment network was created.	4.0.0
lastOpDate	Timestamp	The time when the deployment network was last modified.	4.0.0
attachedClusterUuids	List		4.0.0

SDK Sample

Java SDK

```
UpdateBareMetal2ProvisionNetworkAction action = new UpdateBareMetal2ProvisionNetworkAction();
action.uuid = "597f524b0c70326d87f654a78f82b304";
action.name = "NEW_BM_PROVISION_NETWORK";
```

```

action.description = "This is a new bare metal provision network.";
action.dhcpInterface = "ens0";
action.dhcpRangeStartIp = "10.0.0.100";
action.dhcpRangeEndIp = "10.0.0.200";
action.dhcpRangeNetmask = "255.255.255.0";
action.dhcpRangeGateway = "10.0.0.1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateBareMetal2ProvisionNetworkAction.Result res = action.call();

```

Python SDK

```

UpdateBareMetal2ProvisionNetworkAction action = UpdateBareMetal2ProvisionNetworkAction()
action.uuid = "597f524b0c70326d87f654a78f82b304"
action.name = "NEW_BM_PROVISION_NETWORK"
action.description = "This is a new bare metal provision network."
action.dhcpInterface = "ens0"
action.dhcpRangeStartIp = "10.0.0.100"
action.dhcpRangeEndIp = "10.0.0.200"
action.dhcpRangeNetmask = "255.255.255.0"
action.dhcpRangeGateway = "10.0.0.1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateBareMetal2ProvisionNetworkAction.Result res = action.call()

```

5.7.52 QueryBareMetal2ProvisionNetwork

API Request

URLs

```
GET zstack/v1/baremetal2/provision-networks
```

```
GET zstack/v1/baremetal2/provision-networks/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/provision-networks?
q=uuid=b21a4853a2fe382081e2a3be5805e9a9

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/provision-networks/
c8ce6d5ae2bf32f180334bf3a8a6cfd0

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryBareMetal2ProvisionNetwork`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "dc29aa53b5624dca835173938e8fee4b",
      "zoneUuid": "6f25b0e09f46488ba7c29d16a45a0257",
      "name": "BM_PROVISION_NETWORK",
      "description": "This is a bare metal provision network.",
      "dhcpInterface": "eth0",
      "dhcpRangeStartIp": "192.168.0.10",
      "dhcpRangeEndIp": "192.168.0.100",
      "dhcpRangeNetmask": "255.255.255.0",
      "dhcpRangeGateway": "192.168.0.1",
      "dhcpRangeNetworkCidr": "192.168.0.10/24",
      "state": "Enabled",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventories	List	See inventories .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The deployment network UUID.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the deployment network.	4.0.0
description	String	The detailed description of the deployment network.	4.0.0
dhcpInterface	String	The name of the DHCP NIC.	4.0.0
dhcpRangeStartIp	String	The starting IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeEndIp	String	The ending IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeNetmask	String	The netmask of the IP range from which the DHCP server assigns an IP address to a bare metal instance.	4.0.0
dhcpRangeGateway	String	The gateway IP address.	4.0.0

Name	Type	Description	Starting Version
dhcpRangeNetworkCidr	String	The CIDR block.	4.0.0
state	String	The state of the deployment network.	4.0.0
createDate	Timestamp	The time when the deployment network was created.	4.0.0
lastOpDate	Timestamp	The time when the deployment network was last modified.	4.0.0
attachedClusterUuids	List		4.0.0

SDK Sample

Java SDK

```
QueryBareMetal2ProvisionNetworkAction action = new QueryBareMetal2ProvisionNetworkAction();
action.conditions = asList("uuid=51b899bda0df3484be1c6bc1fbba68de");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryBareMetal2ProvisionNetworkAction.Result res = action.call();
```

Python SDK

```
QueryBareMetal2ProvisionNetworkAction action = QueryBareMetal2ProvisionNetworkAction()
action.conditions = ["uuid=07e9ed20cfc13057adee51036dc1687e"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryBareMetal2ProvisionNetworkAction.Result res = action.call()
```

5.7.53 ChangeBareMetal2ProvisionNetworkState

API Request

URLs

```
PUT zstack/v1/baremetal2/provision-networks/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeBareMetal2ProvisionNetworkState": {
```

```

    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edeb53ca0678c" \
-X PUT -d '{"changeBareMetal2ProvisionNetworkState":
{"stateEvent":"enable"}}' http://localhost:8080/zstack/v1/baremetal2/
provision-networks/9d2b61e0abba3dd5830fe13bde6fc935/actions

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The deployment network UUID.		4.0.0
stateEvent	String	body(contained in the changeBareMetal2ProvisionNetworkState structure)	The event that changes the state of the chassis.	- enable - disable	4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response**Sample Response**

```

{
  "inventory": {
    "uuid": "0f0a5bd7eaef49d2a4ddff9507afa4e8",
    "zoneUuid": "1d5a403dcfdb4b6fa581540579e5d5cb",
    "name": "BM_PROVISION_NETWORK",

```

```

    "description": "This is a bare metal provision network.",
    "dhcpInterface": "eth0",
    "dhcpRangeStartIp": "192.168.0.10",
    "dhcpRangeEndIp": "192.168.0.100",
    "dhcpRangeNetmask": "255.255.255.0",
    "dhcpRangeGateway": "192.168.0.1",
    "dhcpRangeNetworkCidr": "192.168.0.10/24",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ProvisionNetworkInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.0.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The deployment network UUID.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the deployment network.	4.0.0
description	String	The detailed description of the deployment network.	4.0.0
dhcpInterface	String	The name of the DHCP NIC.	4.0.0
dhcpRangeStartIp	String	The starting IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeEndIp	String	The ending IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeNetmask	String	The netmask of the IP range from which the DHCP server assigns an IP address to a bare metal instance.	4.0.0
dhcpRangeGateway	String	The gateway IP address.	4.0.0
dhcpRangeNetworkCidr	String	The CIDR block.	4.0.0
state	String	The state of the deployment network.	4.0.0
createDate	Timestamp	The time when the deployment network was created.	4.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the deployment network was last modified.	4.0.0
attachedClusterUuids	List		4.0.0

SDK Sample

Java SDK

```
ChangeBareMetal2ProvisionNetworkStateAction action = new ChangeBareMetal2ProvisionNetworkStateAction();
action.uuid = "9d2b61e0abba3dd5830fe13bde6fc935";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeBareMetal2ProvisionNetworkStateAction.Result res = action.call();
```

Python SDK

```
ChangeBareMetal2ProvisionNetworkStateAction action = ChangeBareMetal2ProvisionNetworkStateAction()
action.uuid = "9d2b61e0abba3dd5830fe13bde6fc935"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeBareMetal2ProvisionNetworkStateAction.Result res = action.call()
```

5.7.54 AttachBareMetal2ProvisionNetworkToCluster

API Request

URLs

```
POST zstack/v1/baremetal2/clusters/{clusterUuid}/provision-networks/{networkUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' \
http://localhost:8080/zstack/v1/baremetal2/
clusters/2ed064d2addf3644bdd69aaa187c0ca9/provision-networks/
ce03631365e0340bbd99a0092508abff
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
clusterUuid	String	url	The cluster UUID.		4.0.0
networkUuid	String	url	The deployment network UUID.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "bc86a5d650424baaab9f875bfe3337bd",
    "zoneUuid": "3f7405e07ab54cd9bdcfa6008c398be1",
    "name": "BM_PROVISION_NETWORK",
    "description": "This is a bare metal provision network.",
    "dhcpInterface": "eth0",
    "dhcpRangeStartIp": "192.168.0.10",
    "dhcpRangeEndIp": "192.168.0.100",
    "dhcpRangeNetmask": "255.255.255.0",
    "dhcpRangeGateway": "192.168.0.1",
    "dhcpRangeNetworkCidr": "192.168.0.10/24",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ProvisionNetworkInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The deployment network UUID.	4.0.0

Name	Type	Description	Starting Version
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the deployment network.	4.0.0
description	String	The detailed description of the deployment network.	4.0.0
dhcpInterface	String	The name of the DHCP NIC.	4.0.0
dhcpRangeStartIp	String	The starting IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeEndIp	String	The ending IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeNetmask	String	The netmask of the IP range from which the DHCP server assigns an IP address to a bare metal instance.	4.0.0
dhcpRangeGateway	String	The gateway IP address.	4.0.0
dhcpRangeNetworkCidr	String	The CIDR block.	4.0.0
state	String	The state of the deployment network.	4.0.0
createDate	Timestamp	The time when the deployment network was created.	4.0.0
lastOpDate	Timestamp	The time when the deployment network was last modified.	4.0.0
attachedClusterUuids	List		4.0.0

SDK Sample

Java SDK

```
AttachBareMetal2ProvisionNetworkToClusterAction action = new
AttachBareMetal2ProvisionNetworkToClusterAction();
action.clusterUuid = "2ed064d2addf3644bdd69aaa187c0ca9";
action.networkUuid = "ce03631365e0340bbd99a0092508abff";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachBareMetal2ProvisionNetworkToClusterAction.Result res = action.
call();
```

Python SDK

```
AttachBareMetal2ProvisionNetworkToClusterAction action = AttachBare
Metal2ProvisionNetworkToClusterAction()
action.clusterUuid = "2ed064d2addf3644bdd69aaa187c0ca9"
action.networkUuid = "ce03631365e0340bbd99a0092508abff"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachBareMetal2ProvisionNetworkToClusterAction.Result res = action.
call()
```

5.7.55 DetachBareMetal2ProvisionNetworkFromCluster

API Request

URLs

```
DELETE zstack/v1/baremetal2/clusters/{clusterUuid}/provision-networks/
{networkUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/baremetal2/
clusters/06c9bd8a09e83fb192e26b774212a4d5/provision-
networks/3800bd5ce801397eb9a4a7a0a9f169f3
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
clusterUuid	String	url	The cluster UUID.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
networkUuid	String	url	The deployment network UUID.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "36c2f908644340128807eb1e55f59858",
    "zoneUuid": "a388561312514f43b10f8a335bfe3403",
    "name": "BM_PROVISION_NETWORK",
    "description": "This is a bare metal provision network.",
    "dhcpInterface": "eth0",
    "dhcpRangeStartIp": "192.168.0.10",
    "dhcpRangeEndIp": "192.168.0.100",
    "dhcpRangeNetmask": "255.255.255.0",
    "dhcpRangeGateway": "192.168.0.1",
    "dhcpRangeNetworkCidr": "192.168.0.10/24",
    "state": "Enabled",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	BareMetal2ProvisionNetworkInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	4.0.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The deployment network UUID.	4.0.0
zoneUuid	String	The zone UUID.	4.0.0
name	String	The name of the deployment network.	4.0.0
description	String	The detailed description of the deployment network.	4.0.0
dhcpInterface	String	The name of the DHCP NIC.	4.0.0
dhcpRangeStartIp	String	The starting IP address that DHCP assigns to a bare metal instance.	4.0.0

Name	Type	Description	Starting Version
dhcpRangeEndIp	String	The ending IP address that DHCP assigns to a bare metal instance.	4.0.0
dhcpRangeNetmask	String	The netmask of the IP range from which the DHCP server assigns an IP address to a bare metal instance.	4.0.0
dhcpRangeGateway	String	The gateway IP address.	4.0.0
dhcpRangeNetworkCidr	String	The CIDR block.	4.0.0
state	String	The state of the deployment network.	4.0.0
createDate	Timestamp	The time when the deployment network was created.	4.0.0
lastOpDate	Timestamp	The time when the deployment network was last modified.	4.0.0
attachedClusterUuids	List		4.0.0

SDK Sample

Java SDK

```
DetachBareMetal2ProvisionNetworkFromClusterAction action = new
DetachBareMetal2ProvisionNetworkFromClusterAction();
action.clusterUuid = "06c9bd8a09e83fb192e26b774212a4d5";
action.networkUuid = "3800bd5ce801397eb9a4a7a0a9f169f3";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachBareMetal2ProvisionNetworkFromClusterAction.Result res = action.
call();
```

Python SDK

```
DetachBareMetal2ProvisionNetworkFromClusterAction action = DetachBare
Metal2ProvisionNetworkFromClusterAction()
action.clusterUuid = "06c9bd8a09e83fb192e26b774212a4d5"
action.networkUuid = "3800bd5ce801397eb9a4a7a0a9f169f3"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DetachBareMetal2ProvisionNetworkFromClusterAction.Result res = action.call()
```

5.7.56 GetBareMetal2ProvisionNetworkIpAddressCapacity

API Request

URLs

```
GET zstack/v1/baremetal2/provision-networks/ip-capacity
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/baremetal2/provision-networks/ip-capacity?networkUuids=f9c4c95cf7f43f6eaf7af5e7b3715c60
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
networkUuids	List	query	The deployment network UUIDs.		4.0.0
systemTags	List	query	Optional. The system tags.		4.0.0
userTags	List	query	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "capacityData": [
    {
      "networkUuid": "da4ac0c888fc34b399a343140780a627",
      "totalCapacity": 100.0,
      "availableCapacity": 50.0,
      "gatewayUsedIpNumber": 10.0,
      "instanceUsedIpNumber": 40.0
    }
  ]
}
```

}

Name	Type	Description	Starting Version
success	boolean	Indicates that the API request succeeded.	4.0.0
capacityData	List	See capacityData .	4.0.0
error	ErrorCode	See error .	4.0.0

#capacityData

Name	Type	Description	Starting Version
networkUuid	String	The deployment network UUID.	4.0.0
totalCapacity	long	The total number of IP addresses in the deployment network.	4.0.0
availableCapacity	long	The available number of IP addresses in the deployment network.	4.0.0
gatewayUsedIpNumber	long	The number of IP addresses used by gateways in the deployment network.	4.0.0
instanceUsedIpNumber	long	The number of IP addresses used by bare metal instances in the deployment network.	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

SDK Sample

Java SDK

```
GetBareMetal2ProvisionNetworkIpAddressCapacityAction action = new
GetBareMetal2ProvisionNetworkIpAddressCapacityAction();
action.networkUuids = asList("f9c4c95cf7f43f6eaf7af5e7b3715c60");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetBareMetal2ProvisionNetworkIpAddressCapacityAction.Result res =
action.call();
```

Python SDK

```
GetBareMetal2ProvisionNetworkIpAddressCapacityAction action =
GetBareMetal2ProvisionNetworkIpAddressCapacityAction()
action.networkUuids = [f9c4c95cf7f43f6eaf7af5e7b3715c60]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetBareMetal2ProvisionNetworkIpAddressCapacityAction.Result res =
action.call()
```

5.8 VMware Management

5.8.1 vCenter Operations

The VMware Management feature is provided in a separate module. Before you can use this feature, you need to purchase the Plus License of VMware Management, in addition to the Base License.

5.8.1.1 AddVCenter

API Request

URLs

```
POST zstack/v1/vcenters
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "username": "admin@vsphere-local.net",
    "password": "test-pass",
    "zoneUuid": "25b9e68b1cc43836a79f1a35e3108880",
    "name": "vc1",
    "https": true,
    "domainName": "vsphere-local.net"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"username":"admin@vsphere-local.net", "password":"test-pass", "zoneUuid":"25b9e68b1cc43836a79f1a35e3108880", "name":"vc1", "https":true, "domainName":"vsphere-local.net"}}' \
http://localhost:8080/zstack/v1/vcenters
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
username	String	body (contained in the params structure)	The user name used to log in to the vCenter.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
password	String	body (contained in the params structure)	The password used to log in to the vCenter.		0.6
zoneUuid	String	body (contained in the params structure)	The UUID of the zone to which the vCenter is added.		0.6
name	String	body (contained in the params structure)	The name of the vCenter.		0.6
https	boolean	body (contained in the params structure)	Optional. Whether to enable HTTPS login . By default, HTTPS login is enabled.		0.6
domainName	String	body (contained in the params structure)	The domain name of the vCenter.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the vCenter.		0.6
resourceUuid	String	body (contained in the params structure)	Optional. The vCenter UUID. If specified, the VM instance will use the specified value as the UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6
port	Integer	body (contained in the params structure)	Optional.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1497ae9206ea3f82bb13c34c307299b9",
    "name": "vc1",
    "domainName": "vsphere-local.net",
    "userName": "admin@vsphere-local.net",
    "https": true,
    "state": "Enabled",
    "status": "Connected"
  },
  "skippedResources": {
    "vmInstances": [
      {
        "uuid": "example",
        "name": "exampleVm"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.3
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	VCenterInventory	See inventory .	0.6
skippedResources	SkippedResources	For more information, see skippedResources .	4.5.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
domainName	String		0.6
port	Integer		0.6
userName	String		0.6
zoneUuid	String	The zone UUID.	0.6
https	Boolean		0.6
state	String		0.6

Name	Type	Description	Starting Version
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#skippedResources

Name	Type	Description	Starting Version
vmInstances	Set	For more information, see vmInstances .	4.5.3

#vmInstances

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
name	String	The resource name.	4.5.3
description	String	The detailed description of the resource.	4.5.3
zoneUuid	String	The zone UUID.	4.5.3
clusterUuid	String	The cluster UUID.	4.5.3
imageUuid	String	The image UUID.	4.5.3
hostUuid	String	The host UUID.	4.5.3
lastHostUuid	String		4.5.3
instanceOfferingUuid	String	The instance offering UUID.	4.5.3
rootVolumeUuid	String	The root volume UUID.	4.5.3
platform	String		4.5.3
architecture	String	The architecture type.	4.5.3
defaultL3NetworkUuid	String		4.5.3
type	String		4.5.3
hypervisorType	String		4.5.3
memorySize	Long		4.5.3

Name	Type	Description	Starting Version
cpuNum	Integer		4.5.3
cpuSpeed	Long		4.5.3
allocatorStrategy	String		4.5.3
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time.	4.5.3
state	String		4.5.3
guestOsType	String	The operating system type.	4.5.3
vmNics	List	For more information, see vmNics .	4.5.3
allVolumes	List	For more information, see allVolumes .	4.5.3
vmCdRoms	List	For more information, see vmCdRoms .	4.5.3

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
vmInstanceUuid	String	The VM instance UUID.	4.5.3
l3NetworkUuid	String	The L3 network UUID.	4.5.3
ip	String	The IP address.	4.5.3
mac	String	The MAC address.	4.5.3
hypervisorType	String	The hypervisor type.	4.5.3
netmask	String	The sub network mask.	4.5.3
gateway	String	The gateway.	4.5.3
metaData	String		4.5.3
ipVersion	Integer	The IP address.	4.5.3
deviceId	Integer	The device ID.	4.5.3
type	String	The NIC type.	4.5.3

Name	Type	Description	Starting Version
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time .	4.5.3
usedIps	List	For more information, see usedIps .	4.5.3

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
ipRangeUuid	String	The IP range UUID.	4.5.3
l3NetworkUuid	String	The L3 network UUID.	4.5.3
ipVersion	Integer	The IP version.	4.5.3
ip	String	The IP address.	4.5.3
netmask	String	The network mask.	4.5.3
gateway	String	The gateway address	4.5.3
usedFor	String		4.5.3
ipInLong	long		4.5.3
vmNicUuid	String	The UUID of the VM instance NIC.	4.5.3
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time .	4.5.3

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
name	String	The resource name.	4.5.3
description	String	The detailed descriptio n of the resource.	4.5.3
primaryStorageUuid	String	The primary storage UUID.	4.5.3

Name	Type	Description	Starting Version
vmInstanceUuid	String	The VM instance UUID.	4.5.3
diskOfferingUuid	String	The disk offering UUID.	4.5.3
rootImageUuid	String	The root image UUID.	4.5.3
installPath	String	The mount path of the volume on the primary storage.	4.5.3
type	String	The volume type, including data volume and root volume.	4.5.3
format	String	The volume format.	4.5.3
size	Long	The volume size.	4.5.3
actualSize	Long	The volume actual size.	4.5.3
deviceId	Integer		4.5.3
state	String	The running state of the volume.	4.5.3
status	String	The ready status of the volume.	4.5.3
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time.	4.5.3
isShareable	Boolean	The sharing mode of the volume.	4.5.3
volumeQos	String	The volume QoS. Syntax sample: total=1048576	4.5.3

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
vmInstanceUuid	String	The VM instance UUID.	4.5.3

Name	Type	Description	Starting Version
deviceId	Integer	The drive sequence number.	4.5.3
isoUuid	String	The ISO image UUID.	4.5.3
isoInstallPath	String	The mount path of the ISO image.	4.5.3
name	String	The resource name.	4.5.3
description	String	The detailed description of the resource.	4.5.3
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time.	4.5.3

SDK Sample

Java SDK

```
AddVCenterAction action = new AddVCenterAction();
action.username = "admin@vsphere-local.net";
action.password = "test-pass";
action.zoneUuid = "25b9e68b1cc43836a79f1a35e3108880";
action.name = "vc1";
action.https = true;
action.domainName = "vsphere-local.net";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddVCenterAction.Result res = action.call();
```

Python SDK

```
AddVCenterAction action = AddVCenterAction()
action.username = "admin@vsphere-local.net"
action.password = "test-pass"
action.zoneUuid = "25b9e68b1cc43836a79f1a35e3108880"
action.name = "vc1"
action.https = true
action.domainName = "vsphere-local.net"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddVCenterAction.Result res = action.call()
```

5.8.1.2 QueryVCenter

API Request

URLs

```
GET zstack/v1/vcenters
```

```
GET zstack/v1/vcenters/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e46c3ba50f324bcbabda6c40d11d1e33" \
-X GET http://localhost:8080/zstack/v1/vcenters?
q=uuid=7e580c2f8b6c4e31aff447c45c72c3bb
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth d0552ed3feb243a1b87fcff421388964" \
-X GET http://localhost:8080/zstack/v1/vcenters/
bb39998d05004cd9aa5bf816cc308ed1
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVCenter`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "b84429ea486d3e878afd4175bff667e0",
      "name": "vc1",
      "domainName": "vsphere-local.net",
      "userName": "admin@vsphere-local.net",
      "version": "6.0.0",
      "https": true,
      "state": "Enabled",
      "status": "Connected"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventories	List	See inventories .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
domainName	String		3.9.0
port	Integer		3.9.0
userName	String		3.9.0
zoneUuid	String	The zone UUID.	3.9.0
version	String	The vCenter version.	3.9.0
https	Boolean		3.9.0
state	String		3.9.0

Name	Type	Description	Starting Version
status	String		3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0

SDK Sample

Java SDK

```
QueryVCenterAction action = new QueryVCenterAction();
action.conditions = asList("uuid=70118e1db5084255a0e44c7af24d57b7");
action.sessionId = "10dbde6695b74150878bec7cbe97eda5";
QueryVCenterAction.Result res = action.call();
```

Python SDK

```
QueryVCenterAction action = QueryVCenterAction()
action.conditions = ["uuid=4e5f668c85be4bb4a1b5990611ad806b"]
action.sessionId = "708e5e17b29a4527a8480faadd49fdbbc"
QueryVCenterAction.Result res = action.call()
```

5.8.1.3 DeleteVCenter

API Request

URLs

```
DELETE zstack/v1/vcenters/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth cf9047b652144c11b62e7176eef5540b" \
-X DELETE http://localhost:8080/zstack/v1/vcenters/
cd00a732974e4ca99886338bac41d511?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The vCenter UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
deleteMode	String	url	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVCenterAction action = new DeleteVCenterAction();
action.uuid = "17ab65db07b04666ad8eef6158e7532f";
action.deleteMode = "Permissive";
action.sessionId = "e8e3599ce54c41a4b5ff3322d2479844";
DeleteVCenterAction.Result res = action.call();
```

Python SDK

```
DeleteVCenterAction action = DeleteVCenterAction()
action.uuid = "f516dab538a64c5a9f0f2a55141ae439"
action.deleteMode = "Permissive"
action.sessionId = "aca4acf373b04a2fb1ad1112f540b1b3"
```

```
DeleteVCenterAction.Result res = action.call()
```

5.8.1.4 UpdateVCenter

API Request

URLs

```
PUT zstack/v1/vcenters/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVCenter": {
    "name": "Test-VCenter",
    "description": "Test-Description",
    "username": "Test-Username",
    "password": "Test-Password",
    "domainName": "Test-DomainName",
    "port": 443
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVCenter":{"name":"Test-VCenter","description":"Test-Description","username":"Test-Username","password":"Test-Password","domainName":"Test-DomainName","port":443.0}}' \
http://localhost:8080/zstack/v1/vcenters/08a6059f054a3866abf6302b6461e340/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3.2

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the updateVCen ter structure)	Optional. The resource name.		2.3.2
description	String	body (contained in the updateVCen ter structure)	Optional. The detailed description of the resource.		2.3.2
username	String	body (contained in the updateVCen ter structure)	Optional.		2.3.2
password	String	body (contained in the updateVCen ter structure)	Optional.		2.3.2
domainName	String	body (contained in the updateVCen ter structure)	Optional.		2.3.2
port	Integer	body (contained in the updateVCen ter structure)	Optional.		2.3.2
state	String	body (contained in the updateVCen ter structure)	Optional. VCenter Enable Status.		4.8.0
systemTags	List	body	Optional. The system tags.		2.3.2

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		2.3.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "6c42846814243c408a225e3738a2440f",
    "name": "Test-VCenter",
    "description": "Test-Description",
    "domainName": "Test-DomainName",
    "userName": "Test-Username",
    "password": "Test-Password"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.8.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3.2
inventory	VCenterInventory	See inventory .	2.3.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
domainName	String		0.6
port	Integer		0.6
userName	String		0.6
zoneUuid	String	The zone UUID.	0.6
https	Boolean		0.6
state	String		0.6
status	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateVCenterAction action = new UpdateVCenterAction();
action.uuid = "08a6059f054a3866abf6302b6461e340";
action.name = "Test-VCenter";
action.description = "Test-Description";
action.username = "Test-Username";
```

```

action.password = "Test-Password";
action.domainName = "Test-DomainName";
action.port = 443;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVCenterAction.Result res = action.call();

```

Python SDK

```

UpdateVCenterAction action = UpdateVCenterAction()
action.uuid = "08a6059f054a3866abf6302b6461e340"
action.name = "Test-VCenter"
action.description = "Test-Description"
action.username = "Test-Username"
action.password = "Test-Password"
action.domainName = "Test-DomainName"
action.port = 443
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVCenterAction.Result res = action.call()

```

5.8.1.5 SyncVCenter

API Request

URLs

```
PUT zstack/v1/vcenters/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "syncVCenter": {},
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncVCenter":{}}' \
http://localhost:8080/zstack/v1/vcenters/
ada8b8f96b3033bc9420c13bba7d51b9/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The vCenter UUID.		2.2
systemTags	List	body	Optional. The system tags.		2.2
userTags	List	body	Optional. The user tags.		2.2

API Response

Sample Response

```
{
  "skippedResources": {
    "vmInstances": [
      {
        "uuid": "example",
        "name": "exampleVm"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.3
skippedResources	SkippedResources	For more information, see skippedResources .	4.5.3
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.3

#skippedResources

Name	Type	Description	Starting Version
vmInstances	Set	For more information, see vmInstances .	4.5.3

#vmInstances

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
name	String	The resource name.	4.5.3
description	String	The detailed description of the resource.	4.5.3
zoneUuid	String	The zone UUID.	4.5.3
clusterUuid	String	The cluster UUID.	4.5.3
imageUuid	String	The image UUID.	4.5.3
hostUuid	String	The host UUID.	4.5.3
lastHostUuid	String		4.5.3
instanceOfferingUuid	String	The instance offering UUID.	4.5.3
rootVolumeUuid	String	The root volume UUID.	4.5.3
platform	String		4.5.3
architecture	String	The architecture type.	4.5.3
defaultL3NetworkUuid	String		4.5.3
type	String		4.5.3
hypervisorType	String		4.5.3
memorySize	Long		4.5.3
cpuNum	Integer		4.5.3
cpuSpeed	Long		4.5.3
allocatorStrategy	String		4.5.3
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time.	4.5.3
state	String		4.5.3
guestOsType	String	The operating system type.	4.5.3
vmNics	List	For more information, see vmNics .	4.5.3

Name	Type	Description	Starting Version
allVolumes	List	For more information, see allVolumes .	4.5.3
vmCdRoms	List	For more information, see vmCdRoms .	4.5.3

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
vmInstanceUuid	String	The VM instance UUID.	4.5.3
l3NetworkUuid	String	The L3 network UUID.	4.5.3
ip	String	The IP address.	4.5.3
mac	String	The MAC address.	4.5.3
hypervisorType	String	The hypervisor type.	4.5.3
netmask	String	The sub network mask .	4.5.3
gateway	String	The gateway.	4.5.3
metaData	String		4.5.3
ipVersion	Integer	The IP address.	4.5.3
deviceId	Integer	The device ID.	4.5.3
type	String	The NIC type.	4.5.3
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time .	4.5.3
usedIps	List	For more information, see usedIps .	4.5.3

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
ipRangeUuid	String	The IP range UUID.	4.5.3

Name	Type	Description	Starting Version
I3NetworkUuid	String	The L3 network UUID.	4.5.3
ipVersion	Integer	The IP version.	4.5.3
ip	String	The IP address.	4.5.3
netmask	String	The network mask.	4.5.3
gateway	String	The gateway address	4.5.3
usedFor	String		4.5.3
ipInLong	long		4.5.3
vmNicUuid	String	The UUID of the VM instance NIC.	4.5.3
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time	4.5.3

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
name	String	The resource name.	4.5.3
description	String	The detailed description of the resource.	4.5.3
primaryStorageUuid	String	The primary storage UUID.	4.5.3
vmInstanceUuid	String	The VM instance UUID.	4.5.3
diskOfferingUuid	String	The disk offering UUID	4.5.3
rootImageUuid	String	The root image UUID.	4.5.3
installPath	String	The mount path of the volume on the primary storage.	4.5.3
type	String	The volume type, including data volume and root volume.	4.5.3

Name	Type	Description	Starting Version
format	String	The volume format.	4.5.3
size	Long	The volume size.	4.5.3
actualSize	Long	The volume actual size.	4.5.3
deviceId	Integer		4.5.3
state	String	The running state of the volume.	4.5.3
status	String	The ready status of the volume.	4.5.3
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time.	4.5.3
isShareable	Boolean	The sharing mode of the volume.	4.5.3
volumeQos	String	The volume QoS. Syntax sample: total=1048576	4.5.3

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.3
vmInstanceUuid	String	The VM instance UUID.	4.5.3
deviceId	Integer	The drive sequence number.	4.5.3
isoUuid	String	The ISO image UUID.	4.5.3
isoInstallPath	String	The mount path of the ISO image.	4.5.3
name	String	The resource name.	4.5.3
description	String	The detailed description of the resource.	4.5.3
createDate	Timestamp	The creation time.	4.5.3
lastOpDate	Timestamp	The last operation time.	4.5.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.3
description	String	The brief description of the error.	4.5.3
details	String	The details about the error.	4.5.3
elaboration	String	The reserved field. Default value: null.	4.5.3
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.3

SDK Sample

Java SDK

```
SyncVCenterAction action = new SyncVCenterAction();
action.uuid = "ada8b8f96b3033bc9420c13bba7d51b9";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SyncVCenterAction.Result res = action.call();
```

Python SDK

```
SyncVCenterAction action = SyncVCenterAction()
action.uuid = "ada8b8f96b3033bc9420c13bba7d51b9"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SyncVCenterAction.Result res = action.call()
```

5.8.1.6 QueryVCenterCluster

API Request

URLs

```
GET zstack/v1/vcenters/clusters
GET zstack/v1/vcenters/clusters/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b4ad190088e14bb89ad9594fd311a9b9" \
-X GET http://localhost:8080/zstack/v1/vcenters/clusters?
q=uuid=82019f6ef752427480de4812339149bd
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e2545e88cc674f52bb6d9dd3954e8ea7" \
-X GET http://localhost:8080/zstack/v1/vcenters/clusters/
ccf3e1c048d84ebbad90802a7bd0907c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVCenterCluster`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "vCenterUuid": "c5198b0ec6b0364297a3c42b195c3e31",
      "morval": "Test-morval",
      "dataCenterUuid": "96dfe6e8f3ba3b159c3531cd3d50d298",
      "name": "Test-name",
      "uuid": "d76f19f8e136386b815be9839a100b1c",
      "description": "Test-description",
      "state": "Enabled",
      "hypervisorType": "ESX",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM",
      "zoneUuid": "ecd7aeb8347d3fca8e3f455da531e4f1",
      "type": "vmware"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventories	List	See inventories .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventories

Name	Type	Description	Starting Version
vCenterUuid	String	The vCenter UUID.	3.9.0
dataCenterUuid	String	The data center UUID.	3.9.0

Name	Type	Description	Starting Version
morval	String	The morval.	3.9.0
name	String	The resource name.	3.9.0
uuid	String	The resource UUID.	3.9.0
description	String	The detailed description of the resource.	3.9.0
state	String	The state.	3.9.0
hypervisorType	String	The hypervisor type.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
zoneUuid	String	The zone UUID.	3.9.0
type	String	The cluster type.	3.9.0

SDK Sample

Java SDK

```
QueryVCenterClusterAction action = new QueryVCenterClusterAction();
action.conditions = asList("uuid=1197f1e666b24da9b96ca15b76d23029");
action.sessionId = "833bf9348c13481792af75ade4d2d0fb";
QueryVCenterClusterAction.Result res = action.call();
```

Python SDK

```
QueryVCenterClusterAction action = QueryVCenterClusterAction()
action.conditions = ["uuid=99e19ea5de35490f8f78f2b2c54e867b"]
action.sessionId = "bbfbaeaa067840879cbc285146514152"
QueryVCenterClusterAction.Result res = action.call()
```

5.8.1.7 QueryVCenterPrimaryStorage

API Request

URLs

```
GET zstack/v1/vcenters/primary-storage
```

```
GET zstack/v1/vcenters/primary-storage/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 0d623b631fd7402d83b9ff2b25bdd831" \
-X GET http://localhost:8080/zstack/v1/vcenters/primary-storage?
q=uuid=981850c9581d4ffb9df096112f902031
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth c9d5f42a19d745c6928da0cd5325e1d6" \
-X GET http://localhost:8080/zstack/v1/vcenters/primary-storage/
d51815cfb0974e168f18578618474f75
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVCenterPrimaryStorage`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryVCenterPrimaryStorageAction action = new QueryVCenterPrimaryS
torageAction();
action.conditions = asList("uuid=252afc9b92b34337adda34baa66f41c4");
action.sessionId = "0574d9e353cb434cb8873871d6c312ba";
QueryVCenterPrimaryStorageAction.Result res = action.call();
```

Python SDK

```
QueryVCenterPrimaryStorageAction action = QueryVCenterPrimaryS
torageAction()
action.conditions = ["uuid=9fad4c72758b46d38c0866e460ef4b46"]
action.sessionId = "ceba885251524d33a45220db9b465a9e"
```



```
QueryVCenterPrimaryStorageAction.Result res = action.call()
```

5.8.1.8 QueryVCenterBackupStorage

API Request

URLs

```
GET zstack/v1/vcenters/backup-storage
GET zstack/v1/vcenters/backup-storage/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 7ef3836bac52419aad77c40b44fffb75" \
-X GET http://localhost:8080/zstack/v1/vcenters/backup-storage?
q=uuid=5557b285420b48b0b8c9bcea75b8b118
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 5176427af8404b40b3fdc2faa26790d1" \
-X GET http://localhost:8080/zstack/v1/vcenters/backup-
storage/59ca8b1caccf41eca787b0fbd354bde9
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryVCenterBackupStorage`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryVCenterBackupStorageAction action = new QueryVCenterBackupStorageAction();
action.conditions = asList("uuid=7557d599e0204b11b4dbf0d1dca47218");
action.sessionId = "76854653db20477199d441bc07a74552";
```

```
QueryVCenterBackupStorageAction.Result res = action.call();
```

Python SDK

```
QueryVCenterBackupStorageAction action = QueryVCenterBackupStorageAction()
action.conditions = ["uuid=ea80ba3ee9de4938a148d5b29fdc1780"]
action.sessionId = "365e725adbea460b9352adf7848a7026"
QueryVCenterBackupStorageAction.Result res = action.call()
```

5.8.1.9 QueryVCenterResourcePool

API Request

URLs

```
GET zstack/v1/vcenters/clusters/resourcepools
```

```
GET zstack/v1/vcenters/clusters/resourcepools/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vcenters/clusters/resourcepools?q=uuid=a52728c900cc3000990c379962d72eaf
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vcenters/clusters/resourcepools/06c28743a1523c7285d6782624bf93ad
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVCenterResourcePool**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "7b2495fb762a3e539d078fa6339523e3",
      "vCenterClusterUuid": "3cbf58119aaa3d9e9aa12011070e1055",
      "name": "resource-pool-1",
      "morVal": "Mor-Val-1",
      "CPULimit": 1.0E9,

```

```

    "CPUOverheadLimit": -1.0,
    "CPUReservation": 5.0E8,
    "CPUShares": 1000.0,
    "CPULevel": "green",
    "memoryLimit": 1.073741824E9,
    "memoryOverheadLimit": -1.0,
    "memoryReservation": 5.24288E8,
    "memoryShares": 1000.0,
    "memoryLevel": "green",
    "subResources": [
      {
        "uuid": "4b271fc9805638f2bd95e826376ba7e7",
        "vCenterResourcePoolUuid": "7b2495fb762a3e539d078fa6339523e3
    ",
        "resourceUuid": "8ba5ebb4c49d378982190f2e0ec93001",
        "resourceType": "VmInstanceV0"
      }
    ]
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.3.0
inventories	List	See inventories .	3.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.3.0
description	String	The brief description of the error.	3.3.0
details	String	The details about the error.	3.3.0
elaboration	String	The reserved field. Default value: null.	3.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.3.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.3.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.3.0
vCenterClusterUuid	String		3.3.0
name	String	The resource name.	3.3.0
morVal	String		3.3.0
parentUuid	String		3.3.0
CPULimit	Long		3.3.0
CPUOverheadLimit	Long		3.3.0
CPUReservation	Long		3.3.0
CPUShares	Long		3.3.0
CPULevel	String		3.3.0
memoryLimit	Long		3.3.0
memoryOverheadLimit	Long		3.3.0
memoryReservation	Long		3.3.0
memoryShares	Long		3.3.0
memoryLevel	String		3.3.0
createDate	Timestamp	The creation date.	3.3.0
lastOpDate	Timestamp	The last operation date.	3.3.0
subResources	List	See subResources .	3.3.0

#subResources

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.3.0
vCenterResourcePoolUuid	String		3.3.0
resourceUuid	String		3.3.0
resourceType	String		3.3.0
createDate	Timestamp	The creation date.	3.3.0
lastOpDate	Timestamp	The last operation date.	3.3.0

SDK Sample

Java SDK

```
QueryVCenterResourcePoolAction action = new QueryVCenterResourcePoolAction();
action.conditions = asList("uuid=0a60a64e4bdf3dc2b4df3ac7b60a9824");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVCenterResourcePoolAction.Result res = action.call();
```

Python SDK

```
QueryVCenterResourcePoolAction action = QueryVCenterResourcePoolAction()
action.conditions = ["uuid=f73ce0f7806a3a39a9119a4b38bd44e5"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVCenterResourcePoolAction.Result res = action.call()
```

6 Platform O&M

6.1 Cloud Monitoring

6.1.1 Monitoring and Alarm/SNS

6.1.1.1 ZWatch Operations

6.1.1.1.1 Metric Operations

6.1.1.1.1.1 GetAllMetricMetadata

API Request

URLs

```
GET zstack/v1/zwatch/metrics/meta-data
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/events/meta-data?
name=VMHAProcess
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	query	Optional. The name of the metric.		3.9.0
namespace	String	query	Optional. The namespace of the metric.		3.9.0
systemTags	List	query	Optional. The system tags.		2.3
userTags	List	query	Optional. The system tags.		2.3

API Response

Sample Response

```
{
  "metrics": [
    {
      "namespace": "ZStack/VM",
      "name": "org.zstack.zwatch.datatype.Metric@4efa6b58",
      "description": "CPUIdleUtilization",
      "labelNames": [
        "VMUuid",
        "CPUNum"
      ],
      "driver": "PrometheusDatabaseDriver"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
metrics	List	See metrics .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#metrics

Name	Type	Description	Starting Version
namespace	String	The namespace.	2.3
name	String	The resource name.	2.3
description	String	The description of the metric.	3.9.0
labelNames	List	The label names.	2.3

SDK Sample

Java SDK

```
GetAllMetricMetadataAction action = new GetAllMetricMetadataAction();
action.name = "VMHAProcess";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetAllMetricMetadataAction.Result res = action.call();
```

Python SDK

```
GetAllMetricMetadataAction action = GetAllMetricMetadataAction()
action.name = "VMHAProcess"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
GetAllMetricMetadataAction.Result res = action.call()
```

6.1.1.1.2 GetMetricLabelValue

API Request

URLs

```
GET zstack/v1/zwatch/metrics/label-values
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/
zwatch/metrics/label-values?namespace=ZStack/
VM&metricName=CPUIIdleUtilization&startTime=1.58806818E9&endTime=1.58806824E9&labelNames=
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
namespace	String	query	The namespace.		2.3
metricName	String	query	The metric name.		2.3
labelNames	List	query	The name list of the target labels.		2.3
filterLabels	List	query	Optional. The label filter list. For example, you can set the HostUuid label to e47f7145f4cd4fca8e2856038ecd3e1 to filter values specified in labelNames.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
startTime	Long	query	Optional. The start time.		3.9.0
endTime	Long	query	Optional. The end time.		3.9.0
systemTags	List	query	Optional. The system tags.		2.3
userTags	List	query	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "labels": [
    {
      "VMUuid": "e47f7145f4cd4fca8e2856038ecdf3e1",
      "CPUNum": "1"
    }
  ]
}
```

Name	Type	Description	Starting Version
labels	List	The label values.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetMetricLabelValueAction action = new GetMetricLabelValueAction();
action.namespace = "ZStack/VM";
action.metricName = "CPUIdleUtilization";
action.startTime = 1.58806818E9;
action.endTime = 1.58806824E9;
action.labelNames = asList("CPUNum");
action.filterLabels = asList("VMUuid=e47f7145f4cd4fca8e2856038ecdf3e1");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetMetricLabelValueAction.Result res = action.call();
```

Python SDK

```
GetMetricLabelValueAction action = GetMetricLabelValueAction()
action.namespace = "ZStack/VM"
action.metricName = "CPUIdleUtilization"
action.startTime = 1.58806818E9
action.endTime = 1.58806824E9
action.labelNames = [CPUNum]
action.filterLabels = [VMUuid=e47f7145f4cd4fca8e2856038ecdf3e1]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetMetricLabelValueAction.Result res = action.call()
```

6.1.1.1.3 GetMetricData

API Request

URLs

```
GET zstack/v1/zwatch/metrics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/metrics?
namespace=ZStack/
VM&metricName=CPUIdleUtilization&startTime=1.588831825415E12&period=30.0&labels=V
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
namespace	String	query	The namespace.		2.3
metricName	String	query	The metric name.		2.3
startTime	Long	query	Optional. The start time.		2.3
endTime	Long	query	Optional. The end time.		2.3
period	Integer	query	Optional. The interval for returning data.		2.3
labels	List	query	Optional. The filter labels.		2.3
systemTags	List	query	Optional. The system tags.		2.3
userTags	List	query	Optional. The user tags.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
functions	List	query	Optional. The function list.		2.3
offsetAheadOfCurrentTime	Long	query	Optional.		2.3

API Response

Sample Response

```
{
  "data": [
    {
      "value": 101.02,
      "time": 1.519829245957E12,
      "labels": {
        "VMUuid": "9304ab73d9b84852ad1d5061fd4760a5"
      }
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
data	List	See data .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#data

Name	Type	Description	Starting Version
value	double	The metric value.	0.6
time	long	The time when the record was generated.	0.6
labels	Map	The label values.	0.6

SDK Sample

Java SDK

```
GetMetricDataAction action = new GetMetricDataAction();
action.namespace = "ZStack/VM";
action.metricName = "CPUIdleUtilization";
action.startTime = 1.519829246005E12;
action.period = 30.0;
action.labels = asList("VMUuid=3bb5b754320a4331bd907f10d8683568", "
CPUNum=4");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetMetricDataAction.Result res = action.call();
```

Python SDK

```
GetMetricDataAction action = GetMetricDataAction()
action.namespace = "ZStack/VM"
action.metricName = "CPUIdleUtilization"
action.startTime = 1.519829246005E12
action.period = 30.0
action.labels = [VMUuid=b577cfe6aad447c1b2e793fdc6d7975b, CPUNum=4]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetMetricDataAction.Result res = action.call()
```

6.1.1.1.4 PutMetricData

API Request

URLs

```
POST zstack/v1/zwatch/metrics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "namespace": "MyNameSpace",
    "data": [
      {
        "metricName": "UserDefinedName",
        "value": 100.01,
        "labels": {
          "label1": "value1"
        }
      }
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"namespace":"MyNameSpace","data":
[{"metricName":"UserDefinedName","value":100.01,"labels":
{"label1":"value1"}}]}}' \
http://localhost:8080/zstack/v1/zwatch/metrics
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
namespace	String	body (contained in the params structure)	The custom namespace.		2.3
data	List	body (contained in the params structure)	The data.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
PutMetricDataAction action = new PutMetricDataAction();
action.namespace = "MyNameSpace";
action.data = asList([metricName:UserDefinedName, value:100.01, labels
:[label1:value1]]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PutMetricDataAction.Result res = action.call();
```

Python SDK

```
PutMetricDataAction action = PutMetricDataAction()
action.namespace = "MyNameSpace"
action.data = [[metricName:UserDefinedName, value:100.01, labels:[
label1:value1]]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
PutMetricDataAction.Result res = action.call()
```

6.1.1.1.2 Event Operations

6.1.1.1.2.1 GetAllEventMetadata

API Request

URLs

```
GET zstack/v1/zwatch/events/meta-data
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/events/meta-data
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	query	Optional. The name of the event.		3.9.0
namespace	String	query	Optional. The namespace of the event.		3.9.0
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "events": [
    {
      "namespace": "ZStack/VM",
      "name": "org.zstack.zwatch.datatype.EventFamily@631b5229",
      "description": "VMHAProcess",

```

```

    "labelNames": [
      "HAProcess",
      "HADetails"
    ]
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
events	List	See events .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#events

Name	Type	Description	Starting Version
namespace	String	The namespace.	2.3
name	String	The resource name.	2.3
description	String	The description of the event.	3.9.0
labelNames	List	The label names.	2.3

SDK Sample

Java SDK

```
GetAllEventMetadataAction action = new GetAllEventMetadataAction();
action.name = "VMHAProcess";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetAllEventMetadataAction.Result res = action.call();
```

Python SDK

```
GetAllEventMetadataAction action = GetAllEventMetadataAction()
action.name = "VMHAProcess"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetAllEventMetadataAction.Result res = action.call()
```

6.1.1.1.2.2 GetEventData

API Request

URLs

```
GET zstack/v1/zwatch/events
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/events?
startTime=1.596444516295E12&limit=10.0&conditions=HostUuid=99ca12b945a8489c93a341
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
startTime	Long	query	Optional. The start time.		2.3
endTime	Long	query	Optional. The end time.		2.3
limit	Integer	query	Optional. The maximum number of returned items.		2.3
offsetAheadOfCurrentTime	Long	query	Optional. The offset (in milliseconds) between the query time and the current time. Note that the query time is earlier than the current time. For example, if you query messages collected in the last one hour, 3600000 (the offset) will be transferred to the system.		3.3.0
conditions	List	query	Optional. The filter conditions.		3.3.0
count	boolean	query	Optional. Whether to query the number of events.		3.3.0

Name	Type	Location	Description	Optional Value	Starting Version
endpointUuid	String	query	Optional. Endpoint UUID.		3.3.0
systemTags	List	query	Optional. The system tags.		2.3
userTags	List	query	Optional. The system tags.		2.3

API Response

Sample Response

```
{
  "events": [
    {
      "namespace": "ZStack/VM",
      "name": "org.zstack.zwatch.datatype.EventFamily@2c24d960",
      "labels": {},
      "emergencyLevel": "Normal",
      "resourceId": "b7bbe5fb9ab049c5a36bf8a646471cff",
      "resourceName": "VmInstanceV0",
      "time": 1.596444516324E12
    }
  ]
}
```

Name	Type	Description	Starting Version
total	Long	The number of the events.	3.3.0
success	boolean		3.3.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
events	List	See events .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	2.3

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#events

Name	Type	Description	Starting Version
namespace	String	The namespace.	2.3
name	String	The event name.	2.3
labels	Map	The labels.	2.3
resourceId	String	The UUID of the resource whose event was generated. If not null, the corresponding alarming messages for the associated resources are triggered.	2.3
resourceName	String	The resource name.	2.3
error	String	If the event means the error, this field is the details about the error.	2.3

Name	Type	Description	Starting Version
time	long	The time when the event was triggered.	2.3
dataUuid	String	The data UUID.	3.3
accountUuid	String	The account UUID.	3.3
emergencyLevel	EmergencyLevel	See emergencyLevel .	2.3

#emergencyLevel

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

SDK Sample

Java SDK

```
GetEventDataAction action = new GetEventDataAction();
action.startTime = 1.596444516404E12;
action.limit = 10.0;
action.conditions = asList("HostUuid=00d80d7c47124d6d8e2c7736e9af1c34");
action.count = false;
action.start = 0.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetEventDataAction.Result res = action.call();
```

Python SDK

```
GetEventDataAction action = GetEventDataAction()
action.startTime = 1.596444516405E12
action.limit = 10.0
action.conditions = [HostUuid=7581302347d0439fbdde32b914e2449a]
action.count = false
action.start = 0.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetEventDataAction.Result res = action.call()
```

6.1.1.1.2.3 UpdateEventData

API Request

URLs

```
PUT zstack/v1/zwatch/events/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateEventData": {
    "dataUuid": "a24e9918fdf83d0aae19846bd52411e4",
    "updateMode": "OnlyOne",
    "readStatus": "Read"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateEventData":
{"dataUuid":"a24e9918fdf83d0aae19846bd52411e4","updateMode":"OnlyOne","readStatus":
http://localhost:8080/zstack/v1/zwatch/events/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
dataUuid	String	body (contained in the updateEventData structure)	Optional. The start time of the target messages. Make sure that InRange is transferred to updateMode .		3.3.0
dataStartTime	Long	body (contained in the updateEventData structure)	Optional. The start time of the target messages. Make sure that InRange is transferred to updateMode .		3.3.0
dataEndTime	Long	body (contained in the updateEventData structure)	Optional. The end time of the target messages. Make sure that InRange is transferred to updateMode .		3.3.0
updateMode	String	body (contained in the updateEven	The range of the target messages to	- OnlyOne - InRange - All	3.3.0

Name	Type	Location	Description	Optional Value	Starting Version
		tData structure)	be updated. Options: • OnlyOne: updates only the specified messages. • InRange: updates the messages generated in a specified time range. • All: updates all messages.		
readStatus	String	body (contained in the updateEventData structure)	Optional. The read status of the updated messages.	• Read • Unread	3.3.0
systemTags	List	body	Optional. The system tags.		3.3.0
userTags	List	body	Optional. The user tags.		3.3.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
UpdateEventDataAction action = new UpdateEventDataAction();
action.dataUuid = "a24e9918fdf83d0aae19846bd52411e4";
action.updateMode = "OnlyOne";
action.readStatus = "Read";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateEventDataAction.Result res = action.call();
```

Python SDK

```
UpdateEventDataAction action = UpdateEventDataAction()
action.dataUuid = "a24e9918fdf83d0aae19846bd52411e4"
action.updateMode = "OnlyOne"
action.readStatus = "Read"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateEventDataAction.Result res = action.call()
```

6.1.1.1.3 Alarm Operations

6.1.1.1.3.1 CreateAlarm

API Request

URLs

```
POST zstack/v1/zwatch/alarms
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "VM CPU Alarm",
    "comparisonOperator": "LessThanOrEqualTo",
    "period": 60.0,
    "namespace": "ZStack/VM",
    "metricName": "org.zstack.zwatch.datatype.Metric@c2e79f0",
    "threshold": 60.0,
    "repeatInterval": 1800.0,
    "enableRecovery": true,
    "labels": [
      {
        "key": "VMUuid",
        "value": "c38c7d80b66b4db0a607f80c9e8676a0",
        "op": "Equal"
      }
    ]
  }
},
```

```

    "actions": [
      {
        "actionUuid": "0d0f8958cdb04b1294fb04169c06a096",
        "actionType": "sns"
      }
    ],
    "repeatCount": -1.0,
    "type": "Any"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"VM CPU
Alarm","comparisonOperator":"LessThanOrEqualTo","period":60.0,"namespace":"ZStack
VM","metricName":"org.zstack.zwatch.datatype.Metric@565e1ebe","threshold":60.0,"r
[{"key":"VMUuid","value":"85b0dc413b5040d18d6726f6ae515c42","op":"Equal"}],"actio
[{"actionUuid":"eb00cb48ff0148cbb5358cad4f6f94a0","actionType":"sns"}]"repeatCour
http://localhost:8080/zstack/v1/zwatch/alarms

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.3
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.3
comparison Operator	String	body (contained in the params structure)	The threshold comparison operator.	• GreaterThanOrEqualTo • GreaterThan • LessThan • LessThanOrEqualTo	2.3

Name	Type	Location	Description	Optional Value	Starting Version
period	Integer	body (contained in the params structure)	The threshold duration.		2.3
namespace	String	body (contained in the params structure)	The namespace.		2.3
metricName	String	body (contained in the params structure)	The metric name.		2.3
threshold	Double	body (contained in the params structure)	The threshold.		2.3
repeatInterval	Integer	body (contained in the params structure)	Optional. The alarm repeat interval.		2.3
labels	List	body (contained in the params structure)	Optional. The label list.		2.3
actions	List	body (contained in the params structure)	Optional. The alarm action list.		2.3
resourceUuid	String	body (contained in the params structure)	Optional.		2.3
repeatCount	Integer	body (contained in the params structure)	Optional. The alarm repeat count.		3.3.0

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional. The alarm type.		3.3.0
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
enableRecovery	Boolean	body (contained in the params structure)	Whether to enable the recovery notification.		3.4.0
emergencyLevel	String	body (contained in the params structure)	Optional. The alarm emergency level.	• Emergent • Important • Normal	3.8.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "6ff094db7e8b4640880751c5a17e7b63",
    "name": "VM CPU Alarm",
    "comparisonOperator": "LessThanOrEqualTo",
    "period": 60.0,
    "namespace": "ZStack/VM",
    "metricName": "org.zstack.zwatch.datatype.Metric@c2e79f0",
    "threshold": 30.0,
    "repeatInterval": 1800.0,
    "repeatCount": -1.0,
    "status": "Alarm",
    "state": "Enabled",
    "enableRecovery": true,
    "createDate": "Jul 6, 2018 1:51:02 PM",
    "lastOpDate": "Jul 6, 2018 1:51:02 PM",
    "labels": [
      {
        "uuid": "cccd980c3bb84f4486d96a960eb08edb",
        "key": "VMUuid",
        "operator": "\\u003d",
        "value": "f486fd81583747459d8a6cd47f9228e5"
      }
    ],
    "actions": [
      {
```

```

    "alarmUuid": "8a6a98e3cc484388a746d725265886b3",
    "actionType": "sns",
    "actionUuid": "86a2b51fbc7f406c906711081852fa49"
  }
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AlarmInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	Th resource name.	2.3
description	String	The detailed description of the resource.	2.3
period	Integer	The threshold duration.	2.3
namespace	String	The namespace.	2.3
metricName	String	The metric name.	2.3
threshold	Double	The threshold.	2.3
repeatInterval	Integer	The alarm repeat interval.	2.3
enableRecovery	Boolean	Whether to enable the recovery notification.	3.4.0
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
comparisonOperator	ComparisonOperator	See comparisonOperator .	2.3
status	AlarmStatus	See status .	2.3
labels	List	See labels .	2.3
actions	List	See actions .	2.3

#comparisonOperator

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

#status

Name	Type	Description	Starting Version
OK	AlarmStatus	The alarm is in normal status.	2.3
Alarm	AlarmStatus	The alarm is triggered.	2.3

Name	Type	Description	Starting Version
InsufficientData	AlarmStatus	The data is insufficient.	2.3

#labels

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
key	String	The label key.	2.3
operator	String	The comparison operator.	2.3
value	String	The label value.	2.3

#actions

Name	Type	Description	Starting Version
alarmUuid	String	The alarm UUID.	2.3
actionType	String	The action type.	2.3
actionUuid	String	The action UUID.	2.3

SDK Sample

Java SDK

```

CreateAlarmAction action = new CreateAlarmAction();
action.name = "VM CPU Alarm";
action.comparisonOperator = "LessThanOrEqualTo";
action.period = 60.0;
action.namespace = "ZStack/VM";
action.metricName = "org.zstack.zwatch.datatype.Metric@c2e79f0";
action.threshold = 60.0;
action.repeatInterval = 1800.0;
action.labels = asList([key:VMUuid, value:45821a26f579447fa77b
fb82b1b0268e, op:Equal]);
action.actions = asList([actionUuid:8e06ec09862c46c3aaf9fc6337815ffb,
actionType:sns]);
action.repeatCount = -1.0;
action.type = "Any";
action.enableRecovery = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAlarmAction.Result res = action.call();

```

Python SDK

```

CreateAlarmAction action = CreateAlarmAction()
action.name = "VM CPU Alarm"

```

```

action.comparisonOperator = "LessThanOrEqualTo"
action.period = 60.0
action.namespace = "ZStack/VM"
action.metricName = "org.zstack.zwatch.datatype.Metric@c2e79f0"
action.threshold = 60.0
action.repeatInterval = 1800.0
action.labels = [[key:VMUuid, value:7dd44bfe750f42859528b27ef90f1412,
op:Equal]]
action.actions = [[actionUuid:b1acb139666140d09f4f93b8dd96f49f,
actionType:sns]]
action.repeatCount = -1.0
action.type = "Any"
action.enableRecovery = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateAlarmAction.Result res = action.call()

```

6.1.1.1.3.2 DeleteAlarm

API Request

URLs

```
DELETE zstack/v1/zwatch/alarms/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/zwatch/
alarms/2aae360b1240374696d79a0cca10bf24

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
deleteMode	String	body	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteAlarmAction action = new DeleteAlarmAction();
action.uuid = "2aae360b1240374696d79a0cca10bf24";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAlarmAction.Result res = action.call();
```

Python SDK

```
DeleteAlarmAction action = DeleteAlarmAction()
action.uuid = "2aae360b1240374696d79a0cca10bf24"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteAlarmAction.Result res = action.call()
```

6.1.1.1.3.3 UpdateAlarm

API Request

URLs

```
PUT zstack/v1/zwatch/alarms/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAlarm": {
    "name": "VM CPU Alarm",
    "comparisonOperator": "LessThanOrEqualTo",
    "period": 60.0,
    "enableRecovery": true
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAlarm":{"name":"VM CPU
Alarm","comparisonOperator":"LessThanOrEqualTo","period":60.0,"enableRecovery":t
http://localhost:8080/zstack/v1/zwatch/
alarms/28397feb3d083fdc9346edb066fbf589/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
name	String	body (contained in the updateAlarm structure)	Optional. The resource name.		2.3
description	String	body (contained in the updateAlarm structure)	Optional. The detailed description of the resource.		2.3
comparison Operator	String	body (contained in the updateAlarm structure)	Optional. The threshold comparison operator.	• GreaterThanOrEqualTo • GreaterThan • LessThan • LessThanOrEqualTo	2.3
period	Integer	body (contained in the	Optional. The threshold duration.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
		updateAlarm structure)			
threshold	Double	body (contained in the updateAlarm structure)	Optional. The threshold.		2.3
repeatInterval	Integer	body (contained in the updateAlarm structure)	Optional. The alarm repeat interval.		2.3
repeatCount	Integer	body (contained in the updateAlarm structure)	Optional. The alarm repeat count.		3.3.0
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
repeatCount	Integer	body (contained in the updateAlarm structure)	Optional. The alarm repeat count.		3.2
enableRecovery	Boolean	body (contained in the updateAlarm structure)	Optional. Whether to enable the recovery notification.		3.4.0
emergencyLevel	String	body (contained in the updateAlarm structure)	The alarm emergency level.	• Emergent • Important • Normal	3.8.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "33e642a1eb3c4f27a7da7acc5891de0a",
    "name": "VM CPU Alarm",
    "comparisonOperator": "LessThanOrEqualTo",
    "period": 60.0,
    "namespace": "ZStack/VM",
    "metricName": "org.zstack.zwatch.datatype.Metric@22c0dd63",
    "threshold": 30.0,
    "repeatInterval": 1800.0,
    "repeatCount": -1.0,
    "status": "Alarm",
    "state": "Enabled",
    "createDate": "Jan 8, 2019 4:11:27 PM",
    "lastOpDate": "Jan 8, 2019 4:11:27 PM",
    "labels": [
      {
        "uuid": "c4da2db2fa454368a3a05016ae8c8070",
        "key": "VMUuid",
        "operator": "\u003d",
        "value": "396d863211e446938ea01eb10bc9fd18"
      }
    ],
    "actions": [
      {
        "alarmUuid": "0d18a844bbf544bb914ab9287651f59f",
        "actionType": "sns",
        "actionUuid": "17b884822b284e6e9a0b67307a28955c"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AlarmInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	2.3

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
period	Integer	The threshold duration.	2.3
namespace	String	The namespace.	2.3
metricName	String	The metric name.	2.3
threshold	Double	The threshold.	2.3
repeatInterval	Integer	The alarm repeat interval.	2.3
enableRecovery	Boolean	Whether to enable the recovery notification.	3.4.0
createDate	Timestamp	The creation date.	2.3

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	2.3
comparisonOperator	ComparisonOperator	See comparisonOperator .	2.3
status	AlarmStatus	See status .	2.3
labels	List	See labels .	2.3
actions	List	See actions .	2.3

#comparisonOperator

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

#status

Name	Type	Description	Starting Version
OK	AlarmStatus	The alarm is in normal status.	2.3
Alarm	AlarmStatus	The alarm is triggered.	2.3
InsufficientData	AlarmStatus	The data is insufficient.	2.3

#labels

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
key	String	The label key.	2.3
operator	String	The comparison operator.	2.3
value	String	The label value.	2.3

#actions

Name	Type	Description	Starting Version
alarmUuid	String	The alarm UUID.	2.3

Name	Type	Description	Starting Version
actionType	String	The action type.	2.3
actionUuid	String	The action UUID.	2.3

SDK Sample

Java SDK

```
UpdateAlarmAction action = new UpdateAlarmAction();
action.uuid = "28397feb3d083fdc9346edb066fbf589";
action.name = "VM CPU Alarm";
action.comparisonOperator = "LessThanOrEqualTo";
action.period = 60.0;
action.enableRecovery = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAlarmAction.Result res = action.call();
```

Python SDK

```
UpdateAlarmAction action = UpdateAlarmAction()
action.uuid = "28397feb3d083fdc9346edb066fbf589"
action.name = "VM CPU Alarm"
action.comparisonOperator = "LessThanOrEqualTo"
action.period = 60.0
action.enableRecovery = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAlarmAction.Result res = action.call()
```

6.1.1.1.3.4 UpdateSubscribeEvent

API Request

URLs

```
PUT zstack/v1/zwatch/events/subscriptions/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSubscribeEvent": {
    "emergencyLevel": "Emergent"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSubscribeEvent":{"emergencyLevel":"Emergent"}}'
http://localhost:8080/zstack/v1/zwatch/events/
subscriptions/37fc1fcc0fa93fb493702469039edbf/b/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	Optional. The event alarm UUID.		3.8.0
emergencyLevel	String	body (contained in the updateSubscribeEvent structure)	Optional. The alarm emergency level.	- Emergent - Important - Normal	3.8.0
systemTags	List	body	Optional.		3.8.0
userTags	List	body	Optional.		3.8.0

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "d1b38b37691948218df07900a2c1c065",
    "name": "vm_state_change_event",
    "namespace": "ZStack/VM",
    "eventName": "org.zstack.zwatch.datatype.EventFamily@35324244",
    "state": "Enabled",
    "actions": [
      {
        "subscriptionUuid": "30d1075270c94f6e9312c1a4404cc67a",
        "actionType": "sns",
        "actionUuid": "33308113390a472286df32a99cd477ef"
      }
    ]
  }
}
```

```

    "labels": [
      {
        "uuid": "26246baade39495c99d018d826ae576e",
        "key": "DestinationHostUuid",
        "operator": "Equal",
        "value": "79e249b6995a4c819d8e6cd33798135a"
      }
    ],
    "lastOpDate": "Jan 11, 2020 11:48:35 PM",
    "createDate": "Jan 11, 2020 11:48:35 PM",
    "emergencyLevel": "Emergent"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.8.0
inventory	EventSubscriptionInventory	See inventory .	3.8.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.8.0
description	String	The brief description of the error.	3.8.0
details	String	The details about the error.	3.8.0
elaboration	String	The reserved field. Default value: null.	3.8.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.8.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.8.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.8.0
name	String	The resource name.	3.8.0
namespace	String	The namespace.	3.8.0
eventName	String	The event name.	3.8.0
lastOpDate	Timestamp	The last operation date.	3.8.0
createDate	Timestamp	The creation date.	3.8.0
emergencyLevel	String	The arm emergency level.	3.8.0
state	EventSubscriptionState	See state .	3.8.0
actions	List	See actions .	3.8.0
labels	List	See labels .	3.8.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	3.8.0
ordinal	int		3.8.0

#actions

Name	Type	Description	Starting Version
subscriptionUuid	String	The event subscription UUID.	3.8.0
actionType	String	The action type.	3.8.0
actionUuid	String	The action UUID.	3.8.0

#labels

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.8.0
key	String	The label key.	3.8.0
value	String	The label value.	3.8.0
operator	Operator	See operator .	3.8.0

#operator

Name	Type	Description	Starting Version
op	String		3.8.0
name	String	The resource name.	3.8.0
ordinal	int		3.8.0

SDK Sample

Java SDK

```
UpdateSubscribeEventAction action = new UpdateSubscribeEventAction();
action.uuid = "37fc1fcc0fa93fb493702469039edbf";
action.emergencyLevel = "Emergent";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSubscribeEventAction.Result res = action.call();
```

Python SDK

```
UpdateSubscribeEventAction action = UpdateSubscribeEventAction()
action.uuid = "37fc1fcc0fa93fb493702469039edbf"
action.emergencyLevel = "Emergent"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSubscribeEventAction.Result res = action.call()
```

6.1.1.1.3.5 AddActionToAlarm

API Request

URLs

```
POST zstack/v1/zwatch/alarms/{alarmUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
```

```

"params": {
  "actionUuid": "a48c9fa0454238a4b731279b92d8bad1",
  "actionType": "sns"
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"actionUuid":"a48c9fa0454238a4b731279b92d8bad1","actionType":"sns"}}'
http://localhost:8080/zstack/v1/zwatch/
alarms/3edde2bd29493568a2640f75d218ed05/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
alarmUuid	String	url	The alarm UUID.		2.3
actionUuid	String	body (contained in the params structure)	The action UUID.		2.3
actionType	String	body (contained in the params structure)	The action type.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response**Sample Response**

```

{
  "inventory": {

```

```

"uuid": "6b9ce7e8a6c04476aa22ce6c851a7f80",
"name": "VM CPU Alarm",
"comparisonOperator": "LessThanOrEqualTo",
"period": 60.0,
"namespace": "ZStack/VM",
"metricName": "org.zstack.zwatch.datatype.Metric@565e1ebe",
"threshold": 30.0,
"repeatInterval": 1800.0,
"status": "Alarm",
"state": "Enabled",
"createDate": "Jul 6, 2018 1:50:39 PM",
"lastOpDate": "Jul 6, 2018 1:50:39 PM",
"labels": [
  {
    "uuid": "f183fec66c3d40938621568943f4c0bf",
    "key": "VMUuid",
    "operator": "\u003d",
    "value": "7d46ab7f0f104ad0908f23d648bcaa9e"
  }
],
"actions": [
  {
    "alarmUuid": "7379b3951c9f4c82a0571cc55ebc98b3",
    "actionType": "sns",
    "actionUuid": "27e18067eb614fd4bcb047c008e3a4c0"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AlarmInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3

Name	Type	Description	Starting Version
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
period	Integer	The threshold duration.	2.3
namespace	String	The namespace.	2.3
metricName	String	The metric name.	2.3
threshold	Double	The threshold.	2.3
repeatInterval	Integer	The alarm repeat interval.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
comparisonOperator	ComparisonOperator	See comparisonOperator .	2.3
status	AlarmStatus	See status .	2.3
labels	List	See labels .	2.3

Name	Type	Description	Starting Version
actions	List	See actions .	2.3

#comparisonOperator

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

#status

Name	Type	Description	Starting Version
OK	AlarmStatus	The alarm is in normal status.	2.3
Alarm	AlarmStatus	The alarm is triggered.	2.3
InsufficientData	AlarmStatus	The data is insufficient.	2.3

#labels

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
key	String	The label key.	2.3
operator	String	The comparison operator.	2.3
value	String	The label value.	2.3

#actions

Name	Type	Description	Starting Version
alarmUuid	String	The alarm UUID.	2.3
actionType	String	The action type.	2.3
actionUuid	String	The action UUID.	2.3

SDK Sample

Java SDK

```
AddActionToAlarmAction action = new AddActionToAlarmAction();
```

```

action.alarmUuid = "3edde2bd29493568a2640f75d218ed05";
action.actionUuid = "a48c9fa0454238a4b731279b92d8bad1";
action.actionType = "sns";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddActionToAlarmAction.Result res = action.call();

```

Python SDK

```

AddActionToAlarmAction action = AddActionToAlarmAction()
action.alarmUuid = "3edde2bd29493568a2640f75d218ed05"
action.actionUuid = "a48c9fa0454238a4b731279b92d8bad1"
action.actionType = "sns"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddActionToAlarmAction.Result res = action.call()

```

6.1.1.1.3.6 RemoveActionFromAlarm

API Request

URLs

```
DELETE zstack/v1/zwatch/alarms/{alarmUuid}/actions/{actionUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
zwatch/alarms/2c95bdf5490131bbb421622579b59eb8/
actions/41c582ab1cea31d5addd02bb00bb173d

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
alarmUuid	String	url	The alarm UUID.		2.3
actionUuid	String	url	The action UUID.		2.3
deleteMode	String	body	Optional. The delete mode.		2.3
systemTags	List	body	Optional. The system tags.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3f753a2f9dd44becb0435b2a517fd5d4",
    "name": "VM CPU Alarm",
    "comparisonOperator": "LessThanOrEqualTo",
    "period": 60.0,
    "namespace": "ZStack/VM",
    "metricName": "org.zstack.zwatch.datatype.Metric@565e1ebe",
    "threshold": 30.0,
    "repeatInterval": 1800.0,
    "status": "Alarm",
    "state": "Enabled",
    "createDate": "Jul 6, 2018 1:50:59 PM",
    "lastOpDate": "Jul 6, 2018 1:50:59 PM",
    "labels": [
      {
        "uuid": "cf7ff04d570f4f509e6b22851ceb231d",
        "key": "VMUuid",
        "operator": "\u003d",
        "value": "cda155f903f1417f951578ea74623f5e"
      }
    ],
    "actions": [
      {
        "alarmUuid": "5d2a502edc8d4c34b90ae499c7fdb437",
        "actionType": "sns",
        "actionUuid": "4b7903efe370462aab75bb5890971e6d"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AlarmInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
period	Integer	The threshold duration.	2.3
namespace	String	The namespace.	2.3
metricName	String	The metric name.	2.3
threshold	Double	The threshold.	2.3
repeatInterval	Integer	The alarm repeat interval.	2.3
createDate	Timestamp	The creation date.	2.3

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	2.3
comparisonOperator	ComparisonOperator	See comparisonOperator .	2.3
status	AlarmStatus	See status .	2.3
labels	List	See labels .	2.3
actions	List	See actions .	2.3

#comparisonOperator

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

#status

Name	Type	Description	Starting Version
OK	AlarmStatus	The alarm is in normal status.	2.3
Alarm	AlarmStatus	The alarm is triggered.	2.3
InsufficientData	AlarmStatus	The data is insufficient.	2.3

#labels

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
key	String	The label key.	2.3
operator	String	The comparison operator.	2.3
value	String	The label value.	2.3

#actions

Name	Type	Description	Starting Version
alarmUuid	String	The alarm UUID.	2.3

Name	Type	Description	Starting Version
actionType	String	The action type.	2.3
actionUuid	String	The action UUID.	2.3

SDK Sample

Java SDK

```
RemoveActionFromAlarmAction action = new RemoveActionFromAlarmAction  
(  
    );  
action.alarmUuid = "2c95bdf5490131bbb421622579b59eb8";  
action.actionUuid = "41c582ab1cea31d5add02bb00bb173d";  
action.deleteMode = "Permissive";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
RemoveActionFromAlarmAction.Result res = action.call();
```

Python SDK

```
RemoveActionFromAlarmAction action = RemoveActionFromAlarmAction()  
action.alarmUuid = "2c95bdf5490131bbb421622579b59eb8"  
action.actionUuid = "41c582ab1cea31d5add02bb00bb173d"  
action.deleteMode = "Permissive"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
RemoveActionFromAlarmAction.Result res = action.call()
```

6.1.1.1.3.7 AddLabelToAlarm

API Request

URLs

```
POST zstack/v1/zwatch/alarms/{alarmUuid}/labels
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "params": {  
    "key": "VMUuid",  
    "value": "2840f151485641cca48b190ebb989cbf",  
    "operator": "Equal"  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"key":"VMUuid", "value":"165af818089b4e9f8c07691de549f8d4", "operator":"Equal"}}'
http://localhost:8080/zstack/v1/zwatch/
alarms/00b90ca9d59d3f539530fbcc8572c403/labels
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
alarmUuid	String	url	The alarm UUID.		2.3
key	String	body (contained in the params structure)	The label key.		2.3
value	String	body (contained in the params structure)	The label value.		2.3
operator	String	body (contained in the params structure)	The operator.	• Regex • Equal	2.3
resourceUuid	String	body (contained in the params structure)	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3f54b760c8d64e17bc282258335b718a",
    "key": "VMUuid",
    "operator": "\u003d",
    "value": "dd5b28c103594573b7bb21a02cb000c4"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AlarmInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.3

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource The UUID..	2.3
name	String	Th resource name.	2.3
description	String	The detailed description of the resource.	2.3
period	Integer	The threshold duration.	2.3
namespace	String	The namespace.	2.3
metricName	String	The metric name.	2.3
threshold	Double	The threshold.	2.3
repeatInterval	Integer	The alarm repeat interval.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
comparisonOperator	ComparisonOperator	See comparisonOperator .	2.3
status	AlarmStatus	See status .	2.3
labels	List	See labels .	2.3
actions	List	See actions .	2.3

#comparisonOperator

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

#status

Name	Type	Description	Starting Version
OK	AlarmStatus	The alarm is in normal status.	2.3
Alarm	AlarmStatus	The alarm is triggered.	2.3
InsufficientData	AlarmStatus	The data is insufficient.	2.3

#labels

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
key	String	The label key.	2.3
operator	String	The comparison operator.	2.3
value	String	The label value.	2.3

#actions

Name	Type	Description	Starting Version
alarmUuid	String	The alarm UUID.	2.3
actionType	String	The action type.	2.3
actionUuid	String	The action UUID.	2.3

SDK Sample

Java SDK

```
AddLabelToAlarmAction action = new AddLabelToAlarmAction();
action.alarmUuid = "00b90ca9d59d3f539530fbcc8572c403";
action.key = "VMUuid";
action.value = "bfaa02ec5c37490d829ae95bebf15b78";
action.operator = "Equal";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddLabelToAlarmAction.Result res = action.call();
```

Python SDK

```
AddLabelToAlarmAction action = AddLabelToAlarmAction()
action.alarmUuid = "00b90ca9d59d3f539530fbcc8572c403"
action.key = "VMUuid"
action.value = "b4eb5d369bfb45719fbe862484011563"
action.operator = "Equal"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddLabelToAlarmAction.Result res = action.call()
```

6.1.1.1.3.8 UpdateAlarmLabel

API Request

URLs

```
PUT zstack/v1/zwatch/alarms/labels/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAlarmLabel": {
    "key": "VMUuid",
    "value": "e9859e9eb51e4ea583a7c529407208a2",
    "operator": "Equal"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAlarmLabel":
{"key":"VMUuid","value":"59ab62f070784eb2b0d98f0d12386f0d","operator":"Equal"}}'
http://localhost:8080/zstack/v1/zwatch/alarms/
labels/3c228226ca213c18b54627668dd37d80/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.3
key	String	body (contained in the	The label key.		3.3

Name	Type	Location	Description	Optional Value	Starting Version
		updateAlarmLabel structure)			
value	String	body (contained in the updateAlarmLabel structure)	The label value.		3.3
operator	String	body (contained in the updateAlarmLabel structure)	The label operator.	• Regex • Equal	3.3
systemTags	List	body	Optional. The system tags.		3.3
userTags	List	body	Optional. The user tags.		3.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5ea6d350f0e64d0b9467d033e9c6d052",
    "key": "VMUuuid",
    "operator": "\u003d",
    "value": "35956236f261467cb2cef1db8626024e"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.3.0
inventory	AlarmLabelInventory	See inventory .	3.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.3.0
description	String	The brief description of the error.	3.3.0
details	String	The details about the error.	3.3.0
elaboration	String	The reserved field. Default value: null.	3.3.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.3.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.3.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.3.0
key	String		3.3.0
operator	String		3.3.0
value	String		3.3.0

SDK Sample

Java SDK

```
UpdateAlarmLabelAction action = new UpdateAlarmLabelAction();
action.uuid = "3c228226ca213c18b54627668dd37d80";
action.key = "VMUuid";
action.value = "1a33d5ce225241e0b2cbc80123e36351";
action.operator = "Equal";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
UpdateAlarmLabelAction.Result res = action.call();
```

Python SDK

```
UpdateAlarmLabelAction action = UpdateAlarmLabelAction()
action.uuid = "3c228226ca213c18b54627668dd37d80"
action.key = "VMUuid"
action.value = "20034c6b21a24918912857c8ed923c6b"
action.operator = "Equal"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAlarmLabelAction.Result res = action.call()
```

6.1.1.1.3.9 RemoveLabelFromAlarm

API Request

URLs

```
DELETE zstack/v1/zwatch/alarms/labels/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/zwatch/alarms/
labels/160037fc792d3815ba25fe8a48d1b237
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
deleteMode	String	body	Optional. The delete mode.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveLabelFromAlarmAction action = new RemoveLabelFromAlarmAction();
action.uuid = "160037fc792d3815ba25fe8a48d1b237";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveLabelFromAlarmAction.Result res = action.call();
```

Python SDK

```
RemoveLabelFromAlarmAction action = RemoveLabelFromAlarmAction()
action.uuid = "160037fc792d3815ba25fe8a48d1b237"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveLabelFromAlarmAction.Result res = action.call()
```

6.1.1.1.3.10 ChangeAlarmState

API Request

URLs

```
PUT zstack/v1/zwatch/alarms/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeAlarmState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeAlarmState":{"stateEvent":"disable"}}'
http://localhost:8080/zstack/v1/zwatch/
alarms/226149ca389f387e95d0f671bd6b551f/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
stateEvent	String	body (contained in the changeAlarmState structure)	The state event.	- enabled - disabled	2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "3b57de3128b545a18bb7da2f086f6362",
    "name": "VM CPU Alarm",
    "comparisonOperator": "LessThanOrEqualTo",
    "period": 60.0,
    "namespace": "ZStack/VM",
    "metricName": "org.zstack.zwatch.datatype.Metric@565e1ebe",
    "threshold": 30.0,
    "repeatInterval": 1800.0,
    "status": "Alarm",
    "state": "Enabled",
```



```

"createDate": "Jul 6, 2018 1:50:57 PM",
"lastOpDate": "Jul 6, 2018 1:50:57 PM",
"labels": [
  {
    "uuid": "61f43f3a05f74ef39b5b2c30354a5246",
    "key": "VMUuid",
    "operator": "\u003d",
    "value": "23958e475ae34735a4ca0b808df0cf50"
  }
],
"actions": [
  {
    "alarmUuid": "f01eb4d0ec1d4cdc81dc478c87f9fceb",
    "actionType": "sns",
    "actionUuid": "c9d79c14e37a4ebb83cf0d76fb7b8dbc"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	AlarmInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
period	Integer	The threshold duration.	2.3
namespace	String	The namespace.	2.3
metricName	String	The metric name.	2.3
threshold	Double	The threshold.	2.3
repeatInterval	Integer	The alarm repeat interval.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
comparisonOperator	ComparisonOperator	See comparisonOperator .	2.3
status	AlarmStatus	See status .	2.3
labels	List	See labels .	2.3
actions	List	See actions .	2.3

#comparisonOperator

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

#status

Name	Type	Description	Starting Version
OK	AlarmStatus	The alarm is in normal status.	2.3
Alarm	AlarmStatus	The alarm is triggered.	2.3
InsufficientData	AlarmStatus	The data is insufficient.	2.3

#labels

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
key	String	The label key.	2.3
operator	String	The comparison operator.	2.3
value	String	The label value.	2.3

#actions

Name	Type	Description	Starting Version
alarmUuid	String	The alarm UUID.	2.3
actionType	String	The action type.	2.3
actionUuid	String	The action UUID.	2.3

SDK Sample

Java SDK

```
ChangeAlarmStateAction action = new ChangeAlarmStateAction();
action.uuid = "226149ca389f387e95d0f671bd6b551f";
action.stateEvent = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeAlarmStateAction.Result res = action.call();
```

Python SDK

```
ChangeAlarmStateAction action = ChangeAlarmStateAction()
action.uuid = "226149ca389f387e95d0f671bd6b551f"
action.stateEvent = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeAlarmStateAction.Result res = action.call()
```

6.1.1.1.3.11 QueryAlarm

API Request

URLs

```
GET zstack/v1/zwatch/alarms
GET zstack/v1/zwatch/alarms/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/alarms?q=name=VM
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/alarms/572c61c4a1393b6ebce520a0102dc46c
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAlarm**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "5c9ef4b25c2a485da77eab50745d53cf",
      "name": "VM CPU Alarm",
      "comparisonOperator": "LessThanOrEqualTo",
      "period": 60.0,
      "namespace": "ZStack/VM",
      "metricName": "org.zstack.zwatch.datatype.Metric@565e1ebe",
      "threshold": 30.0,
      "repeatInterval": 1800.0,
      "status": "Alarm",
      "state": "Enabled",
      "createDate": "Jul 6, 2018 1:50:51 PM",
      "lastOpDate": "Jul 6, 2018 1:50:51 PM",
      "labels": [
        {
          "uuid": "5ab29656f8df43a3a78d672af8940896",
          "key": "VMUuid",
          "operator": "\u003d",

```

```

    "value": "b128326b8b944c0499992c00cabd4711"
  },
  "actions": [
    {
      "alarmUuid": "2028f51e88b6449fb33442215810845f",
      "actionType": "sns",
      "actionUuid": "9486671b2f4c4413976f1d6938ac1d01"
    }
  ]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventories	List	See inventories .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.3

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	Th resource name.	2.3
description	String	The detailed description of the resource.	2.3
period	Integer	The threshold duration.	2.3
namespace	String	The namespace.	2.3
metricName	String	The metric name.	2.3
threshold	Double	The threshold.	2.3
repeatInterval	Integer	The alarm repeat interval.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
comparisonOperator	ComparisonOperator	See comparisonOperator .	2.3
status	AlarmStatus	See status .	2.3
labels	List	See labels .	2.3
actions	List	See actions .	2.3

#comparisonOperator

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

#status

Name	Type	Description	Starting Version
OK	AlarmStatus	The alarm is in normal status.	2.3
Alarm	AlarmStatus	The alarm is triggered.	2.3
InsufficientData	AlarmStatus	The data is insufficient.	2.3

#labels

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
key	String	The label key.	2.3
operator	String	The comparison operator.	2.3
value	String	The label value.	2.3

#actions

Name	Type	Description	Starting Version
alarmUuid	String	The alarm UUID.	2.3
actionType	String	The action type.	2.3
actionUuid	String	The action UUID.	2.3

SDK Sample

Java SDK

```
QueryAlarmAction action = new QueryAlarmAction();
action.conditions = asList("name=VM");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAlarmAction.Result res = action.call();
```

Python SDK

```
QueryAlarmAction action = QueryAlarmAction()
action.conditions = ["name=VM"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryAlarmAction.Result res = action.call()
```

6.1.1.1.3.12 GetAlarmData

API Request

URLs

```
GET zstack/v1/zwatch/alarm-histories
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/zwatch/alarm-histories? \  
startTime=1.596444525E9&endTime=1.596530925E9&limit=200.0&count=false&excludeOther
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
startTime	Long	query	Optional. The start time.		2.3
endTime	Long	query	Optional. The end time.		2.3
limit	Integer	query	Optional. The maximum number of returned records.		2.3
conditions	List	query	Optional. The conditions to filter the results.		2.3
count	boolean	query	Optional. Whether to query the message count.		3.3.0

Name	Type	Location	Description	Optional Value	Starting Version
excludeOtherAccount	boolean	query	Optional. Whether to exclude messages other than the current account (only effective for SystemAdmin).		3.3.0
endpointUuid	String	query	Optional. The endpoint UUID.		3.10.0
systemTags	List	query	Optional. The system tags.		2.3
userTags	List	query	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "histories": [
    {
      "alarmUuid": "143b24a12d193c1992c4774dc3b34fda",
      "namespace": "ZStack/VM",
      "metricName": "CPUUsedUtilization",
      "accountUuid": "90aea7a1dfe93cf7bd3379254dddbdf9",
      "resourceUuid": "4e6bb5390d3938cb9ce830a4766ee4d8",
      "resourceType": "VmInstanceV0",
      "alarmStatus": "Alarm",
      "alarmName": "test-alarm",
      "threshold": 90.0,
      "labels": "VMUuid Equal 4e6bb5390d3938cb9ce830a4766ee4d8, CPUNum Equal 2",
      "metricValue": 10.0,
      "comparisonOperator": "LessThan",
      "time": 1.510669257141E12
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
histories	List	See histories .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#histories

Name	Type	Description	Starting Version
alarmUuid	String	The alarm UUID.	2.3
namespace	String	The namespace.	2.3

Name	Type	Description	Starting Version
metricName	String	The metric name.	2.3
accountUuid	String	The account UUID.	2.3
resourceUuid	String	The resource UUID.	2.3
resourceType	String	The resource type.	2.3
alarmStatus	String	The alarm status.	2.3
alarmName	String	The alarm name.	2.3
threshold	Double	The alarm threshold.	2.3
period	Integer	The threshold duration.	2.3
labels	String	The label list.	2.3
metricValue	Double	The metric value.	2.3
time	long	The time that the alarm record was generated.	2.3

SDK Sample

Java SDK

```
GetAlarmDataAction action = new GetAlarmDataAction();
action.startTime = 1.530856218E9;
action.endTime = 1.530942618E9;
action.limit = 200.0;
action.count = false;
action.excludeOtherAccount = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetAlarmDataAction.Result res = action.call();
```

Python SDK

```
GetAlarmDataAction action = GetAlarmDataAction()
action.startTime = 1.530856218E9
action.endTime = 1.530942618E9
action.limit = 200.0
action.count = false;
action.excludeOtherAccount = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetAlarmDataAction.Result res = action.call()
```

6.1.1.1.3.13 UpdateAlarmData

API Request

URLs

```
PUT zstack/v1/zwatch/alarm-histories/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAlarmData": {
    "dataUuid": "514d4a1ed3573bf8a14ac350de0a2513",
    "updateMode": "OnlyOne",
    "readStatus": "Read"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAlarmData":
{"dataUuid":"514d4a1ed3573bf8a14ac350de0a2513","updateMode":"OnlyOne","readStatus":
"http://localhost:8080/zstack/v1/zwatch/alarm-histories/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
dataUuid	String	body (contained in the updateAlarmData structure)	Optional. The resource UUID.		3.3.0

Name	Type	Location	Description	Optional Value	Starting Version
dataStartTime	Long	body (contained in the updateAlarmData structure)	Optional. The start time of the target messages. Make sure that InRange is transferred to updateMode .		3.3.0
dataEndTime	Long	body (contained in the updateAlarmData structure)	Optional. The end time of the target messages. Make sure that InRange is transferred to updateMode .		3.3.0
updateMode	String	body (contained in the updateAlarmData structure)	The range of the target messages to be updated. Options: • onlyOne : updates only the specified messages. • InRange: updates the messages generated in a specified time range. • All: updates all messages.	• OnlyOne • InRange • All	3.3.0

Name	Type	Location	Description	Optional Value	Starting Version
readStatus	String	body (contained in the updateAlarmData structure)	Optional. The read status of the updated messages.	• Read • Unread	3.3.0
systemTags	List	body	Optional. The system tags.		3.3.0
userTags	List	body	Optional. The user tags.		3.3.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UpdateAlarmDataAction action = new UpdateAlarmDataAction();
action.dataUuid = "514d4a1ed3573bf8a14ac350de0a2513";
action.updateMode = "OnlyOne";
action.readStatus = "Read";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAlarmDataAction.Result res = action.call();
```

Python SDK

```
UpdateAlarmDataAction action = UpdateAlarmDataAction()
action.dataUuid = "514d4a1ed3573bf8a14ac350de0a2513"
action.updateMode = "OnlyOne"
action.readStatus = "Read"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateAlarmDataAction.Result res = action.call()
```

6.1.1.1.3.14 UpdateActiveAlarmTemplate

API Request

URLs

```
PUT zstack/v1/zwatch/activealarms/templates/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateActiveAlarmTemplate": {
    "alarmName": "VM-CPUAverageUsedUtilization",
    "comparisonOperator": "LessThanOrEqualTo",
    "period": 60,
    "threshold": 80.0,
    "repeatInterval": 1800,
    "repeatCount": -1,
    "emergencyLevel": "Emergent"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateActiveAlarmTemplate":{"alarmName":"VM-CPUAverageUsedUtilization","comparisonOperator":"LessThanOrEqualTo","period":60,'
http://localhost:8080/zstack/v1/zwatch/activealarms/templates/
c3e82dade74732009d5f4fd0b462f65d/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The template UUID.		4.7.0

Name	Type	Location	Description	Optional Value	Starting Version
alarmName	String	body (contained in the updateActiveAlarmTemplate structure)	Optional. The template name.		4.7.0
comparisonOperator	String	body (contained in the updateActiveAlarmTemplate structure)	Optional. The threshold comparison operator.	• GreaterThanOrEqualTo • GreaterThan • LessThan • LessThanOrEqualTo	4.7.0
period	Integer	body (contained in the updateActiveAlarmTemplate structure)	Optional. The threshold comparison operator.		4.7.0
threshold	Double	body (contained in the updateActiveAlarmTemplate structure)	Optional. The threshold.		4.7.0
repeatInterval	Integer	body (contained in the updateActiveAlarmTemplate structure)	Optional. The alarm repeat interval.		4.7.0
repeatCount	Integer	body (contained in the	Optional. The alarm repeat count.		4.7.0

Name	Type	Location	Description	Optional Value	Starting Version
		updateActiveAlarmTemplate (structure)			
emergencyLevel	String	body (contained in the updateActiveAlarmTemplate structure)	Optional. The alarm emergency level.	- Emergent - Important - Normal	4.7.0
labels	String	body (contained in the updateActiveAlarmTemplate structure)	Optional.		4.7.0
systemTags	List	query	Optional. The system tags.		4.7.0
userTags	List	query	Optional. The user tags.		4.7.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ea8aa7b6b2e43d4a9f3a19ba121ab72a",
    "alarmName": "VM CPU Alarm",
    "comparisonOperator": "LessThanOrEqualTo",
    "period": 60,
    "repeatInterval": 60,
    "repeatCount": -1,
    "namespace": "zstack/VM",
    "metricName": "CPUIdleUtilization",
    "threshold": 30.0,
    "emergencyLevel": "Emergent",
    "labels": "[{\"uuid\":\"48cc4d3273a249009ea2166b71495785\",
    \"key\":\"VMUuid\", \"operator\":\"<u003d\", \"value\":
    \"c69d93586ca349b9a3bc074e2739e20a\"}]",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.7.0
inventory	ActiveAlarmTemplateInventory	See inventory .	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
alarmName	String		4.7.0
period	int		4.7.0
repeatInterval	int		4.7.0
repeatCount	int		4.7.0
namespace	String		4.7.0
metricName	String		4.7.0
threshold	double		4.7.0
labels	String		4.7.0
createDate	Timestamp	The creation date.	4.7.0
lastOpDate	Timestamp	The last operation date.	4.7.0
comparisonOperator	ComparisonOperator	See comparisonOperator .	4.7.0
emergencyLevel	EmergencyLevel	See emergencyLevel .	4.7.0

#comparisonOperator

Name	Type	Description	Starting Version
GreaterThanOrEqualTo	ComparisonOperator		4.7.0

Name	Type	Description	Starting Version
GreaterThan	ComparisonOperator		4.7.0
LessThan	ComparisonOperator		4.7.0
LessThanOrEqualTo	ComparisonOperator		4.7.0

#emergencyLevel

Name	Type	Description	Starting Version
Emergent	EmergencyLevel		4.7.0
Important	EmergencyLevel		4.7.0
Normal	EmergencyLevel		4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
UpdateActiveAlarmTemplateAction action = new UpdateActiveAlarmTemplateAction();
action.uuid = "c3e82dade74732009d5f4fd0b462f65d";
action.alarmName = "VM-CPUAverageUsedUtilization";
action.comparisonOperator = "LessThanOrEqualTo";
action.period = 60;
action.threshold = 80.0;
action.repeatInterval = 1800;
action.repeatCount = -1;
action.emergencyLevel = "Emergent";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateActiveAlarmTemplateAction.Result res = action.call();
```

Python SDK

```
UpdateActiveAlarmTemplateAction action = UpdateActiveAlarmTemplateAction()
action.uuid = "c3e82dade74732009d5f4fd0b462f65d"
action.alarmName = "VM-CPUAverageUsedUtilization"
action.comparisonOperator = "LessThanOrEqualTo"
action.period = 60
action.threshold = 80.0
action.repeatInterval = 1800
action.repeatCount = -1
action.emergencyLevel = "Emergent"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateActiveAlarmTemplateAction.Result res = action.call()
```

6.1.1.1.3.15 ChangeEventSubscriptionState

API Request

URLs

```
PUT zstack/v1/zwatch/change/eventSubscription/{uuid}/state
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeEventSubscriptionState": {
    "state": "Disabled"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" /
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" /
-X PUT -d '{"changeEventSubscriptionState":{"state":"Disabled"}}'
http://localhost:8080/zstack/v1/zwatch/change/
eventSubscription/2140655d1d183a6690c0eecdabc721ec0/state
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0
state	String	body (contained in the changeEventSubscriptionState structure)	The event alarm state.	- Enabled - Disabled	4.7.0
systemTags	List	query	Optional. The system tags.		4.7.0
userTags	List	query	Optional. The user tags.		4.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
ChangeEventSubscriptionStateAction action = new ChangeEventSubscript
ionStateAction();
action.uuid = "2140655d1d183a6690c0eecdbc721ec0";
action.state = "Disabled";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeEventSubscriptionStateAction.Result res = action.call();
```

Python SDK

```
ChangeEventSubscriptionStateAction action = ChangeEventSubscript
ionStateAction()
action.uuid = "2140655d1d183a6690c0eecdbc721ec0"
action.state = "Disabled"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeEventSubscriptionStateAction.Result res = action.call()
```

6.1.1.1.4 Event Subscription Operations

6.1.1.1.4.1 SubscribeEvent

API Request

URLs

```
POST zstack/v1/zwatch/events/subscriptions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "namespace": "ZStack/VM",
    "eventName": "VMUuid",
    "actions": [
      {
        "actionUuid": "2fbeae18082445d09c890fa076ff9fd9",
        "actionType": "sns"
      }
    ],
    "labels": [
      {
        "key": "VMUuid",
        "value": "0c60949d81964f23a0d860b30472c51b",
        "op": "Equal"
      }
    ]
  }
}
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"namespace":"ZStack/
VM","eventName":"VMUuid","actions":
[{"actionUuid":"c7b1b7e054494aeab843a9c7371cdfc4","actionType":"sns"}],"labels":
[{"key":"VMUuid","value":"47056270f2ea45409a419f1165f83945","op":"Equal"}]}' \
http://localhost:8080/zstack/v1/zwatch/events/subscriptions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
namespace	String	body (contained in the params structure)	The namespace.		2.3
eventName	String	body (contained in the params structure)	The event name.		2.3
actions	List	body (contained in the params structure)	Optional. The event actions.		2.3
labels	List	body (contained in the params structure)	Optional. The event labels.		2.3
resourceUuid	String	body (contained in the params structure)	Optional.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
name	String	body (contained in the params structure)	Optional. The resource name.		3.0.0
emergencyLevel	String	body (contained in the params structure)	Optional. The alarm emergency level.	• Emergent • Important • Normal	3.8.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.8.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SubscribeEventAction action = new SubscribeEventAction();
action.namespace = "ZStack/VM";
action.eventName = "VMUuid";
action.actions = asList([actionUuid:08a502ad6e944ceb8c70f523b69385e3,
actionType:sns]);
action.labels = asList([key:VMUuid, value:896391b873dc41288c08
41b5fe8cb71b, op:Equal]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```



```
SubscribeEventAction.Result res = action.call();
```

Python SDK

```
SubscribeEventAction action = SubscribeEventAction()
action.namespace = "ZStack/VM"
action.eventName = "VMUuid"
action.actions = [[actionUuid:393df28f2bab49aba01fc229dae849c8,
actionType:sns]]
action.labels = [[key:VMUuid, value:abd2e73d08d248b6be73e31eb6a97e82,
op:Equal]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SubscribeEventAction.Result res = action.call()
```

6.1.1.1.4.2 UnsubscribeEvent

API Request

URLs

```
DELETE zstack/v1/zwatch/events/subscriptions/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/zwatch/events/
subscriptions/298e2e2506163851a268907ed8ea7995
```

Request Parameters

Name	Type	Location	Description	Optional	Starting Version
uuid	String	url	The resource UUID.		2.3
deleteMode	String	body	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UnsubscribeEventAction action = new UnsubscribeEventAction();
action.uuid = "298e2e2506163851a268907ed8ea7995";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UnsubscribeEventAction.Result res = action.call();
```

Python SDK

```
UnsubscribeEventAction action = UnsubscribeEventAction()
action.uuid = "298e2e2506163851a268907ed8ea7995"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UnsubscribeEventAction.Result res = action.call()
```

6.1.1.1.4.3 QueryEventSubscription

API Request

URLs

```
GET zstack/v1/zwatch/events/subscriptions
GET zstack/v1/zwatch/events/subscriptions/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/events/subscriptions?
q=name=test
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/zwatch/events/
subscriptions/57618e9763ce3b7e990870c3a7ae8c53
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryEventSubscription**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "9404fe697a6b4d7dbac98065af20dc57",
      "namespace": "ZStack/VM",
      "eventName": "org.zstack.zwatch.datatype.EventFamily@80723ca",
      "state": "Enabled",
      "actions": [
        {
          "subscriptionUuid": "650cf6a269284671a42f93631c87dfec",
          "actionType": "sns",
          "actionUuid": "fe296dcbc31c4afa9f76494b1930c8cc"
        }
      ],
      "labels": [
        {
          "uuid": "d29fe54ca47540a9b20b308429f21434",
          "key": "DestinationHostUuid",
          "operator": "Equal",
          "value": "733509c8c5684c678ffe99f59d4aba21"
        }
      ],
      "lastOpDate": "Jul 6, 2018 1:51:00 PM",
      "createDate": "Jul 6, 2018 1:51:00 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3.1
inventories	List	See inventories .	2.3.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3.1
description	String	The brief description of the error.	2.3.1
details	String	The details about the error.	2.3.1
elaboration	String	The reserved field. Default value: null.	2.3.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3.1

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3.1
name	String	The resource name.	3.0.0
namespace	String	The namespace.	2.3.1
eventName	String	The event name.	2.3.1
lastOpDate	Timestamp	The creation date.	2.3.1
createDate	Timestamp	The last operation date.	2.3.1
state	EventSubscriptionState	See state .	2.3.1
actions	List	See actions .	2.3.1
labels	List	See labels .	2.3.1

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.3.1
ordinal	int		2.3.1

#actions

Name	Type	Description	Starting Version
subscriptionUuid	String	The event subscription UUID.	2.3.1
actionType	String	The action type.	2.3.1
actionUuid	String	The action UUID.	2.3.1

#labels

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3.1
key	String	The label key.	2.3.1
value	String	The label value.	2.3.1
operator	Operator	See operator .	2.3.1

#operator

Name	Type	Description	Starting Version
op	String		2.3.1
name	String	The resource name.	2.3.1
ordinal	int		2.3.1

SDK Sample

Java SDK

```
QueryEventSubscriptionAction action = new QueryEventSubscriptionAction
();
action.conditions = asList("name=test");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryEventSubscriptionAction.Result res = action.call();
```

Python SDK

```
QueryEventSubscriptionAction action = QueryEventSubscriptionAction()
action.conditions = ["name=test"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryEventSubscriptionAction.Result res = action.call()
```

6.1.1.1.4.4 UpdateEventSubscriptionLabel

API Request

URLs

```
PUT zstack/v1/zwatch/events/subscriptions/labels/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateEventSubscriptionLabel": {
    "key": "VMUuid",
    "value": "42c233c17c6e4907b7be1f11a41f3a17",
    "operator": "Equal"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateEventSubscriptionLabel":
{"key": "VMUuid", "value": "228fc2c5041248df9b0d317f6f7a8585", "operator": "Equal"}}'
http://localhost:8080/zstack/v1/zwatch/events/subscriptions/labels/
cfb859d412933a1da57ae99e2aa442ce/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the event subscription.		3.9.0
key	String	body (contained in the updateEventSubscriptionLabel structure)	The new name of the label.		3.9.0
value	String	body (contained in the updateEventSubscriptionLabel structure)	The new value of the label.		3.9.0
operator	String	body (contained in the updateEventSubscriptionLabel structure)	The new operator of the label.	• Regex • Equal	3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d937a1c6d9de3f2285b0cb23316624a8",
    "key": "VMUuid",
    "operator": "Equal",
    "value": "19cf33283b484ff6b73a6d98e1d762f5"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventory	EventSubscriptionLabelInventory	See inventory .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0

Name	Type	Description	Starting Version
key	String	The label name.	3.9.0
value	String	The label key.	3.9.0
operator	Operator	See operator .	3.9.0

#operator

Name	Type	Description	Starting Version
op	String		3.9.0
name	String	The resource name.	3.9.0
ordinal	int		3.9.0

SDK Sample

Java SDK

```
UpdateEventSubscriptionLabelAction action = new UpdateEventSubscript
ionLabelAction();
action.uuid = "cfb859d412933a1da57ae99e2aa442ce";
action.key = "VMUUid";
action.value = "9d7099dd361049aaaf801ca6b17b2858";
action.operator = "Equal";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateEventSubscriptionLabelAction.Result res = action.call();
```

Python SDK

```
UpdateEventSubscriptionLabelAction action = UpdateEventSubscript
ionLabelAction()
action.uuid = "cfb859d412933a1da57ae99e2aa442ce"
action.key = "VMUUid"
action.value = "27e59f9fe7ed46118a2f6b8a383ce494"
action.operator = "Equal"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateEventSubscriptionLabelAction.Result res = action.call()
```

6.1.1.1.5 Text Template Operations

6.1.1.1.5.1 CreateSNSTextTemplate

API Request

URLs

```
POST zstack/v1/zwatch/alarms/sns/text-templates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "email template",
    "applicationPlatformType": "Email",
    "subject": "Alarm ${ALARM_NAME} [${ALARM_METRIC} ${ALARM_COMPARISON_OPERATOR} threshold ${ALARM_THRESHOLD}] changes status to ${ALARM_CURRENT_STATUS}",
    "recoverySubject": "Alarm ${ALARM_NAME} ${TITLE_ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}",
    "template": "Alarm ${ALARM_NAME} changes status to ${ALARM_CURRENT_STATUS}",
    "recoveryTemplate": "Alarm ${ALARM_NAME} Resource ${ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}",
    "defaultTemplate": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"email template","applicationPlatformType":"Email","subject":"Alarm ${ALARM_NAME} [${ALARM_METRIC} ${ALARM_COMPARISON_OPERATOR} threshold ${ALARM_THRESHOLD}] changes status to ${ALARM_CURRENT_STATUS}","recoverySubject":"Alarm ${ALARM_NAME} ${TITLE_ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}","template":"Alarm ${ALARM_NAME} changes status to ${ALARM_CURRENT_STATUS}","recoveryTemplate":"Alarm ${ALARM_NAME} Resource ${ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}"}}
```

```
to ${ALARM_CURRENT_STATUS}", "defaultTemplate":true}}' http://localhost:8080/zstack/v1/zwatch/alarms/sns/text-templates
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.3
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.3
applicationPlatformType	String	body (contained in the params structure)	The type of the SNS application platform.		2.3
template	String	body (contained in the params structure)	The template text.		2.3
recoveryTemplate	String	body (contained in the params structure)	The recovery template text , which is a string.		3.4.0
defaultTemplate	Boolean	body (contained in the params structure)	Optional. Whether to set the template as the default template.		2.3
resourceUuid	String	body (contained in the params structure)	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional.	- alarm - event - combined	5.1.8
tagUuids	List	body (contained in the params structure)	Optional. the tag UUID list.		5.1.8
subject	String	body (contained in the params structure)	Optional. The subject.		5.1.8
recoverySubject	String	body (contained in the params structure)	The recovery subject.		5.1.8

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "533c0a77d8694f068ea0425f587c9c2a",
    "name": "email template",
    "applicationPlatformType": "Email",
    "subject": "Alarm ${ALARM_NAME} [${ALARM_METRIC} ${ALARM_COMPARISON_OPERATOR} threshold ${ALARM_THRESHOLD}] changes status to ${ALARM_CURRENT_STATUS}",
    "recoverySubject": "Alarm ${ALARM_NAME} ${TITLE_ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}",
    "template": "Alarm ${ALARM_NAME} changes status to ${ALARM_CURRENT_STATUS}",
    "recoveryTemplate": "Resource ${EVENT_RESOURCE_ID} changes status to ${ALARM_CURRENT_STATUS}",
    "defaultTemplate": false,
    "createDate": "Jun 13, 2024 5:26:38 PM",
    "lastOpDate": "Jun 13, 2024 5:26:38 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	2.3

Name	Type	Description	Starting Version
		more information, see error .	
inventory	SNSTextTemplateInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3

Name	Type	Description	Starting Version
applicationPlatformType	String	The application platform type.	2.3
template	String	The template text.	2.3
defaultTemplate	Boolean	Whether to set the template as the default template.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
CreateSNSTextTemplateAction action = new CreateSNSTextTemplateAction();
action.name = "email template";
action.applicationPlatformType = "Email";
action.subject = "Alarm ${ALARM_NAME} [{${ALARM_METRIC} ${ALARM_COMPARISON_OPERATOR} threshold ${ALARM_THRESHOLD}] changes status to ${ALARM_CURRENT_STATUS}";
action.recoverySubject = "Alarm ${ALARM_NAME} ${TITLE_ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}";
action.template = "Alarm ${ALARM_NAME} changes status to ${ALARM_CURRENT_STATUS}";
action.recoveryTemplate = "Alarm ${ALARM_NAME} Resource ${ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}";
action.defaultTemplate = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSTextTemplateAction.Result res = action.call();
```

Python SDK

```
CreateSNSTextTemplateAction action = CreateSNSTextTemplateAction()
action.name = "email template"
action.applicationPlatformType = "Email"
action.subject = "Alarm ${ALARM_NAME} [{${ALARM_METRIC} ${ALARM_COMPARISON_OPERATOR} threshold ${ALARM_THRESHOLD}] changes status to ${ALARM_CURRENT_STATUS}"
action.recoverySubject = "Alarm ${ALARM_NAME} ${TITLE_ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}"
action.template = "Alarm ${ALARM_NAME} changes status to ${ALARM_CURRENT_STATUS}"
action.recoveryTemplate = "Alarm ${ALARM_NAME} Resource ${ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}"
action.defaultTemplate = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateSNSTextTemplateAction.Result res = action.call()
```

6.1.1.1.5.2 DeleteSNSTextTemplate

API Request

URLs

```
DELETE zstack/v1/zwatch/alarms/sns/text-templates/{uuid}?
deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/zwatch/alarms/sns/text-
templates/a4ce47e628303c4fa55743f1b84c61b4?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
deleteMode	String	url	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteSNSTextTemplateAction action = new DeleteSNSTextTemplateAction
();
action.uuid = "a4ce47e628303c4fa55743f1b84c61b4";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteSNSTextTemplateAction.Result res = action.call();
```

Python SDK

```
DeleteSNSTextTemplateAction action = DeleteSNSTextTemplateAction()
action.uuid = "a4ce47e628303c4fa55743f1b84c61b4"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteSNSTextTemplateAction.Result res = action.call()
```

6.1.1.1.5.3 UpdateSNSTextTemplate

API Request

URLs

```
PUT zstack/v1/zwatch/alarms/sns/text-templates/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSTextTemplate": {
    "name": "email template",
    "template": "Alarm ${ALARM_NAME} changes status to ${ALARM_CURR
ENT_STATUS}",
    "recoveryTemplate": "Alarm ${ALARM_NAME} Resource ${ALARM_RESO
URCE_NAME} changes status to ${ALARM_CURRENT_STATUS}",
    "defaultTemplate": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSTextTemplate":{"name":"email
template","template":"Alarm ${ALARM_NAME} changes status
to ${ALARM_CURRENT_STATUS}","recoveryTemplate":"Alarm
${ALARM_NAME} Resource ${ALARM_RESOURCE_NAME} changes status
to ${ALARM_CURRENT_STATUS}","defaultTemplate":true}}'
http://localhost:8080/zstack/v1/zwatch/alarms/sns/text-
templates/108482a9d3153463abd49712701ad937/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
name	String	body (contained in the updateSNSTextTemplate structure)	Optional. The resource name.		2.3
description	String	body (contained in the updateSNSTextTemplate structure)	Optional. The detailed description of the resource.		2.3
template	String	body (contained in the updateSNSTextTemplate structure)	Optional. The template text.		2.3
recoveryTemplate	String	body (contained in the updateSNST	Optional. The recovery template text , which is a string.		3.4.0

Name	Type	Location	Description	Optional Value	Starting Version
		extTemplate structure)			
defaultTemplate	Boolean	body (contained in the updateSNSTextTemplate structure)	Optional. Whether to set the template as the default template.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "cc881c03f4c04ea9a0e0dda61f4c2f00",
    "name": "email template",
    "applicationPlatformType": "Email",
    "template": "Alarm ${ALARM_NAME} changes status to ${ALARM_CURRENT_STATUS}",
    "recoveryTemplate": "Alarm ${ALARM_NAME} Resource ${ALARM_RESOURCE_NAME} changes status to ${ALARM_CURRENT_STATUS}",
    "defaultTemplate": false,
    "createDate": "Jul 6, 2018 1:51:22 PM",
    "lastOpDate": "Jul 6, 2018 1:51:22 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSTextTemplateInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
applicationPlatformType	String	The application platform type.	2.3
template	String	The template text.	2.3
recoveryTemplate	String	The recovery template text.	3.4.0
defaultTemplate	Boolean	Whether to set the template as the default template.	2.3

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
UpdateSNSTextTemplateAction action = new UpdateSNSTextTemplateAction
();
action.uuid = "108482a9d3153463abd49712701ad937";
action.name = "email template";
action.template = "Alarm ${ALARM_NAME} changes status to ${ALARM_CURR
ENT_STATUS}";
action.recoveryTemplate = "Alarm ${ALARM_NAME} Resource ${ALARM_RESO
URCE_NAME} changes status to ${ALARM_CURRENT_STATUS}";
action.defaultTemplate = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSTextTemplateAction.Result res = action.call();
```

Python SDK

```
UpdateSNSTextTemplateAction action = UpdateSNSTextTemplateAction()
action.uuid = "108482a9d3153463abd49712701ad937"
action.name = "email template"
action.template = "Alarm ${ALARM_NAME} changes status to ${ALARM_CURR
ENT_STATUS}"
action.recoveryTemplate = "Alarm ${ALARM_NAME} Resource ${ALARM_RESO
URCE_NAME} changes status to ${ALARM_CURRENT_STATUS}"
action.defaultTemplate = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSNSTextTemplateAction.Result res = action.call()
```

6.1.1.1.5.4 QuerySNSTextTemplate

API Request

URLs

```
GET zstack/v1/zwatch/alarms/sns/text-templates
GET zstack/v1/zwatch/alarms/sns/text-templates/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/zwatch/alarms/sns/text-templates?q=name=test
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/alarms/sns/text-templates/1dc97bd699e739c6968fb3e702ab4cb6
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSTextTemplate`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "c275ce35fae13a09bcd4c54a7406bd3e",
      "name": "Test-SNS-Template",
      "description": "sns text template",
      "applicationPlatformType": "Email",
      "template": "Alarm ${ALARM_NAME} status is changed to ${ALARM_CURRENT_STATUS}",
      "defaultTemplate": false,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventories	List	See inventories .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	2.3

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
applicationPlatformType	String	The application platform type.	2.3
template	String	The template text.	2.3
defaultTemplate	Boolean	Whether to set the template as the default template.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
QuerySNSTextTemplateAction action = new QuerySNSTextTemplateAction();
action.conditions = asList("name=test");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSTextTemplateAction.Result res = action.call();
```

Python SDK

```
QuerySNSTextTemplateAction action = QuerySNSTextTemplateAction()
action.conditions = ["name=test"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSTextTemplateAction.Result res = action.call()
```

6.1.1.1.5.5 CreateAliyunSmsSNSTextTemplate

API Request

URLs

```
POST zstack/v1/zwatch/alarms/sns/text-templates/aliyun-sms
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "sign": "Example",
    "alarmTemplateCode": "SMS_153055065",
    "eventTemplateCode": "SMS_153055066",
    "eventTemplate": "Event ${EVENT_NAME} happend.",
    "name": "aliyunSMS Template",
    "applicationPlatformType": "AliyunSms",
    "template": "Alarm ${ALARM_NAME} changes status to ${ALARM_CURR
ENT_STATUS}",
    "defaultTemplate": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"sign":"Example","alarmTemplateCode":"SMS_153055065","eventTemplateCode":"SMS_15
${EVENT_NAME} happend.", "name":"aliyunSMS
Template","applicationPlatformType":"AliyunSms", "template":"Alarm
${ALARM_NAME} changes status to
${ALARM_CURRENT_STATUS}","defaultTemplate":true}}' http://
localhost:8080/zstack/v1/zwatch/alarms/sns/text-templates/aliyun-sms
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sign	String	body (contained in the params structure)	The SMS signature.		3.7.0
alarmTemplateCode	String	body (contained in the params structure)	The resource alarm template code.		3.7.0
eventTemplateCode	String	body (contained in the params structure)	The event alarm template code.		3.7.0
eventTemplate	String	body (contained in the params structure)	Optional. The event alarm template text.		3.7.0
name	String	body (contained in the params structure)	The template name.		3.7.0
description	String	body (contained in the params structure)	Optional. The detailed description of the template.		3.7.0
applicationPlatformType	String	body (contained in	The type of the SNS		3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	application platform.		
template	String	body (contained in the params structure)	The resource alarm template text.		3.7.0
recoveryTemplate	String	body (contained in the params structure)	Optional. The recovery template text.		3.7.0
defaultTemplate	Boolean	body (contained in the params structure)	Optional. Whether to set the template as the default template.		3.7.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.7.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "335d5580cfad41d98e699d5d80830818",
    "name": "email template",
    "applicationPlatformType": "Email",
    "template": "Alarm ${ALARM_NAME} changes status to ${ALARM_CURRENT_STATUS}",
    "recoveryTemplate": "Resource ${EVENT_RESOURCE_ID} changes status to ${ALARM_CURRENT_STATUS}",
  }
}
```

```

    "defaultTemplate": false,
    "createDate": "Oct 8, 2019 5:31:52 PM",
    "lastOpDate": "Oct 8, 2019 5:31:52 PM"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	SNSTextTemplateInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
name	String	The resource name.	3.7.0
description	String	The detailed description of the resource.	3.7.0
applicationPlatformType	String	The application platform type.	3.7.0
template	String	The template text.	3.7.0
recoveryTemplate	String	The recovery template text.	3.7.0
defaultTemplate	Boolean	Whether to set the template as the default template.	3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

SDK Sample

Java SDK

```
CreateAliyunSmsSNSTextTemplateAction action = new CreateAliyunSmsSNSTextTemplateAction();
action.sign = "Example";
action.alarmTemplateCode = "SMS_153055065";
action.eventTemplateCode = "SMS_153055066";
action.eventTemplate = "Event ${EVENT_NAME} happend.";
action.name = "aliyunSMS Template";
action.applicationPlatformType = "AliyunSms";
action.template = "Alarm ${ALARM_NAME} changes status to ${ALARM_CURRENT_STATUS}";
action.defaultTemplate = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAliyunSmsSNSTextTemplateAction.Result res = action.call();
```

Python SDK

```
CreateAliyunSmsSNSTextTemplateAction action = CreateAliyunSmsSNSTextTemplateAction()
action.sign = "Example"
action.alarmTemplateCode = "SMS_153055065"
action.eventTemplateCode = "SMS_153055066"
action.eventTemplate = "Event ${EVENT_NAME} happend."
action.name = "aliyunSMS Template"
action.applicationPlatformType = "AliyunSms"
action.template = "Alarm ${ALARM_NAME} changes status to ${ALARM_CURRENT_STATUS}"
```

```

action.defaultTemplate = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateAliyunSmsSNSTextTemplateAction.Result res = action.call()

```

6.1.1.1.5.6 UpdateAliyunSmsSNSTextTemplate

API Request

URLs

```
PUT zstack/v1/zwatch/alarms/sns/text-templates/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "updateAliyunSmsSNSTextTemplate": {
    "alarmTemplateCode": "SMS_123456789",
    "sign": " Sample signature",
    "eventTemplateCode": "SMS_987654321",
    "eventTemplate": "your aliyun sms event template here",
    "name": "aliyunSmsTemplate",
    "description": "description",
    "template": "your aliyun sms alarm template here",
    "defaultTemplate": true
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAliyunSmsSNSTextTemplate":
{"alarmTemplateCode":"SMS_123456789","sign":" Sample
signature","eventTemplateCode":"SMS_987654321","eventTemplate":"your
aliyun sms event template
here","name":"aliyunSmsTemplate","description":"description","template":"your
aliyun sms alarm template here","defaultTemplate":true}}'
http://localhost:8080/zstack/v1/zwatch/alarms/sns/text-templates/
d7e89644ef273ca8baf451bf845553fd/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
alarmTemplateCode	String	body (contained in the updateAliyunSmsSNSTextTemplate structure)	Optional. The resource alarm template code.		3.7.0
sign	String	body (contained in the updateAliyunSmsSNSTextTemplate structure)	Optional. The SMS message signature.		3.7.0
eventTemplateCode	String	body (contained in the updateAliyunSmsSNSTextTemplate structure)	Optional. The event template code.		3.7.0
eventTemplate	String	body (contained in the updateAliyunSmsSNSTextTemplate structure)	Optional. The event alarm template text.		3.7.0
uuid	String	url	The template UUID.		3.7.0
name	String	body (contained in the updateAliyunSmsSNSTextTemplate structure)	Optional. The template name.		3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the updateAliyunSmsSNSTemplate structure)	Optional. The detailed description of the template.		3.7.0
template	String	body (contained in the updateAliyunSmsSNSTemplate structure)	Optional. The resource alarm template text.		3.7.0
recoveryTemplate	String	body (contained in the updateAliyunSmsSNSTemplate structure)	Optional. The recovery template text.		3.7.0
defaultTemplate	Boolean	body (contained in the updateAliyunSmsSNSTemplate structure)	Optional. Whether to set the template as the default template.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventory": {
    "alarmTemplateCode": "SMS_153055065",
```

```

"sign": " Sample signature",
"eventTemplateCode": "SMS_123456789",
"eventTemplate": "Event ${EVENT_NAME} had just happened",
"uuid": "f8b819b8af9c402fac43932ef95cb468",
"name": "email template",
"applicationPlatformType": "AliyunSms",
"template": "Alarm ${ALARM_NAME} changes status to ${ALARM_CURR
ENT_STATUS}",
"recoveryTemplate": "Resource ${EVENT_RESOURCE_ID} changes status
to ${ALARM_CURRENT_STATUS}",
"defaultTemplate": false,
"createDate": "Oct 8, 2019 5:32:12 PM",
"lastOpDate": "Oct 8, 2019 5:32:12 PM"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	AliyunSmsS NSTextTemp lateInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root	3.7.0

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
alarmTemplateCode	String	The resource alarm template code.	3.7.0
sign	String	The SMS message signature.	3.7.0
eventTemplateCode	String	The event alarm template code.	3.7.0
eventTemplate	String	The event alarm template text.	3.7.0
uuid	String	The template UUID.	3.7.0
name	String	The template name.	3.7.0
description	String	The detailed description of the template.	3.7.0
applicationPlatformType	String	The application platform type.	3.7.0
template	String	The resource alarm template text.	3.7.0
recoveryTemplate	String	The recovery template text.	3.7.0
defaultTemplate	Boolean	Whether to set the template as the default template.	3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

SDK Sample

Java SDK

```
UpdateAliyunSmsSNSTextTemplateAction action = new UpdateAliyunSmsSNSTextTemplateAction();
action.alarmTemplateCode = "SMS_123456789";
action.sign = " Sample signature";
action.eventTemplateCode = "SMS_987654321";
action.eventTemplate = "your aliyun sms event template here";
action.uuid = "d7e89644ef273ca8baf451bf845553fd";
action.name = "aliyunSmsTemplate";
action.description = "description";
action.template = "your aliyun sms alarm template here";
action.defaultTemplate = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAliyunSmsSNSTextTemplateAction.Result res = action.call();
```

Python SDK

```
UpdateAliyunSmsSNSTextTemplateAction action = UpdateAliyunSmsSNSTextTemplateAction()
action.alarmTemplateCode = "SMS_123456789"
action.sign = " Sample signature"
action.eventTemplateCode = "SMS_987654321"
action.eventTemplate = "your aliyun sms event template here"
action.uuid = "d7e89644ef273ca8baf451bf845553fd"
action.name = "aliyunSmsTemplate"
action.description = "description"
action.template = "your aliyun sms alarm template here"
action.defaultTemplate = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAliyunSmsSNSTextTemplateAction.Result res = action.call()
```

6.1.1.1.5.7 QueryAliyunSmsSNSTextTemplate

API Request

URLs

```
GET zstack/v1/zwatch/alarms/sns/text-templates/aliyun-sms
GET zstack/v1/zwatch/alarms/sns/text-templates/aliyun-sms/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/alarms/sns/text-templates/aliyun-sms?q=smsTemplateCode=SMS_123456789
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/zwatch/alarms/sns/text-  
templates/aliyun-sms/f7ffc76a46233bc590acd41e1954ed29
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAliyunSmsSNSTextTemplate**, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{  
  "error": {  
    "code": "SYS.1001",  
    "description": "A message or a operation timeout",  
    "details": "Create VM on KVM timeout after 300s"  
  }  
}
```

SDK Sample

Java SDK

```
QueryAliyunSmsSNSTextTemplateAction action = new QueryAliyunSmsSNSTextTemplateAction();  
action.conditions = asList("smsTemplateCode=SMS_123456789");  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
QueryAliyunSmsSNSTextTemplateAction.Result res = action.call();
```

Python SDK

```
QueryAliyunSmsSNSTextTemplateAction action = QueryAliyunSmsSNSTextTemplateAction()  
action.conditions = ["smsTemplateCode=SMS_123456789"]  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryAliyunSmsSNSTextTemplateAction.Result res = action.call()
```

6.1.1.1.6 Audit Operations

6.1.1.1.6.1 GetAuditData

API Request

URLs

```
GET zstack/v1/zwatch/audits
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/audits?
startTime=1.557300700509E12&limit=50.0&auditType=Resource
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
startTime	Long	query	Optional. The start time.		2.3
endTime	Long	query	Optional. The end time.		2.3
limit	Integer	query	Optional. The maximum number of returned records.		2.3
labels	List	query	Optional. The filter label list.		2.3
auditType	AuditType	query	Optional. The audit type.	- Login - Resource	3.5.0
systemTags	List	query	Optional. The system tags.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	query	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "audits": [
    {
      "resourceUuid": "b1ca3fab6ebc4302ad9249d5402cb06c",
      "resourceType": "VmInstanceV0",
      "clientId": "172.0.0.1",
      "clientBrowser": "Chrome/69.0.3497.81",
      "apiName": "org.zstack.header.vm.APISetVmRDPMsg",
      "operatorAccountUuid": "36c27e8ff05c4780bf6d2fa65700f22e",
      "duration": 22.0,
      "requestUuid": "d78093c0b2fb3850b3ce563b3a0b029d",
      "responseUuid": "08cf3fd2c4614811b4acc0620e20a98e",
      "sessionUuid": "05e5c663eb794faab5c5606c38103a17",
      "responseDump": "{\"success\":true}",
      "time": 1.512037844556E12
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
audits	List	See audits .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#audits

Name	Type	Description	Starting Version
resourceUuid	String	The resource UUID.	2.3
resourceType	String	The resource type.	2.3
apiName	String	The API name.	2.3
error	String	The details about the error.	2.3
operatorAccountUuid	String	The UUID of the account that initiated the API.	2.3
duration	long	The API duration.	2.3
requestUuid	String	The API request UUID.	2.3
responseUuid	String	The API response UUID.	2.3
sessionUuid	String	The session UUID.	2.3
requestDump	String	The JSON archive of the API request.	2.3

Name	Type	Description	Starting Version
responseDump	String	The JSON archive of the API response.	2.3
time	long	The time that the record was generated.	2.3

SDK Sample

Java SDK

```
GetAuditDataAction action = new GetAuditDataAction();
action.startTime = 1.557300701132E12;
action.limit = 50.0;
action.conditions = asList("VMUuid=4ca37b1e21e846bf8d35b23d4138489c");
action.auditType = "Resource";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetAuditDataAction.Result res = action.call();
```

Python SDK

```
GetAuditDataAction action = GetAuditDataAction()
action.startTime = 1.557300701178E12
action.limit = 50.0
action.conditions = [VMUuid=6623c395df0d44b6afc3732e76aac0ac]
action.auditType = "Resource"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetAuditDataAction.Result res = action.call()
```

6.1.1.2 SNS Operations

6.1.1.2.1 CreateSNSTopic

API Request

URLs

```
POST zstack/v1/sns/topics
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "api topic"
    "locale": "zh_CN"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"api topic"}}' \
http://localhost:8080/zstack/v1/sns/topics
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.3
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.3
resourceUuid	String	body (contained in the params structure)	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
tagUuids	List	body (contained in the params structure)	The tag uuid list.		5.0.0
locale	String	body (contained in the params structure)	The internationalized language.	- zh_CN - en_EN	5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a3a307316bb543e786b6dcac39847642",
    "name": "new name",
    "state": "Enabled",
    "locale": "zh_CN",
    "createDate": "Dec 25, 2023 2:08:21 PM",
    "lastOpDate": "Dec 25, 2023 2:08:21 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSTopicInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root	0.6

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
state	String	The state.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
createDate	Timestamp	The creation date.	2.3

SDK Sample

Java SDK

```
CreateSNSTopicAction action = new CreateSNSTopicAction();
action.name = "api topic";
action.locale = "zh_CN";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSTopicAction.Result res = action.call();
```

Python SDK

```
CreateSNSTopicAction action = CreateSNSTopicAction()
action.name = "api topic"
action.locale = "zh_CN"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateSNSTopicAction.Result res = action.call()
```

6.1.1.2.2 DeleteSNSTopic

API Request

URLs

```
DELETE zstack/v1/sns/topics/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/sns/
topics/2e5e362e1a7836618d6cce49fba21e78
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
deleteMode	String	body	Optional.		5.0.0
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteSNSTopicAction action = new DeleteSNSTopicAction();
action.uuid = "2e5e362e1a7836618d6cce49fba21e78";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteSNSTopicAction.Result res = action.call();
```

Python SDK

```
DeleteSNSTopicAction action = DeleteSNSTopicAction()
action.uuid = "2e5e362e1a7836618d6cce49fba21e78"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteSNSTopicAction.Result res = action.call()
```

6.1.1.2.3 ChangeSNSTopicState

API Request

URLs

```
PUT zstack/v1/zwatch/topics/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeSNSTopicState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeSNSTopicState":{"stateEvent":"disable"}}' \
```

```
http://localhost:8080/zstack/v1/zwatch/
topics/89f0adcff110385a8a8fa2568a744ab5/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
stateEvent	String	body (contained in the changeSNSTopicState structure)	The state event.	• enable • disable	2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Repossess

```
{
  "inventory": {
    "uuid": "54a92ecb4ed346e0b1af4747b65d01a7",
    "name": "new name",
    "state": "Enabled",
    "locale": "zh_CN",
    "createDate": "Dec 25, 2023 2:08:19 PM",
    "lastOpDate": "Dec 25, 2023 2:08:19 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSTopicInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
state	String	The state.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
createDate	Timestamp	The creation date.	2.3

SDK Sample

Java SDK

```
ChangeSNSTopicStateAction action = new ChangeSNSTopicStateAction();
action.uuid = "89f0adcff110385a8a8fa2568a744ab5";
action.stateEvent = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeSNSTopicStateAction.Result res = action.call();
```

Python SDK

```
ChangeSNSTopicStateAction action = ChangeSNSTopicStateAction()
action.uuid = "89f0adcff110385a8a8fa2568a744ab5"
action.stateEvent = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeSNSTopicStateAction.Result res = action.call()
```

6.1.1.2.4 UpdateSNSTopic

API Request

URLs

```
PUT zstack/v1/sns/topics/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSTopic": {
    "name": "new name",
    "locale": "zh_CN"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSTopic":{"name":"new name","locale":"zh_CN"}}' \
```

```
http://localhost:8080/zstack/v1/sns/
topics/3e7550bf8ead3f02b366df6e499dc285/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
name	String	body (contained in the updateSNSTopic structure)	Optional. The resource name.		2.3
description	String	body (contained in the updateSNSTopic structure)	Optional. The detailed description of the resource.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
locale	String	body (contained in the updateSNSTopic structure)	Optional. The internalization language.	- zh_CN - en_US	5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1a688d109d5e4f1b90a2b1b6b7d90c07",
    "name": "new name",
    "state": "Enabled",
    "locale": "zh_CN",
    "createDate": "Dec 25, 2023 2:06:14 PM",
    "lastOpDate": "Dec 25, 2023 2:06:14 PM"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSTopicInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
state	String	The state.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
UpdateSNSTopicAction action = new UpdateSNSTopicAction();
action.uuid = "3e7550bf8ead3f02b366df6e499dc285";
action.name = "new name";
action.locale = "zh_CN";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSTopicAction.Result res = action.call();
```

Python SDK

```
UpdateSNSTopicAction action = UpdateSNSTopicAction()
action.uuid = "3e7550bf8ead3f02b366df6e499dc285"
action.name = "new name"
action.locale = "zh_CN"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSNSTopicAction.Result res = action.call()
```

6.1.1.2.5 QuerySNSTopic

API Request

URLs

```
GET zstack/v1/sns/topics
GET zstack/v1/sns/topics/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/sns/topics?q=name=api
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/topics/
b47d348c8c4a3559af1b09f31f7c26eb
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSTopic`, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "988a911a699447559744161ce34c2676",
      "name": "new name",
      "state": "Enabled",
      "locale": "zh_CN",
      "createDate": "Dec 25, 2023 2:07:11 PM",
      "lastOpDate": "Dec 25, 2023 2:07:11 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventories	List	See inventories .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
state	String	The state.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
QuerySNSTopicAction action = new QuerySNSTopicAction();
action.conditions = asList("name=api");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSTopicAction.Result res = action.call();
```

Python SDK

```
QuerySNSTopicAction action = QuerySNSTopicAction()
action.conditions = ["name=api"]
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSTopicAction.Result res = action.call()
```

6.1.1.2.6 CreateSNSEmailPlatform

API Request

URLs

```
POST zstack/v1/sns/application-platforms/email
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "smtpServer": "email.zstack.io",
    "smtpPort": 20.0,
    "username": "example@zstack.io",
    "password": "password",
    "encryptType": "STARTTLS",
    "name": "email platform"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"smtpServer": "email.zstack.io", "smtpPort": 20.0, "username": "example@zstack.io", "p
platform"}}' \
http://localhost:8080/zstack/v1/sns/application-platforms/email
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
smtpServer	String	body (contained in	The SMTP server address.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
smtpPort	Integer	body (contained in the params structure)	The SMTP port.		2.3
username	String	body (contained in the params structure)	The username .		2.3
password	String	body (contained in the params structure)	Optional. The password.		2.3
name	String	body (contained in the params structure)	The resource name.		2.3
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.3
resourceUuid	String	body (contained in the params structure)	Optional.		2.3
encryptType	String	body (contained in the params structure)	Optional.	• SSL • STARTTLS • NONE	2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

**Note:**

- When you add an email server, the system will automatically detect whether the username, password, email server address, email server port, and encryption type are correct. The waiting time does not exceed 5 seconds.

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "f6122105d8994b498e6184efcf03bb64",
    "name": "email platform",
    "description": "example description",
    "state": "Enabled",
    "type": "Email",
    "createDate": "Feb 28, 2018 9:47:35 AM",
    "lastOpDate": "Feb 28, 2018 9:47:35 AM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSApplicationPlatformInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
type	String	The type.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
CreateSNSEmailPlatformAction action = new CreateSNSEmailPlatformAction
();
action.smtpServer = "email.zstack.io";
action.smtpPort = 20.0;
action.username = "example@zstack.io";
action.password = "password";
action.encryptType = "STARTTLS";
action.name = "email platform";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSEmailPlatformAction.Result res = action.call();
```

Python SDK

```
CreateSNSEmailPlatformAction action = CreateSNSEmailPlatformAction()
action.smtpServer = "email.zstack.io"
action.smtpPort = 20.0
action.username = "example@zstack.io"
action.password = "password"
action.encryptType = "STARTTLS"
action.name = "email platform"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSNSEmailPlatformAction.Result res = action.call()
```

6.1.1.2.7 ValidateSNSEmailPlatform

API Request

URLs

```
PUT zstack/v1/sns/application-platforms/email/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "validateSNSEmailPlatform": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"validateSNSEmailPlatform":{}}' \
http://localhost:8080/zstack/v1/sns/application-platforms/email/
ee6f4b67dc7e3b298353a6fe2b5d0a6f/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ValidateSNSEmailPlatformAction action = new ValidateSNSEmailPlatformAction();
action.uuid = "ee6f4b67dc7e3b298353a6fe2b5d0a6f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ValidateSNSEmailPlatformAction.Result res = action.call();
```

Python SDK

```
ValidateSNSEmailPlatformAction action = ValidateSNSEmailPlatformAction()
action.uuid = "ee6f4b67dc7e3b298353a6fe2b5d0a6f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ValidateSNSEmailPlatformAction.Result res = action.call()
```

6.1.1.2.8 DeleteSNSApplicationPlatform

API Request

URLs

```
DELETE zstack/v1/sns/application-platforms/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/sns/application-platforms/992bf9e24f6f3f25866956f8079ffadc
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
deleteMode	String	body	Optional.		5.0.0
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteSNSApplicationPlatformAction action = new DeleteSNSApplicationPlatformAction();
action.uuid = "992bf9e24f6f3f25866956f8079ffadc";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteSNSApplicationPlatformAction.Result res = action.call();
```

Python SDK

```
DeleteSNSApplicationPlatformAction action = DeleteSNSApplicationPlatformAction()
action.uuid = "992bf9e24f6f3f25866956f8079ffadc"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteSNSApplicationPlatformAction.Result res = action.call()
```

6.1.1.2.9 QuerySNSEmailPlatform

API Request

URLs

```
GET zstack/v1/sns/application-platforms/email
GET zstack/v1/sns/application-platforms/email/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-platforms/
email?q=name=email
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-platforms/
email/fe6d6cd0fbf53a4eaa772f326972d765
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSEmailPlatform`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QuerySNSEmailPlatformAction action = new QuerySNSEmailPlatformAction
();
action.conditions = asList("name=email");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QuerySNSEmailPlatformAction.Result res = action.call();
```

Python SDK

```
QuerySNSEmailPlatformAction action = QuerySNSEmailPlatformAction()
action.conditions = ["name=email"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSEmailPlatformAction.Result res = action.call()
```

6.1.1.2.10 UpdateSNSApplicationPlatform

API Request

URLs

```
PUT zstack/v1/sns/application-platforms/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSApplicationPlatform": {
    "name": "new name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSApplicationPlatform":{"name":"new name"}}' \
http://localhost:8080/zstack/v1/sns/application-
platforms/577aff1dcbe932798fd615e88813c7ce/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	Optional. The resource UUID.		2.3
name	String	body (contained in the updateSNSApplicationPlatform structure)	Optional. The resource name.		2.3
description	String	body (contained in the updateSNSApplicationPlatform structure)	Optional. The detailed description of the resource.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5687e054cc0744f0b048e825b5b9475f",
    "name": "email platform",
    "description": "example description",
    "state": "Enabled",
    "type": "Email",
    "createDate": "Dec 25, 2023 2:06:02 PM",
    "lastOpDate": "Dec 25, 2023 2:06:02 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSApplicationPlatformInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.3
type	String	The type.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
UpdateSNSApplicationPlatformAction action = new UpdateSNSApplicationPlatformAction();
action.uuid = "577aff1dcbe932798fd615e88813c7ce";
action.name = "new name";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSApplicationPlatformAction.Result res = action.call();
```

Python SDK

```
UpdateSNSApplicationPlatformAction action = UpdateSNSApplicationPlatformAction()
action.uuid = "577aff1dcbe932798fd615e88813c7ce"
action.name = "new name"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSNSApplicationPlatformAction.Result res = action.call()
```

6.1.1.2.11 QuerySNSApplicationPlatform

API Request

URLs

```
GET zstack/v1/sns/application-platforms
GET zstack/v1/sns/application-platforms/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-platforms?q=state=Enabled
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/sns/application-platforms/  
b9a635c9ff7c3544a232cad5b9a4aaf7
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSApplicationPlatform`, and pressing the **Tab** key.

API Response

Sample Response

```
{  
  "inventories": [  
    {  
      "uuid": "c418160d00ff407986dde8bd10a7f0c4",  
      "name": "email platform",  
      "description": "example description",  
      "state": "Enabled",  
      "type": "Email",  
      "createDate": "Dec 25, 2023 2:06:03 PM",  
      "lastOpDate": "Dec 25, 2023 2:06:03 PM"  
    }  
  ]  
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventories	List	See inventories .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
type	String	The type.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
QuerySNSApplicationPlatformAction action = new QuerySNSApplicationPlatformAction();
action.conditions = asList("state=Enabled");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSApplicationPlatformAction.Result res = action.call();
```

Python SDK

```
QuerySNSApplicationPlatformAction action = QuerySNSApplicationPlatformAction()
action.conditions = ["state=Enabled"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QuerySNSApplicationPlatformAction.Result res = action.call()
```

6.1.1.2.12 ChangeSNSApplicationPlatformState

API Request

URLs

```
PUT zstack/v1/sns/application-platforms/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeSNSApplicationPlatformState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeSNSApplicationPlatformState":
{"stateEvent":"enable"}}' \
http://localhost:8080/zstack/v1/sns/application-platforms/
bf16a9b0315a3942afb8b7f29e1287eb/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
stateEvent	String	body (contained in the changeSNSA pplication)	The state event.	- enable - disable	2.3

Name	Type	Location	Description	Optional Value	Starting Version
		PlatformState structure)			
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "c41b8b33a85b4d539684b43f0cde156b",
    "name": "email platform",
    "description": "example description",
    "state": "Enabled",
    "type": "Email",
    "createDate": "Dec 25, 2023 2:03:32 PM",
    "lastOpDate": "Dec 25, 2023 2:03:32 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSApplicationPlatformInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
type	String	The type.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
createDate	Timestamp	The creation date.	2.3

SDK Sample

Java SDK

```
ChangeSNSApplicationPlatformStateAction action = new ChangeSNSApplicationPlatformStateAction();
action.uuid = "bf16a9b0315a3942afb8b7f29e1287eb";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ChangeSNSApplicationPlatformStateAction.Result res = action.call();
```

Python SDK

```
ChangeSNSApplicationPlatformStateAction action = ChangeSNSApplicationPlatformStateAction()
action.uuid = "bf16a9b0315a3942afb8b7f29e1287eb"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeSNSApplicationPlatformStateAction.Result res = action.call()
```

6.1.1.2.13 CreateSNSEmailEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/emails
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "email": "example@zstack.io",
    "emails": [
      "example@zstack.io"
    ],
    "name": "email",
    "platformUuid": "5efc525948a537e39a91290c57d6d37b"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"email":"example@zstack.io","emails":["example@zstack.io"],"name":"email","platformUuid":"5efc525948a537e39a91290c57d6d37b"},"systemTags":[],"userTags":[]}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/emails
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
email	String	body (contained in the params structure)	Optional. The email address.		2.3.0
emails	List	body (contained in the params structure)	Optional.		3.7.0
name	String	body (contained in the params structure)	The resource name.		5.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		5.0.0
platformUuid	String	body (contained in the params structure)	Optional. The application platform UUID.		5.0.0
resourceUuid	String	body (contained in the params structure)	Optional.		5.0.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.7.0
systemTags	List	body	Optional. The system tags.		2.3.0
userTags	List	body	Optional. The user tags.		2.3.0

API Response

Sample Response

```
{
```

```

"inventory": {
  "name": "example",
  "uuid": "917fe66f76b241f0843dfbd6be685fc1",
  "description": "description example",
  "type": "Email",
  "state": "Enabled",
  "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
  "createDate": "Dec 25, 2023 2:03:24 PM",
  "lastOpDate": "Dec 25, 2023 2:03:24 PM"
}
}

```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSApplicationEndpointInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	0.6

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
uuid	String	The resource UUID.	2.3
description	String	The detailed description of the resource.	2.3
type	String	The type.	2.3
platformUuid	String	The application platform UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
CreateSNSEmailEndpointAction action = new CreateSNSEmailEndpointAction();
action.email = "example@zstack.io";
action.emails = asList("example@zstack.io");
action.name = "email";
action.platformUuid = "5efc525948a537e39a91290c57d6d37b";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSEmailEndpointAction.Result res = action.call();
```

Python SDK

```
CreateSNSEmailEndpointAction action = CreateSNSEmailEndpointAction()
action.email = "example@zstack.io"
action.emails = [example@zstack.io]
action.name = "email"
action.platformUuid = "5efc525948a537e39a91290c57d6d37b"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
CreateSNSEmailEndpointAction.Result res = action.call()
```

6.1.1.2.14 SNSEmailTestConnection

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/email/test-connection
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "emails": [
      "example@zstack.io"
    ],
    "platformUuid": "d5904b92d6df39a5905212bde24b2946",
    "endpointUuid": "2ff88c96f20f36469bdfcd2fa84e533d",
    "subject": "test email subject",
    "text": "this is a test email of content"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"emails":
["example@zstack.io"],"platformUuid":"d5904b92d6df39a5905212bde24b2946","endpoint
email subject","text":"this is a test email of content"}}' http://
localhost:8080/zstack/v1/sns/application-endpoints/email/test-
connection
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
emails	List	body (contained in the params structure)	Optional. The email addresses.		5.1.8
platformUuid	String	body (contained in the params structure)	Optional. The email platform UUID.		5.1.8
endpointUuid	String	body (contained in the params structure)	Optional. The email endpoint UUID.		5.1.8
subject	String	body (contained in the params structure)	Optional. The subject.		5.1.8
text	String	body (contained in the params structure)	Optional. The text.		5.1.8
systemTags	List	body	Optional. The system tags.		5.1.8
userTags	List	body	Optional. The user tags.		5.1.8

API Response

Sample Response

```
{
  "connected": true,
  "webhookResp": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.8
connected	boolean	The test text sending result.	5.1.8

Name	Type	Description	Starting Version
webhookResp	LinkedHashMap	The response from the endpoint.	5.1.8
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.8

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.8
description	String	The brief description of the error.	5.1.8
details	String	The details about the error.	5.1.8
elaboration	String	The reserved field. Default value: null.	5.1.8
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.8
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.8

SDK Sample

Java SDK

```

SNSEmailTestConnectionAction action = new SNSEmailTestConnectionAction
();
action.emails = asList("example@zstack.io");
action.platformUuid = "d5904b92d6df39a5905212bde24b2946";
action.endpointUuid = "2ff88c96f20f36469bdfcd2fa84e533d";

```

```
action.subject = "test email subject";
action.text = "this is a test email of content";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SNSEmailTestConnectionAction.Result res = action.call();
```

Python SDK

```
SNSEmailTestConnectionAction action = SNSEmailTestConnectionAction()
action.emails = [example@zstack.io]
action.platformUuid = "d5904b92d6df39a5905212bde24b2946"
action.endpointUuid = "2ff88c96f20f36469bdfcd2fa84e533d"
action.subject = "test email subject"
action.text = "this is a test email of content"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SNSEmailTestConnectionAction.Result res = action.call()
```

6.1.1.2.15 QuerySNSEmailEndpoint

API Request

URLs

```
GET zstack/v1/sns/application-endpoints/emails
GET zstack/v1/sns/application-endpoints/emails/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/
emails?q=email=test@zstack.io
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/
emails/bbae379b811f3d18a422d73557ece1b1
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSEmailEndpoint`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
```

```

        "code": "SYS.1001",
        "description": "A message or a operation timeout",
        "details": "Create VM on KVM timeout after 300s"
    }
}

```

SDK Sample

Java SDK

```

QuerySNSEmailEndpointAction action = new QuerySNSEmailEndpointAction
();
action.conditions = asList("email=test@zstack.io");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSEmailEndpointAction.Result res = action.call();

```

Python SDK

```

QuerySNSEmailEndpointAction action = QuerySNSEmailEndpointAction()
action.conditions = ["email=test@zstack.io"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSEmailEndpointAction.Result res = action.call()

```

6.1.1.2.16 CreateSNSHttpEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/http
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "url": "http://127.0.0.1:6666/test-url",
    "username": "username",
    "password": "password",
    "name": "http"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"http://127.0.0.1:6666/test-url","username":"username","password":"password","name":"http"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/http
```

Request Parameters

Name	Type	Location	Description	Optimal Value	Starting Version
url	String	body (contained in the params structure)	The HTTP webhook URL.		2.3
username	String	body (contained in the params structure)	Optional. The username of the URL.		2.3
password	String	body (contained in the params structure)	Optional. The password of the URL.		2.3
name	String	body (contained in the params structure)	The resource name.		2.3
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.3
resourceUuid	String	body (contained in the params structure)	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

Name	Type	Location	Description	Optimal Value	Starting Version
platformUuid	String	body (contained in the params structure)	Optional.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
CreateSNSHttpEndpointAction action = new CreateSNSHttpEndpointAction
();
action.url = "http://127.0.0.1:6666/test-url";
action.username = "username";
action.password = "password";
action.name = "http";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSHttpEndpointAction.Result res = action.call();
```

Python SDK

```
CreateSNSHttpEndpointAction action = CreateSNSHttpEndpointAction()
action.url = "http://127.0.0.1:6666/test-url"
action.username = "username"
action.password = "password"
action.name = "http"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateSNSHttpEndpointAction.Result res = action.call()
```

6.1.1.2.17 SNSHttpTestConnection

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/http/test-connection
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81",
    "username": "admin",
    "password": "password",
    "endpointUuid": "1c201c27a81740ddadbc5d2f3f38a5e4"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81","username":"admin","password":"password","endpointUuid":"1c201c27a81740ddadbc5d2f3f38a5e4"},"systemTags":[],"userTags":[]}' http://localhost:8080/zstack/v1/sns/application-endpoints/http/test-connection
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
url	String	body (contained in	Optional. The webhook URL.		5.1.8

Name	Type	Location	Description	Valid Values	Starting Version
		the params structure)			
username	String	body (contained in the params structure)	Optional. The Basic Auth user name.		5.1.8
password	String	body (contained in the params structure)	Optional. The Basic Auth password.		5.1.8
endpointUuid	String	body (contained in the params structure)	Optional. The endpoint UUID .		5.1.8
systemTags	List	body	Optional. The system tags.		5.1.8
userTags	List	body	Optional. The user tags.		5.1.8

API Response

Sample Response

```
{
  "connected": true,
  "webhookResp": "{\u0027result\u0027: \u0027success\u0027}"
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.8
connected	boolean	The test text sending result.	5.1.8
webhookResp	LinkedHashMap	The response from the endpoint.	5.1.8
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	5.1.8

Name	Type	Description	Starting Version
		more information, see error	

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.1.8
description	String	The brief description of the error.	5.1.8
details	String	The details about the error.	5.1.8
elaboration	String	The reserved field. Default value: null.	5.1.8
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.8
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.8

SDK Sample

Java SDK

```
SNSHttpTestConnectionAction action = new SNSHttpTestConnectionAction
();
action.url = "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-
0898-4428-aad4-3221db3daf81";
action.username = "admin";
action.password = "password";
action.endpointUuid = "1c201c27a81740ddadbc5d2f3f38a5e4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
SNSHttpTestConnectionAction.Result res = action.call();
```

Python SDK

```
SNSHttpTestConnectionAction action = SNSHttpTestConnectionAction()
action.url = "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81"
action.username = "admin"
action.password = "password"
action.endpointUuid = "1c201c27a81740ddadbc5d2f3f38a5e4"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SNSHttpTestConnectionAction.Result res = action.call()
```

6.1.1.2.18 QuerySNSHttpEndpoint

API Request

URLs

```
GET zstack/v1/sns/application-endpoints/http
GET zstack/v1/sns/application-endpoints/http/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/http?
q=url=http://url
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/http/
cbd9163bb4683e10b8a5025621e36862
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSHttpEndpoint`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
}
```

SDK Sample

Java SDK

```
QuerySNSHttpEndpointAction action = new QuerySNSHttpEndpointAction();
action.conditions = asList("url=http://url");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSHttpEndpointAction.Result res = action.call();
```

Python SDK

```
QuerySNSHttpEndpointAction action = QuerySNSHttpEndpointAction()
action.conditions = ["url=http://url"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSHttpEndpointAction.Result res = action.call()
```

6.1.1.2.19 CreateSNSDingTalkEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/ding-talk
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "http://dingding-robot-url",
    "atAll": false,
    "secret": "SECca7c224f47ab16fbe51050ae0b8ebfc505b2b866fc0eb3768c8d79527d1bacc0",
    "atPersonPhoneNumbers": [
      "18900002222",
      "13377778888"
    ],
    "atPersonList": {
      "13377778888": "jack"
    },
    "name": "dinding"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"http://dingding-robot-
url","atAll":false,"secret":"SECca7c224f47ab16fbe51050ae0b8ebfc505b2b866fc0eb3768
["18900002222","13377778888"],"atPersonList":
{"13377778888":"jack"},"name":"dinding"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/ding-talk
```

Request Parameters

Name	Type	Location	Description	Options Value	Starting Version
url	String	body (contained in the params structure)	The URL of the DingTalk robot.		2.3
atAll	Boolean	body (contained in the params structure)	Optional. Whether to notify all (@All) members in a DingTalk group.		2.3
atPersonPhoneNumbers	List	body (contained in the params structure)	Optional. The phone number of the group member to be notified (the @ member).		2.3
name	String	body (contained in the params structure)	The resource name.		2.3
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.3
resourceUuid	String	body (contained in	Optional.		2.3

Name	Type	Location	Description	Options Value	Starting Version
		the params structure)			
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
platformUuid	String	body (contained in the params structure)	Optional. The notification platform.		5.0.0
tagUuids	List	body (contained in the params structure)	Optional. The tag uuid list.		5.0.0
secret	String	body (contained in the params structure)	Optional. The DingTalk secret key.		5.0.0
atPersonList	Map	body (contained in the params structure)	Optional. The @person information. (Recommend)		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "url": "http://dingding-url",
    "atAll": false,
    "secret": "SECca7c224f47ab16fbe51050ae0b8ebfc505b2b866fc0eb3768c8d79527d1bacc0",
    "atPersonPhoneNumbers": [
      "18900001111"
    ],
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:05:12 PM",
    "lastOpDate": "Dec 25, 2023 2:05:12 PM"
  }
}
```

```
}
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSDingTalkEndpointInventory	See inventory	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
url	String	The URL of the DingTalk robot.	2.3
atAll	boolean	Whether to notify all (@All) members in a DingTalk group.	2.3
secret	String	The DingTalk secret key.	5.0.0
atPersonPhoneNumbers	List	The phone number of the group member to be notified (the @ member).	2.3
name	String	The resource name.	2.3
uuid	String	The resource UUID.	2.3
description	String	The detailed description of the resource.	2.3
type	String	The endpoint type.	2.3
state	String	The application platform.	5.0.0
platformUuid	String	The application platform UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
platform	SNSApplicationPlatformInventory	See platform .	5.0.0

platform

Name	Type	Description	Starting Version
uuid	String	The resource uuid.	5.0.0
name	String	The resource name.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The resource type.	5.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
CreateSNSDingTalkEndpointAction action = new CreateSNSDingTalkEndpointAction();
action.url = "http://dingding-robot-url";
action.atAll = false;
action.atPersonPhoneNumbers = asList("18900002222", "13377778888");
action.name = "dinding";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSDingTalkEndpointAction.Result res = action.call();
```

Python SDK

```
CreateSNSDingTalkEndpointAction action = CreateSNSDingTalkEndpointAction()
action.url = "http://dingding-robot-url"
action.atAll = false
action.atPersonPhoneNumbers = [18900002222, 13377778888]
action.name = "dinding"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSNSDingTalkEndpointAction.Result res = action.call()
```

6.1.1.2.20 AddSNSDingTalkAtPerson

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/ding-talk/at-persons
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "phoneNumber": "18099997777",
    "endpointUuid": "5b9b95ca0cda3ab4bb51b5a4e1965305",
    "remark": "jack"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"phoneNumber":"18099997777","endpointUuid":"5b9b95ca0cda3ab4bb51b5a4e1965305"},"r
\
http://localhost:8080/zstack/v1/sns/application-endpoints/ding-talk/
at-persons
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
phoneNumber	String	body (contained in the params structure)	The phone number of the DingTalk user. (Users register DingTalk with their phone numbers.)		2.3
endpointUuid	String	body (contained in the params structure)	The UUID of the DingTalk endpoint.		2.3
resourceUuid	String	body (contained in the params structure)	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
tagUuid	List	body (contained in	Optional. The tag uuid list.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
remark	String	body (contained in the params structure)	Optional. The remark.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "af3c83c835234d11b1afe022e85d67ec",
    "phoneNumber": "18988887777",
    "endpointUuid": "7b9b311a1a6c445bbe48c02b52f91ef6",
    "createDate": "Dec 25, 2023 2:07:43 PM",
    "lastOpDate": "Dec 25, 2023 2:07:43 PM",
    "remark": "jack"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSDingTal kAtPersonInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
phoneNumber	String	The phone number of the DingTalk user.	5.0.0
endpointUuid	String	The UUID of the DingTalk endpoint.	5.0.0

SDK Sample

Java SDK

```
AddSNSDingTalkAtPersonAction action = new AddSNSDingTalkAtPersonAction();
action.phoneNumber = "18099997777";
action.endpointUuid = "5b9b95ca0cda3ab4bb51b5a4e1965305";
action.remark = "jack";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddSNSDingTalkAtPersonAction.Result res = action.call();
```

Python SDK

```
AddSNSDingTalkAtPersonAction action = AddSNSDingTalkAtPersonAction()
action.phoneNumber = "18099997777"
action.endpointUuid = "5b9b95ca0cda3ab4bb51b5a4e1965305"
action.remark = "jack"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddSNSDingTalkAtPersonAction.Result res = action.call()
```

6.1.1.2.21 SNSDingTalkTestConnection

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/ding-talk/test-connection
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81",
    "atAll": true,
    "atPersonPhoneNumbers": [
      "13062689903",
      "13062689901"
    ],
    "secret": "SEcf8310c22767fe6f7cc5c00c6c4b1343605c445e9adaa28e39138749127a1c962",
    "testMsg": "hello world",
    "endpointUuid": "1c201c27a81740ddadbc5d2f3f38a5e4"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81","atAll":true,"atPersonPhoneNumbers":["13062689903","13062689901"],"secret":"SEcf8310c22767fe6f7cc5c00c6c4b1343605c445e9adaa28e39138749127a1c962","testMsg":"hello world","endpointUuid":"1c201c27a81740ddadbc5d2f3f38a5e4"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/ding-talk/test-connection
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
testMsg	String	body (contained in the params structure)	Testing message text.		5.0.0
endpointUuid	String	body (contained in the params structure)	Optional. DingTalk endpoint uuid.		5.0.0
systemTags	List	body	Optional. The system tag.		5.0.0
userTags	List	body	Optional. The user tag.		5.0.0
url	String	body (contained in the params structure)	Optional. The webhook url.		5.0.0
atAll	Boolean	body (contained in the params structure)	Optional. Whether @all or not.		5.0.0
atPersonPhoneNumbers	List	body (contained in the params structure)	Optional. @ person phone number.		5.0.0
secret	String	body (contained in the params structure)	Optional. The DingTalk secret key.		5.0.0

API Response

Sample Response

```
{
  "connected": true,
  "webhookResp": {}
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.0.0
connected	boolean	The webhook url connectivity id. (connectivity only)	5.0.0
webhookResp	LinkedHashMap	Webhook url sends a test message to the other end of the return. (https://open.dingtalk.com/document/robots/custom-robot-access#title-7ur-3ok-s1a)	5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current	5.0.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

SDK Sample

Java SDK

```
SNSDingTalkTestConnectionAction action = new SNSDingTalkTestConnectionAction();
action.url = "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81";
action.atAll = true;
action.atPersonPhoneNumbers = asList("13062689903","13062689901");
action.secret = "SECF8310c22767fe6f7cc5c00c6c4b1343605c445e9adaa28e39138749127a1c962";
action.testMsg = "hello world";
action.endpointUuid = "1c201c27a81740ddadbc5d2f3f38a5e4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SNSDingTalkTestConnectionAction.Result res = action.call();
```

Python SDK

```
SNSDingTalkTestConnectionAction action = SNSDingTalkTestConnectionAction()
action.url = "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81"
action.atAll = true
action.atPersonPhoneNumbers = [13062689903, 13062689901]
action.secret = "SECF8310c22767fe6f7cc5c00c6c4b1343605c445e9adaa28e39138749127a1c962"
action.testMsg = "hello world"
action.endpointUuid = "1c201c27a81740ddadbc5d2f3f38a5e4"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SNSDingTalkTestConnectionAction.Result res = action.call()
```

6.1.1.2.22 RemoveSNSDingTalkAtPerson

API Request

URLs

```
DELETE zstack/v1/sns/application-endpoints/ding-talk/{endpointUuid}/at-persons/{phoneNumber}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```



```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/sns/application-endpoints/
ding-talk/696e69a1023f323ca147be82ed7f13cd/at-persons/18988887777?
```

Request Parameters

Name	Type	Location	Description	Optional Version	Starting Version
deleteMode	String	body	Optional.		5.0.0
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
endpointUuid	String	url	The UUID of the DingTalk endpoint.		2.3
phoneNumber	String	url	The phone number of the user to be removed.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveSNSDingTalkAtPersonAction action = new RemoveSNSDingTalkAtP
ersonAction();
action.endpointUuid = "696e69a1023f323ca147be82ed7f13cd";
action.phoneNumber = "18988887777";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
RemoveSNSDingTalkAtPersonAction.Result res = action.call();
```

Python SDK

```
RemoveSNSDingTalkAtPersonAction action = RemoveSNSDingTalkAtP
ersonAction()
action.endpointUuid = "696e69a1023f323ca147be82ed7f13cd"
action.phoneNumber = "18988887777"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveSNSDingTalkAtPersonAction.Result res = action.call()
```

6.1.1.2.23 UpdateAtPersonOfAtDingTalkEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/ding-talk/at-persons/{uuid}/
actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAtPersonOfAtDingTalkEndpoint": {
    "endpointUuid": "d7be4980da0a308380b761afd3f36687",
    "phoneNumber": "13062689903",
    "remark": "jack"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAtPersonOfAtDingTalkEndpoint":
{"endpointUuid":"d7be4980da0a308380b761afd3f36687","phoneNumber":"13062689903","r
\
http://localhost:8080/zstack/v1/sns/application-endpoints/ding-talk/
at-persons/c42464333dce35db9fbc8816f22b1d31/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.0.0
endpointUuid	String	body (contained in the updateAtPersonOfAtDingTalkEndpoint structure)	The DingTalk endpoint uuid.		5.0.0
phoneNumber	String	body (contained in the updateAtPersonOfAtDingTalkEndpoint structure)	Optional. The phone number.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0
remark	String	body (contained in the updateAtPersonOfAtDingTalkEndpoint structure)	Optional. The remark.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "bb8f58cf82bd42a0902e192a920e02be",
    "phoneNumber": "18988887777",
    "endpointUuid": "e046be58ccbf4ab592bfb18aa0975418",
    "createDate": "Dec 25, 2023 2:07:18 PM",
    "lastOpDate": "Dec 25, 2023 2:07:18 PM",
    "remark": "jack"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSDingTalkAtPersonInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
phoneNumber	String	The phone number.	5.0.0
endpointUuid	String	The DingTalk endpoint uuid.	5.0.0

SDK Sample

Java SDK

```
UpdateAtPersonOfAtDingTalkEndpointAction action = new UpdateAtPe
rsonOfAtDingTalkEndpointAction();
action.uuid = "c42464333dce35db9fbc8816f22b1d31";
action.endpointUuid = "d7be4980da0a308380b761afd3f36687";
action.phoneNumber = "13062689903";
action.remark = "jack";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAtPersonOfAtDingTalkEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateAtPersonOfAtDingTalkEndpointAction action = UpdateAtPersonOfAtDi
ngTalkEndpointAction()
action.uuid = "c42464333dce35db9fbc8816f22b1d31"
action.endpointUuid = "d7be4980da0a308380b761afd3f36687"
action.phoneNumber = "13062689903"
action.remark = "jack"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAtPersonOfAtDingTalkEndpointAction.Result res = action.call()
```

6.1.1.2.24 UpdateSNSDingTalkEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/ding-talk/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSDingTalkEndpoint": {
    "url": "https://open.ding-talk.cn/open-apis/bot/v2/hook/006879a3-
0898-4428-aad4-3221db3daf81",
    "atAll": false,
    "secret": "fiSmveXkeD2jIjrENHYjQd",
    "name": "new name",
```

```

    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSDingTalkEndpoint":{"url":"https://open.ding-talk.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81","atAll":false,"secret":"fiSmveXked2jIjrENHYjQd","name":"new name","description":"desc"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/ding-talk/f2d2a456d49f3a9596440448eb4f26de/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained in the updateSNSDingTalkEndpoint structure)	Optional. The webhook url.		5.0.0
atAll	Boolean	body (contained in the updateSNSDingTalkEndpoint structure)	Optional. @All people.		5.0.0
secret	String	body (contained in the updateSNSDingTalkEnd	Optional. The secret key.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		point structure)			
uuid	String	url	The resource uuid.		5.0.0
name	String	body (contained in the updateSNSDingTalkEndPoint structure)	Optional. The resource name.		5.0.0
description	String	body (contained in the updateSNSDingTalkEndPoint structure)	Optional. The detailed description of resource.		5.0.0
systemTags	List	body	Optional. The system tag.		5.0.0
userTags	List	body	Optional. The user tag.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:07:46 PM",
    "lastOpDate": "Dec 25, 2023 2:07:46 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSApplicationEndpointInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	5.0.0
uuid	String	The resource UUID.	5.0.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	5.0.0
type	String	The type.	5.0.0
platformUuid	String	The application platform UUID.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
UpdateSNSDingTalkEndpointAction action = new UpdateSNSDingTalkEndpointAction();
action.url = "https://open.ding-talk.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81";
action.atAll = false;
action.secret = "fiSmveXkeD2jIjrENHYjQd";
action.uuid = "f2d2a456d49f3a9596440448eb4f26de";
action.name = "new name";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSDingTalkEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateSNSDingTalkEndpointAction action = UpdateSNSDingTalkEndpointAction()
action.url = "https://open.ding-talk.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81"
action.atAll = False
action.secret = "fiSmveXkeD2jIjrENHYjQd"
action.uuid = "f2d2a456d49f3a9596440448eb4f26de"
action.name = "new name"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateSNSDingTalkEndpointAction.Result res = action.call()
```

6.1.1.2.25 QuerySNSDingTalkAtPerson

API Request

URLs

```
GET zstack/v1/sns/application-endpoints/ding-talk/at-persons
```

```
GET zstack/v1/sns/application-endpoints/ding-talk/at-persons/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/
application-endpoints/ding-talk/at-persons?
q=uuid=bc09a0f65270322da363ad99552b234e&q=endpointUuid=a4e3535bc4663b15832d7cc091
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/ding-
talk/at-persons/38f8430ba7c9331d9d6d920072d7bf27
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySNSDingTalkAtPerson**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "234f8735703a38ecb840cfe9042bc945",
      "phoneNumber": "13062689903",
      "endpointUuid": "9488e18c34b933f5a06d1f45301c7f20"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventories	List	See inventories .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
phoneNumber	String	The phone number.	5.0.0

Name	Type	Description	Starting Version
endpointUuid	String	The DingTalk endpoint uuid	5.0.0

SDK Sample

Java SDK

```
QuerySNSDingTalkAtPersonAction action = new QuerySNSDingTalkAtPersonAction();
action.conditions = asList("uuid=3806b82167a33673b5067831090f317d", "endpointUuid=c36e1b34d3e73db7a53e067da95de3d5");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSDingTalkAtPersonAction.Result res = action.call();
```

Python SDK

```
QuerySNSDingTalkAtPersonAction action = QuerySNSDingTalkAtPersonAction()
action.conditions = ["uuid=b836d745aa623217838bc9d0ecb3bb1f", "endpointUuid=dc9f00eecd1837e484bde65bf53f45a1"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSDingTalkAtPersonAction.Result res = action.call()
```

6.1.1.2.26 QuerySNSDingTalkEndpoint

API Request

URLs

```
GET zstack/v1/sns/application-endpoints/ding-talk
GET zstack/v1/sns/application-endpoints/ding-talk/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/ding-talk?q=url=http://dingding-url
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/ding-talk/69658f91a1f130e0986fbfb19de1b3c9
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSDingTalkEndpoint`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QuerySNSDingTalkEndpointAction action = new QuerySNSDingTalkEndpointAction();
action.conditions = asList("url=http://dingding-url");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSDingTalkEndpointAction.Result res = action.call();
```

Python SDK

```
QuerySNSDingTalkEndpointAction action = QuerySNSDingTalkEndpointAction()
action.conditions = ["url=http://dingding-url"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSDingTalkEndpointAction.Result res = action.call()
```

6.1.1.2.27 AddSNSFeiShuAtPerson

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/feishu/at-persons
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "userId": "18099997777",
    "endpointUuid": "9214e9f129783370bea45388a1734073",
    "remark": "jack"
  }
}
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"userId": "18099997777", "endpointUuid": "9214e9f129783370bea45388a1734073", "remark":
"http://localhost:8080/zstack/v1/sns/application-endpoints/feishu/at-
persons

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
userId	String	body (contained in the params structure)	The FeiShu user ID.		5.0.0
endpointUuid	String	body (contained in the params structure)	The UUID of the FeiShu endpoint.		5.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource uuid.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0
tagUuid	List	body (contained in the params structure)	Optional. The tag uuid list.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
remark	String	body (contained in the params structure)	Optional. The remark.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "de3e104204da4c31a9600685c2b8a106",
    "userId": "18988887777",
    "endpointUuid": "58361e5ce6704eb6999830034397a8aa",
    "createDate": "Dec 25, 2023 2:09:10 PM",
    "lastOpDate": "Dec 25, 2023 2:09:10 PM",
    "remark": "jack"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSFeiShuAtPersonInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0

Name	Type	Description	Starting Version
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
userId	String	The ID of the FeiShu user.	5.0.0
endpointUuid	String	The UUID of the FeiShu endpoint.	5.0.0

SDK Sample

Java SDK

```
AddSNSFeiShuAtPersonAction action = new AddSNSFeiShuAtPersonAction();
action.userId = "18099997777";
action.endpointUuid = "9214e9f129783370bea45388a1734073";
action.remark = "jack";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddSNSFeiShuAtPersonAction.Result res = action.call();
```

Python SDK

```
AddSNSFeiShuAtPersonAction action = AddSNSFeiShuAtPersonAction()
action.userId = "18099997777"
action.endpointUuid = "9214e9f129783370bea45388a1734073"
action.remark = "jack"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
AddSNSFeiShuAtPersonAction.Result res = action.call()
```

6.1.1.2.28 CreateSNSFeiShuEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/feishu
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key\u003df8b9014a-207a-44d5-ae26-3501bf01dbc4",
    "atAll": false,
    "atPersonUserIds": [
      "18900002222",
      "13377778888"
    ],
    "secret": "DPKfmrIhYXY5M2TWGXy0ed",
    "atPersonList": {
      "13377778888": "jack"
    },
    "name": "feishu"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key=f8b9014a-207a-44d5-ae26-3501bf01dbc4","atAll":false,"atPersonUserIds":["18900002222","13377778888"],"secret":"DPKfmrIhYXY5M2TWGXy0ed","atPersonList":{"13377778888":"jack"},"name":"feishu"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/feishu
```

Request Parameters

Name	Type	Location	Description	Options Value	Starting Version
url	String	body (contained in the params structure)	The webhook URL of the FeiShu robot.		5.0.0
atAll	Boolean	body (contained in the params structure)	Optional. Whether to notify all (@All) members in a FeiShu group.		5.0.0
atPersonUsersId	List	body (contained in the params structure)	Optional. The user id of the group member to be notified (the @member).		5.0.0
name	String	body (contained in the params structure)	The resource name.		5.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		5.0.0
platformUuid	String	body (contained in the params structure)	The notification platform uuid.		5.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource uuid.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

Name	Type	Location	Description	Options Value	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The tag uuid list.		5.0.0
secret	String	body (contained in the params structure)	Optional. The FeiShu secret key.		5.0.0
atPersonList	Map	body (contained in the params structure)	Optional. The @person information. (Recommend)		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "url": "http://feishu-url",
    "atAll": false,
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:06:05 PM",
    "lastOpDate": "Dec 25, 2023 2:06:05 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSFeiShuEndpointInventory	See inventory	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
url	String	The URL of the DingTalk robot.	5.0.0
atAll	boolean	Whether to notify all (@All) members in a DingTalk group.	5.0.0
secret	String	The DingTalk secret key.	5.0.0
atPersonUserIds	List	The user id of the group member to be notified (the @member).	5.0.0
name	String	The resource name.	5.0.0
uuid	String	The resource UUID.	5.0.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	5.0.0
type	String	The endpoint type.	5.0.0
state	String	The application platform.	5.0.0
platformUuid	String	The application platform UUID.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0
platform	SNSApplicationPlatformInventory	See platform .	5.0.0

platform

Name	Type	Description	Starting Version
uuid	String	The resource uuid.	5.0.0
name	String	The resource name.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The resource type.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```

CreateSNSFeiShuEndpoint action = new CreateSNSFeiShuEndpoint();
action.url = "https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key\u003df8b9014a-207a-44d5-ae26-3501bf01dbc4";
action.atAll = false;
action.atPersonUserIds = asList("18900002222", "13377778888");
action.name = "feishu";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
CreateSNSFeiShuEndpoint.Result res = action.call();
```

Python SDK

```
CreateSNSFeiShuEndpoint action = new CreateSNSFeiShuEndpoint()
action.url = "https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key\u003df8b9014a-207a-44d5-ae26-3501bf01dbc4"
action.atAll = false
action.atPersonUserIds = asList("18900002222", "13377778888")
action.name = "feishu"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSNSFeiShuEndpoint.Result res = action.call()
```

6.1.1.2.29 SNSFeiShuTestConnection

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/feishu/test-connection
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81",
    "atAll": true,
    "atPersonUserIds": [
      "13062689903",
      "13062689901"
    ],
    "secret": "fiSmveXkeD2jIjrENHYjQd",
    "testMsg": "hello world",
    "endpointUuid": "1c201c27a81740ddadbc5d2f3f38a5e4"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":{"url":"https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81","atAll":true,"atPersonUserIds":["13062689903","13062689901"],"secret":"fiSmveXkeD2jIjrENHYjQd","testMsg":"hello world","endpointUuid":"1c201c27a81740ddadbc5d2f3f38a5e4"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/feishu/test-connection
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
testMsg	String	body (contained in the params structure)	Testing message text.		5.0.0
endpointUuid	String	body (contained in the params structure)	Optional. The FeiShu endpoint uuid.		5.0.0
systemTags	List	body	Optional. The system tag.		5.0.0
userTags	List	body	Optional. The user tag.		5.0.0
url	String	body (contained in the params structure)	Optional. The webhook url.		5.0.0
atAll	Boolean	body (contained in the params structure)	Optional. Whether @all or not.		5.0.0
atPersonUserIds	List	body (contained in the params structure)	Optional. @ person user ID.		5.0.0
secret	String	body (contained in the params structure)	Optional. The FeiShu secret key.		5.0.0

API Response

Sample Response

```
{
  "connected": true,
  "webhookResp": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
connected	boolean	The webhook url connectivity id. (connectivity only)	5.0.0
webhookResp	LinkedHashMap	Webhook url sends a test message to the other end of the return. (https://open.feishu.cn/document/client-docs/bot-v3/add-custom-bot#e2f7069c)	5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

SDK Sample

Java SDK

```
SNSFeiShuTestConnectionAction action = new SNSFeiShuTestConnectionAction();
action.url = "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81";
action.atAll = true;
action.atPersonUserIds = asList("13062689903", "13062689901");
action.secret = "fiSmveXkeD2jIjrENHYjQd";
action.testMsg = "hello world";
action.endpointUuid = "1c201c27a81740ddadbc5d2f3f38a5e4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SNSFeiShuTestConnectionAction.Result res = action.call();
```

Python SDK

```
SNSFeiShuTestConnectionAction action = SNSFeiShuTestConnectionAction()
action.url = "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81"
action.atAll = true
action.atPersonUserIds = [13062689903, 13062689901]
action.secret = "fiSmveXkeD2jIjrENHYjQd"
action.testMsg = "hello world"
action.endpointUuid = "1c201c27a81740ddadbc5d2f3f38a5e4"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SNSFeiShuTestConnectionAction.Result res = action.call()
```

6.1.1.2.30 RemoveSNSFeiShuAtPerson

API Request

URLs

```
DELETE zstack/v1/sns/application-endpoints/feishu/{endpointUuid}/at-
persons/{userId}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/sns/application-endpoints/
feishu/43241429944f37a1b1c9470d8c2f3e1c/at-persons/18988887777?
```

Request Parameters

Name	Type	Location	Description	Optional Version	Starting Version
endpointUuid	String	url	The FeiShu Endpoint uuid.		5.0.0
userId	String	url	The FeiShu user Id.		5.0.0
deleteMode	String	body	Optional. Delete mode(Permissive / Enforcing, Permissive)		5.0.0
systemTags	List	body	Optional. The system tag.		5.0.0
userTags	List	body	Optional. The user tag.		5.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveSNSFeiShuAtPersonAction action = new RemoveSNSFeiShuAtPer
sonAction();
action.endpointUuid = "43241429944f37a1b1c9470d8c2f3e1c";
action.userId = "18988887777";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveSNSFeiShuAtPersonAction.Result res = action.call();
```

Python SDK

```
RemoveSNSFeiShuAtPersonAction action = RemoveSNSFeiShuAtPersonAction()
action.endpointUuid = "43241429944f37a1b1c9470d8c2f3e1c"
action.userId = "18988887777"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveSNSFeiShuAtPersonAction.Result res = action.call()
```

6.1.1.2.31 UpdateAtPersonOfAtFeiShuEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/feishu/at-persons/{uuid}/
actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAtPersonOfAtFeiShuEndpoint": {
    "endpointUuid": "60274b11ffdc3ea080be205b964848d2",
    "userId": "zhang.san",
    "remark": "jack"
  }
}
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAtPersonOfAtFeiShuEndpoint":
{"endpointUuid":"60274b11ffdc3ea080be205b964848d2", "userId":"zhang.san", "remark":
\
http://localhost:8080/zstack/v1/sns/application-endpoints/feishu/at-
persons/399ba943200638c2a63b65f002b6e180/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.0.0
endpointUuid	String	body (contained in the updateAtPersonOfAtFeiShuEndpoint structure)	The FeiShu endpoint uuid.		5.0.0
userId	String	body (contained in the updateAtPersonOfAtFeiShuEndpoint structure)	Optional. The FeiShu user id.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
remark	String	body (contained in the updateAtPersonOfAtFeiShuEndpoint structure)	Optional. The remark.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "cd642af04dc14443a61693c5ed9f055f",
    "userId": "18988887777",
    "endpointUuid": "edb3de87e9014eb9b1903739f3e8ec05",
    "createDate": "Dec 25, 2023 2:06:56 PM",
    "lastOpDate": "Dec 25, 2023 2:06:56 PM",
    "remark": "jack"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSFeiShuAtPersonInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
userId	String	The FeiShu user id.	5.0.0
endpointUuid	String	The FeiShu endpoint uuid.	5.0.0

SDK Sample

Java SDK

```
UpdateAtPersonOfAtFeiShuEndpointAction action = new UpdateAtPersonOfAtFeiShuEndpointAction();
action.uuid = "399ba943200638c2a63b65f002b6e180";
action.endpointUuid = "60274b11ffdc3ea080be205b964848d2";
action.userId = "zhang.san";
action.remark = "jack";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAtPersonOfAtFeiShuEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateAtPersonOfAtFeiShuEndpointAction action = UpdateAtPersonOfAtFeiShuEndpointAction()
action.uuid = "399ba943200638c2a63b65f002b6e180"
action.endpointUuid = "60274b11ffdc3ea080be205b964848d2"
action.userId = "zhang.san"
action.remark = "jack"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAtPersonOfAtFeiShuEndpointAction.Result res = action.call()
```

6.1.1.2.32 UpdateSNSFeiShuEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/feishu/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSFeiShuEndpoint": {
    "url": "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81",
    "atAll": false,
    "secret": "fiSmveXkeD2jIjrENHYjQd",
    "name": "new name",
    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSFeiShuEndpoint":{"url":"https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81","atAll":false,"secret":"fiSmveXkeD2jIjrENHYjQd","name":"new name","description":"desc"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/feishu/74a9c83578883992b21555b2f46ce38d/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained in the updateSNSF eiShuEndpo int structure)	Optional. The webhook url.		5.0.0
atAll	Boolean	body (contained in the updateSNSF eiShuEndpo int structure)	Optional. @All people.		5.0.0
secret	String	body (contained in the updateSNSF eiShuEndpo int structure)	Optional. The secret key.		5.0.0
uuid	String	url	The resource uuid.		5.0.0
name	String	body (contained in the updateSNSF eiShuEndpo int structure)	Optional. The resource name.		5.0.0
description	String	body (contained in the updateSNSF eiShuEndpo int structure)	Optional. The detailed description of resource.		5.0.0
systemTags	List	body	Optional. The system tag.		5.0.0
userTags	List	body	Optional. The user tag.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:04:58 PM",
    "lastOpDate": "Dec 25, 2023 2:04:58 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSApplicationEndpointInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	5.0.0
uuid	String	The resource UUID.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The type.	5.0.0
platformUuid	String	The application platform UUID.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
UpdateSNSFeiShuEndpointAction action = new UpdateSNSFeiShuEndpo
intAction();
action.url = "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-
0898-4428-aad4-3221db3daf81";
action.atAll = false;
action.secret = "fiSmveXkeD2jIjrENHYjQd";
action.uuid = "74a9c83578883992b21555b2f46ce38d";
action.name = "new name";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSFeiShuEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateSNSFeiShuEndpointAction action = UpdateSNSFeiShuEndpointAction()
action.url = "https://open.feishu.cn/open-apis/bot/v2/hook/006879a3-
0898-4428-aad4-3221db3daf81"
action.atAll = false
action.secret = "fiSmveXkeD2jIjrENHYjQd"
action.uuid = "74a9c83578883992b21555b2f46ce38d"
```

```

action.name = "new name"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSNSFeiShuEndpointAction.Result res = action.call()

```

6.1.1.2.33 QuerySNSFeiShuAtPerson

API Request

URLs

```
GET zstack/v1/sns/application-endpoints/feishu/at-persons
```

```
GET zstack/v1/sns/application-endpoints/feishu/at-persons/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/feishu/at-persons?q=uuid=0fce8f7cc0fb3c54b4f2ce7c53a1547a&q=endpointUuid=2ba8eb33d960377087c0f461de

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/feishu/at-persons/66e1178e2a6d3941b472c2532abe0450

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySNSFeiShuAtPerson**, and pressing the **Tab** key.

API Response

Sample Response

```

{
  "inventories": [
    {
      "uuid": "zhang.san",
      "endpointUuid": "bcb849d464dd3a0aba49fba91209b4e2"
    }
  ]
}

```

Name	Type	Description	Starting Version
success	boolean		5.0.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventories	List	See inventories .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
userId	String	The FeiShu user id.	5.0.0

Name	Type	Description	Starting Version
endpointUuid	String	The DingTalk endpoint uuid	5.0.0

SDK Sample

Java SDK

```
QuerySNSFeiShuAtPersonAction action = new QuerySNSFeiShuAtPersonAction();
action.conditions = asList("uuid=3c1da61415ec3311a18e7ff94f488fc9", "endpointUuid=5ceba2786e113cf5ae1af0f95ff3623c");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSFeiShuAtPersonAction.Result res = action.call();
```

Python SDK

```
QuerySNSFeiShuAtPersonAction action = QuerySNSFeiShuAtPersonAction()
action.conditions = ["uuid=c309bdc1cb213847aa4be3d57b4b2d55", "endpointUuid=8b95394f0d55320085f44175ee0d116f"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSFeiShuAtPersonAction.Result res = action.call()
```

6.1.1.2.34 CreateSNSHttpEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/http
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "http://127.0.0.1:6666/test-url",
    "username": "username",
    "password": "password",
    "name": "http"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"http://127.0.0.1:6666/test-url","username":"username","password":"password","name":"http"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/http
```

Request Parameters

Name	Type	Location	Description	Options Value	Starting Version
url	String	body (contained in the params structure)	The webhook URL of the FeiShu robot.		5.0.0
username	String	body (contained in the params structure)	Optional. The user name.		5.0.0
password	String	body (contained in the params structure)	Optional. The password.		5.0.0
name	String	body (contained in the params structure)	The resource name.		5.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		5.0.0
platformUuid	String	body (contained in the params structure)	The notificatiin platform uuid.		5.0.0
resourceUuid	String	body (contained in	Optional. The resource uuid.		5.0.0

Name	Type	Location	Description	Options Value	Starting Version
		the params structure)			
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0
tagUuids	List	body (contained in the params structure)	Optional. The tag uuid list.		5.0.0

API Response

Sample Response

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
CreateSNSHttpEndpointAction action = new CreateSNSHttpEndpointAction();
action.url = "http://127.0.0.1:6666/test-url";
action.username = "username";
action.password = "password";
action.name = "http";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSHttpEndpointAction.Result res = action.call();
```

Python SDK

```
CreateSNSHttpEndpointAction action = CreateSNSHttpEndpointAction()
action.url = "http://127.0.0.1:6666/test-url"
action.username = "username"
action.password = "password"
action.name = "http"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateSNSHttpEndpointAction.Result res = action.call()
```

6.1.1.2.35 UpdateSNSHttpEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/http/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSHttpEndpoint": {
    "url": "https://open.http.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81",
    "username": "admin",
    "password": "password",
    "name": "new name",
    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSHttpEndpoint":{"url":"https://open.http.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81","username":"admin","password":"password","name":"new name","description":"desc"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/http/c051c930bd95394c9cd6b3775f8cb475/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained)	Optional. The webhook url.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		in the updateSNSH ttpEndpoint structure)			
username	Boolean	body (contained in the updateSNSH ttpEndpoint structure)	Optional. The username.		5.0.0
password	String	body (contained in the updateSNSH ttpEndpoint structure)	Optional. The password.		5.0.0
uuid	String	url	The resource uuid.		5.0.0
name	String	body (contained in the updateSNSH ttpEndpoint structure)	Optional. The resource name.		5.0.0
description	String	body (contained in the updateSNSH ttpEndpoint structure)	Optional. The detailed description of resource.		5.0.0
systemTags	List	body	Optional. The system tag.		5.0.0
userTags	List	body	Optional. The user tag.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:08:22 PM",
    "lastOpDate": "Dec 25, 2023 2:08:22 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSApplicationEndpointInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	5.0.0
uuid	String	The resource UUID.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The type.	5.0.0
platformUuid	String	The application platform UUID.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
UpdateSNSHttpEndpointAction action = new UpdateSNSHttpEndpointAction
();
action.url = "https://open.http.cn/open-apis/bot/v2/hook/006879a3-0898
-4428-aad4-3221db3daf81";
action.username = "admin";
action.password = "password";
action.uuid = "c051c930bd95394c9cd6b3775f8cb475";
action.name = "new name";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSHttpEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateSNSHttpEndpointAction action = UpdateSNSHttpEndpointAction()
action.url = "https://open.http.cn/open-apis/bot/v2/hook/006879a3-0898
-4428-aad4-3221db3daf81"
action.username = "admin"
action.password = "password"
action.uuid = "c051c930bd95394c9cd6b3775f8cb475"
```

```

action.name = "new name"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSNSHttpEndpointAction.Result res = action.call()

```

6.1.1.2.36 QuerySNSHttpEndpoint

API Request

URLs

```

GET zstack/v1/sns/application-endpoints/http
GET zstack/v1/sns/application-endpoints/http/{uuid}

```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/http?
q=url=http://url

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/http/
cbd9163bb4683e10b8a5025621e36862

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSHttpEndpoint`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```
QuerySNSHttpEndpointAction action = new QuerySNSHttpEndpointAction();
```

```
action.conditions = asList("url=http://url");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSHttpEndpointAction.Result res = action.call();
```

Python SDK

```
QuerySNSHttpEndpointAction action = QuerySNSHttpEndpointAction()
action.conditions = ["url=http://url"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSHttpEndpointAction.Result res = action.call()
```

6.1.1.2.37 DeleteSNSApplicationEndpoint

API Request

URLs

```
DELETE zstack/v1/sns/application-endpoints/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/sns/application-endpoints/
f068da2f92f7354cbc9054a6c14989ea
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
deleteMode	String	body	Optional.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteSNSApplicationEndpointAction action = new DeleteSNSApplication
EndpointAction();
action.uuid = "f068da2f92f7354cbc9054a6c14989ea";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteSNSApplicationEndpointAction.Result res = action.call();
```

Python SDK

```
DeleteSNSApplicationEndpointAction action = DeleteSNSApplication
EndpointAction()
action.uuid = "f068da2f92f7354cbc9054a6c14989ea"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteSNSApplicationEndpointAction.Result res = action.call()
```

6.1.1.2.38 UpdateSNSApplicationEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSApplicationEndpoint": {
    "name": "new name"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSApplicationEndpoint":{"name":"new name"}}' \
http://localhost:8080/zstack/v1/sns/application-
endpoints/7d6155384f4e3cdaa6e877ecec59318c/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
name	String	body (contained in the updateSNSApplicationEndpoint structure)	Optional. The resource name.		2.3
description	String	body (contained in the updateSNSApplicationEndpoint structure)	Optional. The detailed description of the resource.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:06:16 PM",
    "lastOpDate": "Dec 25, 2023 2:06:16 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	SNSApplicationEndpointInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
uuid	String	The resource UUID.	2.3
description	String	The detailed description of the resource.	2.3
type	String	The type.	2.3
platformUuid	String	The application platform UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3

SDK Sample

Java SDK

```
UpdateSNSApplicationEndpointAction action = new UpdateSNSApplicationEndpointAction();
action.uuid = "7d6155384f4e3cdaa6e877ecec59318c";
action.name = "new name";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSApplicationEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateSNSApplicationEndpointAction action = UpdateSNSApplicationEndpointAction()
action.uuid = "7d6155384f4e3cdaa6e877ecec59318c"
action.name = "new name"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateSNSApplicationEndpointAction.Result res = action.call()
```

6.1.1.2.39 QuerySNSApplicationEndpoint

API Request

URLs

```
GET zstack/v1/sns/application-endpoints
GET zstack/v1/sns/application-endpoints/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints?
q=name=http
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/
b8a4be12db8237a1a42f897402afd4e8
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySNSApplicationEndpoint**, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QuerySNSApplicationEndpointAction action = new QuerySNSApplicationE
ndpointAction();
action.conditions = asList("name=http");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QuerySNSApplicationEndpointAction.Result res = action.call();
```

Python SDK

```
QuerySNSApplicationEndpointAction action = QuerySNSApplicationE
ndpointAction()
action.conditions = ["name=http"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSApplicationEndpointAction.Result res = action.call()
```

6.1.1.2.40 ChangeSNSApplicationEndpointState

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeSNSApplicationEndpointState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeSNSApplicationEndpointState":
{"stateEvent":"disable"}}' \
http://localhost:8080/zstack/v1/sns/application-
endpoints/1485ef44ea5234ee83d80d3a15937e19/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
stateEvent	String	body (contained in the	The state event.	- enable - disable	2.3

Name	Type	Location	Description	Optional Value	Starting Version
		changeSNSApplicationEndpointState structure)			
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:06:05 PM",
    "lastOpDate": "Dec 25, 2023 2:06:05 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SNSApplicationEndpointInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
type	String	The type.	2.3
platformUuid	String	The application platform UUID.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
createDate	Timestamp	The creation date.	2.3

SDK Sample

Java SDK

```
ChangeSNSApplicationEndpointStateAction action = new ChangeSNSApplicationEndpointStateAction();
```

```
action.uuid = "1485ef44ea5234ee83d80d3a15937e19";
action.stateEvent = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeSNSApplicationEndpointStateAction.Result res = action.call();
```

Python SDK

```
ChangeSNSApplicationEndpointStateAction action = ChangeSNSApplication
EndpointStateAction()
action.uuid = "1485ef44ea5234ee83d80d3a15937e19"
action.stateEvent = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeSNSApplicationEndpointStateAction.Result res = action.call()
```

6.1.1.2.41 CreateSNSAliyunSmsEndpoint

API Request

URLs

```
POST zstack/v1/sns/sms-endpoints/aliyunsms
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "accessKeyUuid": "4eb00e2bf95bp5s505e6eccd647d9k35",
    "receivers": [
      "1355555555",
      "1866666666"
    ],
    "name": "AliyunSms",
    "description": "This is an Aliyun SMS Endpoint"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"accessKeyUuid":"4eb00e2bf95bp5s505e6eccd647d9k35","receivers":
["1355555555","1866666666"],"name":"AliyunSms","description":"This
```

```
is an Aliyun SMS Endpoint"}}' http://localhost:8080/zstack/v1/sns/
sms-endpoints/aliyunsms
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
accessKeyU uid	String	body (contained in the params structure)	The UUID of the Aliyun access key.		3.7.0
receivers	List	body (contained in the params structure)	Optional. The SMS message receivers.		3.7.0
name	String	body (contained in the params structure)	The endpoint name.		3.7.0
description	String	body (contained in the params structure)	Optional. The detailed description of the endpoint.		3.7.0
platformUuid	String	body (contained in the params structure)	Optional.		3.7.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.7.0
tagUuids	List	body (contained in the params structure)	The tag UUID list.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "041723a4d9d14e8686dbec7d1369c05e",
    "description": "example SNSSmsEndpoint Description",
    "type": "AliyunSms",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:04:52 PM",
    "lastOpDate": "Dec 25, 2023 2:04:52 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	SNSSmsEndpointInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
receivers	List	The SMS message receivers.	3.7.0
name	String	The name of the SMS message endpoint.	3.7.0
uuid	String	The UUID of the SMS message endpoint.	3.7.0
description	String	The detailed description of the SMS message endpoint.	3.7.0
type	String	The type of the SMS message endpoint.	3.7.0
state	String	The state of the SMS message endpoint.	3.7.0
platformUuid	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

SDK Sample

Java SDK

```
CreateSNSAliyunSmsEndpointAction action = new CreateSNSAliyunSmsEndpointAction();
action.accessKeyUuid = "4eb00e2bf95bp5s505e6eccd647d9k35";
action.receivers = asList("13555555555", "18666666666");
action.name = "AliyunSms";
action.description = "This is an Aliyun SMS Endpoint";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreateSNSAliyunSmsEndpointAction.Result res = action.call();
```

Python SDK

```
CreateSNSAliyunSmsEndpointAction action = CreateSNSAliyunSmsEn
dpointAction()
action.accessKeyUuid = "4eb00e2bf95bp5s505e6eccd647d9k35"
action.receivers = [13555555555, 18666666666]
action.name = "AliyunSms"
action.description = "This is an Aliyun SMS Endpoint"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSNSAliyunSmsEndpointAction.Result res = action.call()
```

6.1.1.2.42 ValidateSNSAliyunSmsEndpoint

API Request

URLs

```
PUT zstack/v1/sns/sms-endpoints/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "validateSNSAliyunSmsEndpoint": {
    "phoneNumbers": [
      "134567898765",
      "18654321234"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"validateSNSAliyunSmsEndpoint":{"phoneNumbers":
["134567898765","18654321234"]}}' http://localhost:8080/zstack/v1/sns/
sms-endpoints/56304854f10730adac30a81c1e8e8de4/actions
```

Request Parameters

Name	Type	Location	Description	Options Value	Starting Version
uuid	String	url	The endpoint UUID.		3.7.0
phoneNumbers	List	body (contained in the validateSNSAliyunSmsEndpoint structure)	The phone numbers to receive SMS verification messages.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ValidateSNSAliyunSmsEndpointAction action = new ValidateSNSAliyunSmsEndpointAction();
action.uuid = "56304854f10730adac30a81c1e8e8de4";
action.phoneNumbers = asList("134567898765", "18654321234");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ValidateSNSAliyunSmsEndpointAction.Result res = action.call();
```

Python SDK

```
ValidateSNSAliyunSmsEndpointAction action = ValidateSNSAliyunSmsEndpointAction()
action.uuid = "56304854f10730adac30a81c1e8e8de4"
action.phoneNumbers = [134567898765, 18654321234]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ValidateSNSAliyunSmsEndpointAction.Result res = action.call()
```

6.1.1.2.43 CreateSNSUniversalSmsEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/universal-sms
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "smsAccessKeyId": "smsAccessKeyId",
    "smsAccessKeySecret": "smsAccessKeySecret",
    "supplier": "Emay",
    "name": "Universal Sms"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"smsAccessKeyId":"smsAccessKeyId","smsAccessKeySecret":"smsAccessKeySecret","sup
Sms"}}' http://localhost:8080/zstack/v1/sns/application-endpoints/
universal-sms
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
smsAccessKeyld	String	body (contained in the params structure)			5.1.8

Name	Type	Location	Description	Valid Values	Starting Version
smsAccessKeySecret	String	body (contained in the params structure)			5.1.8
supplier	String	body (contained in the params structure)			5.1.8
additionParam	Map	body (contained in the params structure)	Optional.		5.1.8
name	String	body (contained in the params structure)	The resource name.		5.1.8
description	String	body (contained in the params structure)	Optional. The resource description.		5.1.8
platformUuid	String	body (contained in the params structure)	Optional		5.1.8
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		5.1.8
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		5.1.8
systemTags	List	body	Optional. The system tag.		5.1.8
userTags	List	body	Optional. The user tag.		5.1.8

API Response

Sample Response

```
{
  "inventory": {
    "smsAccessKeyId": "smsAccessKeyId",
    "smsAccessKeySecret": "smsAccessKeySecret",
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "UniversalSms",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Jun 13, 2024 5:28:34 PM",
    "lastOpDate": "Jun 13, 2024 5:28:34 PM",
    "connectionStatus": "UP"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.1.8
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.8
inventory	SNSUniversalSmsEndpointInventory	See inventory .	5.1.8

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.8
description	String	The brief description of the error.	5.1.8
details	String	The details about the error.	5.1.8

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	5.1.8
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.8
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.8

#inventory

Name	Type	Description	Starting Version
smsAccessKeyId	String	The access key ID.	5.1.8
smsAccessKeySecret	String	The access key secret.	5.1.8
supplier	String	The SMS service supplier.	5.1.8
name	String	The resource name.	5.1.8
uuid	String	The resource UUID.	5.1.8
description	String	The resource description.	5.1.8
state	String		5.1.8
platformUuid	String		5.1.8
createDate	Timestamp	The creation date.	5.1.8
lastOpDate	Timestamp	The last operation date.	5.1.8
platform	SNSApplicationPlatformInventory	See #platform .	5.1.8

#platform

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.1.8

Name	Type	Description	Starting Version
name	String	The resource name.	5.1.8
description	String	The resource description.	5.1.8
type	String	The type.	5.1.8
createDate	Timestamp	The creation date.	5.1.8
lastOpDate	Timestamp	The last operation date.	5.1.8

SDK Sample

Java SDK

```
CreateSNSUniversalSmsEndpointAction action = new CreateSNSUniversalSmsEndpointAction();
action.smsAccessKeyId = "smsAccessKeyId";
action.smsAccessKeySecret = "smsAccessKeySecret";
action.supplier = "Emay";
action.name = "Universal Sms";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSUniversalSmsEndpointAction.Result res = action.call();
```

Python SDK

```
CreateSNSUniversalSmsEndpointAction action = CreateSNSUniversalSmsEndpointAction()
action.smsAccessKeyId = "smsAccessKeyId"
action.smsAccessKeySecret = "smsAccessKeySecret"
action.supplier = "Emay"
action.name = "Universal Sms"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSNSUniversalSmsEndpointAction.Result res = action.call()
```

6.1.1.2.44 UpdateSNSUniversalSmsEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/universal-sms/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSUniversalSmsEndpoint": {
```



```

    "smsAccessKeyId": "smsAccessKeyId",
    "smsAccessKeySecret": "smsAccessKeySecret",
    "name": "new name",
    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSUniversalSmsEndpoint":
{"smsAccessKeyId":"smsAccessKeyId","smsAccessKeySecret":"smsAccessKeySecret","name":
"name","description":"desc"}}' http://localhost:8080/zstack/v1/sns/
application-endpoints/universal-sms/6460cd6f98923299a5b91ccc4a43c159/
actions

```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
smsAccessKeyId	String	body (contained in the updateSNSUniversalSmsEndpoint structure)	The access key ID.		5.1.8
smsAccessKeySecret	String	body (contained in the updateSNSUniversalSmsEndpoint structure)	The access key secret.		5.1.8
uuid	String	url	The resource UUID.		5.1.8

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the updateSNSUniversalSmEndpoint structure)	Optional. The resource name.		5.1.8
description	String	body (contained in the updateSNSUniversalSmEndpoint structure)	Optional. The resource description.		5.1.8
systemTags	List	body	Optional. The system tags.		5.1.8
userTags	List	body	Optional. The user tags.		5.1.8
platformUuid	String	body (contained in the updateSNSUniversalSmEndpoint structure)	Optional. The platform UUID.		5.1.8

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Jun 13, 2024 5:26:46 PM",
    "lastOpDate": "Jun 13, 2024 5:26:46 PM",
    "connectionStatus": "UP"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.1.8
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.8
inventory	SNSUniversalSmsEndpointInventory	See inventory .	5.1.8

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.8
description	String	The brief description of the error.	5.1.8
details	String	The details about the error.	5.1.8
elaboration	String	The reserved field. Default value: null.	5.1.8
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.8
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.8

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	5.1.8
uuid	String	The resource UUID.	5.1.8
description	String	The resource description.	5.1.8
type	String	The type.	5.1.8
platformUuid	String	The platform UUID.	5.1.8
createDate	Timestamp	The creation date.	5.1.8
lastOpDate	Timestamp	The last operation date.	5.1.8
connectionStatus	String	The connection status (UP,DOWN).	5.1.8

SDK Sample

Java SDK

```
UpdateSNSUniversalSmsEndpointAction action = new UpdateSNSUniversalSmsEndpointAction();
action.smsAccessKeyId = "smsAccessKeyId";
action.smsAccessKeySecret = "smsAccessKeySecret";
action.uuid = "6460cd6f98923299a5b91ccc4a43c159";
action.name = "new name";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSUniversalSmsEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateSNSUniversalSmsEndpointAction action = UpdateSNSUniversalSmsEndpointAction()
action.smsAccessKeyId = "smsAccessKeyId"
action.smsAccessKeySecret = "smsAccessKeySecret"
action.uuid = "6460cd6f98923299a5b91ccc4a43c159"
action.name = "new name"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateSNSUniversalSmsEndpointAction.Result res = action.call()
```

6.1.1.2.45 ValidateSNSUniversalSmsEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/universal-sms/{uuid}/validate
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "validateSNSUniversalSmsEndpoint": {
    "testMsg": "test sms",
    "phoneNumbers": [
      "134567898765",
      "18654321234"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"validateSNSUniversalSmsEndpoint":{"testMsg":"test
sms","phoneNumbers":["134567898765","18654321234"]}}' http://
localhost:8080/zstack/v1/sns/application-endpoints/universal-sms/
b762d45d18943f16abac61b600874b09/validate
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
testMsg	String	body (contained in the validateSN			5.1.8

Name	Type	Location	Description	Valid Values	Starting Version
		SUniversalSmsEndpoint structure).			
uuid	String	url	The resource UUID.		5.1.8
phoneNumbers	List	body (contained in the validateSN SUniversalSmsEndpoint structure).			5.1.8
systemTags	List	body	Optional. The system tags.		5.1.8
userTags	List	body	Optional. The user tags.		5.1.8

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ValidateSNSUniversalSmsEndpointAction action = new ValidateSNSUniversalSmsEndpointAction();
action.testMsg = "test sms";
action.uuid = "b762d45d18943f16abac61b600874b09";
action.phoneNumbers = asList("134567898765", "18654321234");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ValidateSNSUniversalSmsEndpointAction.Result res = action.call();
```

Python SDK

```
ValidateSNSUniversalSmsEndpointAction action = ValidateSNSUniversalSmsEndpointAction()
action.testMsg = "test sms"
action.uuid = "b762d45d18943f16abac61b600874b09"
action.phoneNumbers = [134567898765, 18654321234]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ValidateSNSUniversalSmsEndpointAction.Result res = action.call()
```

6.1.1.2.46 QuerySNSUniversalSmsEndpoint

API Request

URLs

```
GET zstack/v1/sns/application-endpoints/universal-sms
```

```
GET zstack/v1/sns/application-endpoints/universal-sms/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/universal-sms?q=url=http://universal-sms-url
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/universal-sms/004b6a5c2ad13e3eaf53db006d47eaf2
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSUniversalSmsEndpoint`, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
  }
}
```

```

    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```

QuerySNSUniversalSmsEndpointAction action = new QuerySNSUniversalSms
EndpointAction();
action.conditions = asList("url=http://universal-sms-url");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSUniversalSmsEndpointAction.Result res = action.call();

```

Python SDK

```

QuerySNSUniversalSmsEndpointAction action = QuerySNSUniversalSms
EndpointAction()
action.conditions = ["url=http://universal-sms-url"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSUniversalSmsEndpointAction.Result res = action.call()

```

6.1.1.2.47 AddSNSSmsReceiver

API Request

URLs

```
POST zstack/v1/sns/sms-endpoints/receivers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "phoneNumber": "13333333333",
    "phoneNumberList": [
      "13333333333"
    ],
    "endpointUuid": "467e77c4cc42492f9794429e689a9874",
    "type": "AliyunSms",
    "description": "description"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"phoneNumber":"13333333333","phoneNumberList":
["13333333333"],"endpointUuid":"467e77c4cc42492f9794429e689a9874","type":"AliyunS
http://localhost:8080/zstack/v1/sns/sms-endpoints/receivers
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
phoneNumber	String	body (contained in the params structure)	Optional. The phone number to receive SMS messages.		3.7.0
phoneNumberList	List	body (contained in the params structure)	Optional. The list of phone numbers to receive SMS messages.		5.1.8
endpointUuid	String	body (contained in the params structure)	The UUID of the SMS message endpoint.		3.7.0
type	String	body (contained in the params structure)	The SMS endpoint type.	- AliyunSms - UniversalSms	5.1.8
description	String	body (contained in the params structure)	Optional. The description of the SMS message receiver.		3.7.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.7.0

Name	Type	Location	Description	Optional Value	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "d122a14806e8405894d00034b0a91dd1",
      "phoneNumber": "18912345678",
      "endpointUuid": "d539f1d109534f90b0cbf50cff412585",
      "type": "AliyunSms",
      "description": "description",
      "createDate": "Jun 13, 2024 5:29:04 PM",
      "lastOpDate": "Jun 13, 2024 5:29:04 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventories	SNSSmsReceiverInventory	See inventories .	5.1.8

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	0.6

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
phoneNumber	String	The phone number to receive SMS messages.	3.7.0
endpointUuid	String	The UUID of the SMS message endpoint.	3.7.0
description	String	The description of the SMS message receiver.	3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0
type	SmsReceiverType	See type .	3.7.0

#type

Name	Type	Description	Starting Version
AliyunSms	SmsReceiverType	The Aliyun SMS message.	3.7.0
UniversalSms	SmsReceiverType	The universal SMS message.	5.1.8

SDK Sample

Java SDK

```
AddSNSSmsReceiverAction action = new AddSNSSmsReceiverAction();
action.phoneNumber = "13333333333";
action.phoneNumberList = asList("13333333333");
action.endpointUuid = "467e77c4cc42492f9794429e689a9874";
action.type = "AliyunSms";
action.description = "description";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddSNSSmsReceiverAction.Result res = action.call();
```

Python SDK

```
AddSNSSmsReceiverAction action = AddSNSSmsReceiverAction()
action.phoneNumber = "13333333333"
action.phoneNumberList = [13333333333]
action.endpointUuid = "467e77c4cc42492f9794429e689a9874"
action.type = "AliyunSms"
action.description = "description"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddSNSSmsReceiverAction.Result res = action.call()
```

6.1.1.2.48 RemoveSNSSmsReceiver

API Request

URLs

```
DELETE zstack/v1/sns/sms-endpoints/{endpointUuid}/receivers/
{phoneNumber}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/sns/sms-
endpoints/196b91815e983d1397cb336a4fc9d054/receivers/13333333333
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
endpointUuid	String	url	The UUID of the SMS endpoint.		3.7.0
phoneNumber	String	url	Optional. The phone number to receive SMS messages.		3.7.0
phoneNumberList	List	body	Optional. The list of phone numbers to receive SMS messages.		5.1.8
deleteMode	String	body	Optional.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveSNSSmsReceiverAction action = new RemoveSNSSmsReceiverAction();
action.endpointUuid = "196b91815e983d1397cb336a4fc9d054";
action.phoneNumber = "13333333333";
action.phoneNumberList = asList("13333333333");
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
RemoveSNSSmsReceiverAction.Result res = action.call();
```

Python SDK

```
RemoveSNSSmsReceiverAction action = RemoveSNSSmsReceiverAction()
action.endpointUuid = "196b91815e983d1397cb336a4fc9d054"
action.phoneNumber = "13333333333"
action.phoneNumberList = [13333333333]
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveSNSSmsReceiverAction.Result res = action.call()
```

6.1.1.2.49 QuerySNSSmsEndpoint

API Request

URLs

```
GET zstack/v1/sns/sms-endpoints
GET zstack/v1/sns/sms-endpoints/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/sms-endpoints?
q=name=SmsEndpoint
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/sms-
endpoints/5efca3a7d67031fbba5bc512e52a4798
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySNSSmsEndpoint**, and pressing the **Tab** key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
QuerySNSSmsEndpointAction action = new QuerySNSSmsEndpointAction();
action.conditions = asList("name=SmsEndpoint");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSSmsEndpointAction.Result res = action.call();
```

Python SDK

```
QuerySNSSmsEndpointAction action = QuerySNSSmsEndpointAction()
action.conditions = ["name=SmsEndpoint"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSSmsEndpointAction.Result res = action.call()
```

6.1.1.2.50 AddEmailAddressToSNSEmailEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/emails/email-addresses
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "emailAddress": "example@zstack.io",
    "endpointUuid": "74220bbf0d8b3c6b943a294c2679ca69"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"emailAddress":"example@zstack.io","endpointUuid":"74220bbf0d8b3c6b943a294c2679ca69"}}
```

```
http://localhost:8080/zstack/v1/sns/application-endpoints/emails/
email-addresses
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
emailAddress	String	body (contained in the params structure)	The email address.		3.7.0
endpointUuid	String	body (contained in the params structure)	The endpoint UUID.		3.7.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.7.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "02d89445bc1f4e2db80baa734563a312",
    "emailAddress": "example@zstack.io",
    "endpointUuid": "e99050f8f59649f0a9e842958665f1b3",
    "createDate": "Dec 25, 2023 2:04:26 PM",
    "lastOpDate": "Dec 25, 2023 2:04:26 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	SNSEmailAddressInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
emailAddress	String		3.7.0

Name	Type	Description	Starting Version
endpointUuid	String		3.7.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
AddEmailAddressToSNSEmailEndpointAction action = new AddEmailAd
dressToSNSEmailEndpointAction();
action.emailAddress = "example@zstack.io";
action.endpointUuid = "74220bbf0d8b3c6b943a294c2679ca69";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddEmailAddressToSNSEmailEndpointAction.Result res = action.call();
```

Python SDK

```
AddEmailAddressToSNSEmailEndpointAction action = AddEmailAddressToSNS
EmailEndpointAction()
action.emailAddress = "example@zstack.io"
action.endpointUuid = "74220bbf0d8b3c6b943a294c2679ca69"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddEmailAddressToSNSEmailEndpointAction.Result res = action.call()
```

6.1.1.2.51 UpdateEmailAddressOfSNSEmailEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/emails/email-addresses
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateEmailAddressOfSNSEmailEndpoint": {
    "emailAddressUuid": "cb2b3d85e0da3a299c52c23510ba15dd",
    "endpointUuid": "f305528eb6773a73beac3f94f79d3017",
    "emailAddress": "example@zstack.io"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateEmailAddressOfSNSEmailEndpoint":
{"emailAddressUuid":"cb2b3d85e0da3a299c52c23510ba15dd","endpointUuid":"f305528eb6
http://localhost:8080/zstack/v1/sns/application-endpoints/emails/
email-addresses
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
emailAddressUuid	String	body (contained in the updateEmailAddressOfSNSEmailEndpoint structure)	The email address UUID.		5.0.0
endpointUuid	String	body (contained in the updateEmailAddressOfSNSEmailEndpoint structure)	The endpoint UUID.		5.0.0
emailAddress	String	body (contained in the updateEmailAddressOfSNSEmailEndpoint structure)	The address of the new email.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "4d5bf84154764c9fb6e91c6739081bcf",
    "emailAddress": "example@zstack.io",
    "endpointUuid": "aac215a1d95d43c4ba4cad7ed3ad1670",
    "createDate": "Dec 25, 2023 2:07:43 PM",
    "lastOpDate": "Dec 25, 2023 2:07:43 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventory	SNSEmailAddressInventory	See inventory .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0

Name	Type	Description	Starting Version
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
emailAddress	String		3.7.0
endpointUuid	String		3.7.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
UpdateEmailAddressOfSNSEmailEndpointAction action = new UpdateEmailAddressOfSNSEmailEndpointAction();
action.emailAddressUuid = "cb2b3d85e0da3a299c52c23510ba15dd";
action.endpointUuid = "f305528eb6773a73beac3f94f79d3017";
action.emailAddress = "example@zstack.io";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateEmailAddressOfSNSEmailEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateEmailAddressOfSNSEmailEndpointAction action = UpdateEmailAddressOfSNSEmailEndpointAction()
action.emailAddressUuid = "cb2b3d85e0da3a299c52c23510ba15dd"
action.endpointUuid = "f305528eb6773a73beac3f94f79d3017"
action.emailAddress = "example@zstack.io"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateEmailAddressOfSNSEmailEndpointAction.Result res = action.call()
```

6.1.1.2.52 DeleteEmailAddressOfSNSEmailEndpoint

API Request

URLs

```
DELETE zstack/v1/sns/application-endpoints/emails/{endpointUuid}/  
email-addresses/{emailAddressUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X DELETE http://localhost:8080/zstack/v1/sns/application-  
endpoints/emails/c9d1789432133840862986db31a8e3fb/email-  
addresses/7671c40279e23d1cba927a5726957fcb
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
emailAddressUuid	String	url			3.7.0
endpointUuid	String	url			3.7.0
systemTags	List	body	Optional. The system tags.		3.7.0
userTags	List	body	Optional. The user tags.		3.7.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{  
  "error": {  
    "code": "SYS.1001",  
    "description": "A message or a operation timeout",  
    "details": "Create VM on KVM timeout after 300s"  
  }  
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteEmailAddressOfSNSEmailEndpointAction action = new DeleteEmail  
lAddressOfSNSEmailEndpointAction();  
action.emailAddressUuid = "7671c40279e23d1cba927a5726957fcb";  
action.endpointUuid = "c9d1789432133840862986db31a8e3fb";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
DeleteEmailAddressOfSNSEmailEndpointAction.Result res = action.call();
```

Python SDK

```
DeleteEmailAddressOfSNSEmailEndpointAction action = DeleteEmail  
lAddressOfSNSEmailEndpointAction()  
action.emailAddressUuid = "7671c40279e23d1cba927a5726957fcb"  
action.endpointUuid = "c9d1789432133840862986db31a8e3fb"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
DeleteEmailAddressOfSNSEmailEndpointAction.Result res = action.call()
```

6.1.1.2.53 QuerySNSEmailAddress

API Request

URLs

```
GET zstack/v1/sns/application-endpoints/emails/email-addresses
```

```
GET zstack/v1/sns/application-endpoints/emails/email-addresses/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/sns/  
application-endpoints/emails/email-addresses?  
q=uuid=b1a8e21bed1e3592af8ba5ffff497af6&q=endpointUuid=547ffd3cbdb2399d8c6dde2d98
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/  
emails/email-addresses/9c1b8131d9a03e3b88602a5072a89c0b
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySNSEmailAddress**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "102431efdb133a70b7e04347de22e396",
      "emailAddress": "test@zstack.io",
      "endpointUuid": "4ff65a1d7762348495dd0c4da110d7cd",
      "createDate": "Dec 25, 2023 2:08:35 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.0
inventories	List	See inventories .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.0
description	String	The brief description of the error.	3.7.0
details	String	The details about the error.	3.7.0
elaboration	String	The reserved field. Default value: null.	3.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.0
emailAddress	String		3.7.0
endpointUuid	String		3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

SDK Sample

Java SDK

```
QuerySNSEmailAddressAction action = new QuerySNSEmailAddressAction();
action.conditions = asList("uuid=19beae4d7df63aa6ba24b7422521af7b", "
endpointUuid=4758483d0db33c6bb82961d4c1e837aa");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSEmailAddressAction.Result res = action.call();
```

Python SDK

```
QuerySNSEmailAddressAction action = QuerySNSEmailAddressAction()
action.conditions = ["uuid=2ab2f6138c1c3b98b5834764c29dd596", "
endpointUuid=01106fe537473575be43fec7173e2dd1"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QuerySNSEmailAddressAction.Result res = action.call()
```

6.1.1.2.54 SNSMicrosoftTeamsTestConnection

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/microsoft-teams/test-connection
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "https://microsoft.com/cgi-bin/webhook/send?key\u003df8b9014a-207a-44d5-ae26-3501bf01dbc4",
    "testMsg": "hello",
    "endpointUuid": "1c201c27a81740ddadabc5d2f3f38a5e4"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"https://microsoft.com/cgi-bin/webhook/send?key=f8b9014a-207a-44d5-ae26-3501bf01dbc4","testMsg":"hello","endpointUuid":"1c201c27a81740ddadabc5d2f3f38a5e4"},"systemTags": [], "userTags": []}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/microsoft-teams/test-connection
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained in	Optional. The webhook url.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
testMsg	String	body (contained in the params structure)	Testing message text.		5.0.0
endpointUuid	String	body (contained in the params structure)	Optional. The microsoft teams endpoint uuid.		5.0.0
systemTags	List	body	Optional. The system tag.		5.0.0
userTags	List	body	Optional. The user tag.		5.0.0

API Response

Sample Response

```
{
  "connected": true,
  "webhookResp": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
connected	boolean	The webhook url connectivity id. (connectivity only)	5.0.0
webhookResp	LinkedHashMap	Webhook url sends a test message to the other end of the return.	5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

SDK Sample

Java SDK

```
SNSMicrosoftTeamsTestConnectionAction action = new SNSMicroso
ftTeamsTestConnectionAction();
action.url = "https://microsoft.com/cgi-bin/webhook/send?key=f8b9014a-
207a-44d5-ae26-3501bf01dbc4";
action.testMsg = "hello";
action.endpointUuid = "1c201c27a81740ddadbc5d2f3f38a5e4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SNSMicrosoftTeamsTestConnectionAction.Result res = action.call();
```

Python SDK

```
SNSMicrosoftTeamsTestConnectionAction action = SNSMicrosoftTeamsTes
tConnectionAction()
action.url = "https://microsoft.com/cgi-bin/webhook/send?key=f8b9014a-
207a-44d5-ae26-3501bf01dbc4"
action.testMsg = "hello"
action.endpointUuid = "1c201c27a81740ddadbc5d2f3f38a5e4"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SNSMicrosoftTeamsTestConnectionAction.Result res = action.call()
```

6.1.1.2.55 CreateSNSMicrosoftTeamsEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/microsoft-teams
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "http://teams-robot-url",
    "name": "Microsoft teams"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"http://teams-robot-url","name":"Microsoft teams"}}' http://localhost:8080/zstack/v1/sns/application-endpoints/microsoft-teams
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained in the params structure)	The connector URL.		3.10.0
name	String	body (contained in	The resource name.		3.10.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.10.0
platformUuid	String	body (contained in the params structure)	Optional. The notification platform uuid.		3.10.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.10.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.10.0
systemTags	List	body	Optional. The system tags.		3.10.0
userTags	List	body	Optional. The user tags.		3.10.0

API Response

Sample Response

```
{
  "inventory": {
    "url": "http://teams-robot-url",
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:06:32 PM",
    "lastOpDate": "Dec 25, 2023 2:06:32 PM"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.10.0
inventory	SNSSmsEndpointInventory	See inventory .	3.10.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.10.0
description	String	The brief description of the error.	3.10.0
details	String	The details about the error.	3.10.0
elaboration	String	The reserved field. Default value: null.	3.10.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.10.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.10.0

#inventory

Name	Type	Description	Starting Version
url	String	The connector URL.	3.10.0
name	String	The resource name.	3.10.0
uuid	String	The resource UUID.	3.10.0
description	String	The detailed description of the resource.	3.10.0
type	String		3.10.0
state	String		3.10.0
platformUuid	String		3.10.0
createDate	Timestamp	The creation date.	3.10.0
lastOpDate	Timestamp	The last operation date.	3.10.0

SDK Sample

Java SDK

```
CreateSNSMicrosoftTeamsEndpointAction action = new CreateSNSMicrosoftTeamsEndpointAction();  
action.url = "http://teams-robot-url";  
action.name = "Microsoft teams";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
CreateSNSMicrosoftTeamsEndpointAction.Result res = action.call();
```

Python SDK

```
CreateSNSMicrosoftTeamsEndpointAction action = CreateSNSMicrosoftTeamsEndpointAction()  
action.url = "http://teams-robot-url"  
action.name = "Microsoft teams"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
CreateSNSMicrosoftTeamsEndpointAction.Result res = action.call()
```

6.1.1.2.56 UpdateSNSMicrosoftTeamsEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/microsoft-teams/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSMicrosoftTeamsEndpoint": {
    "url": "https://open.microsoft-teams.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81",
    "name": "new name",
    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSMicrosoftTeamsEndpoint":{"url":"https://open.microsoft-teams.cn/open-apis/bot/v2/hook/006879a3-0898-4428-aad4-3221db3daf81","name":"new name","description":"desc"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/microsoft-teams/74653e34090f3c6fbe9f45b693600dcf/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the updateSNSMicrosoftTeamsEndpoint structure)	Optional. The resource name.		5.0.0
description	String	body (contained in the updateSNSMicrosoftTeamsEndpoint structure)	Optional. The detailed description of the resource.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:04:12 PM",
    "lastOpDate": "Dec 25, 2023 2:04:12 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	5.0.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	SNSApplicationEndpointInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	5.0.0
uuid	String	The resource UUID.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The type.	5.0.0

Name	Type	Description	Starting Version
platformUuid	String	The application platform UUID.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
UpdateSNSMicrosoftTeamsEndpointAction action = new UpdateSNSM
icrosoftTeamsEndpointAction();
action.url = "https://open.microsoft-teams.cn/open-apis/bot/v2/hook/
006879a3-0898-4428-aad4-3221db3daf81";
action.uuid = "74653e34090f3c6fbe9f45b693600dcf";
action.name = "new name";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSMicrosoftTeamsEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateSNSMicrosoftTeamsEndpointAction action = UpdateSNSMicrosoftTe
amsEndpointAction()
action.url = "https://open.microsoft-teams.cn/open-apis/bot/v2/hook/
006879a3-0898-4428-aad4-3221db3daf81"
action.uuid = "74653e34090f3c6fbe9f45b693600dcf"
action.name = "new name"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSNSMicrosoftTeamsEndpointAction.Result res = action.call()
```

6.1.1.2.57 QuerySNSMicrosoftTeamsEndpoint

API Request

URLs

```
GET zstack/v1/sns/application-endpoints/microsoft-teams
```

```
GET zstack/v1/sns/application-endpoints/microsoft-teams/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/  
microsoft-teams?q=url=http://teams-url
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySNSMicrosoftTeamsEndpoint**, and pressing the **Tab** key.

API Response

Sample Response

```
{  
  "error": {  
    "code": "SYS.1001",  
    "description": "A message or a operation timeout",  
    "details": "Create VM on KVM timeout after 300s"  
  }  
}
```

SDK Sample

Java SDK

```
QuerySNSMicrosoftTeamsEndpointAction action = new QuerySNSMicrosoftTea  
msEndpointAction();  
action.conditions = asList("url=http://teams-url");  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
QuerySNSMicrosoftTeamsEndpointAction.Result res = action.call();
```

Python SDK

```
QuerySNSMicrosoftTeamsEndpointAction action = QuerySNSMicrosoftTea  
msEndpointAction()  
action.conditions = ["url=http://teams-url"]  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QuerySNSMicrosoftTeamsEndpointAction.Result res = action.call()
```

6.1.1.2.58 SubscribeNSTopic

API Request

URLs

```
POST zstack/v1/sns/topics/{topicUuid}/endpoints/{endpointUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' \
http://localhost:8080/zstack/v1/sns/
topics/755ac6aea82f3365a66b86258c55189e/endpoints/
c1f5c1e23ff13001b249c18253984741
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
topicUuid	String	url	The application topic UUID.		2.3
endpointUuid	String	url	The endpoint UUID.		2.3
systemTags	List	body	Optional. The system tags.		2.3

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SubscribeSNSTopicAction action = new SubscribeSNSTopicAction();
action.topicUuid = "755ac6aea82f3365a66b86258c55189e";
action.endpointUuid = "c1f5c1e23ff13001b249c18253984741";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SubscribeSNSTopicAction.Result res = action.call();
```

Python SDK

```
SubscribeSNSTopicAction action = SubscribeSNSTopicAction()
action.topicUuid = "755ac6aea82f3365a66b86258c55189e"
action.endpointUuid = "c1f5c1e23ff13001b249c18253984741"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SubscribeSNSTopicAction.Result res = action.call()
```

6.1.1.2.59 QuerySNSTopicSubscriber

API Request

URLs

```
GET zstack/v1/sns/topics/subscribers
```

```
GET zstack/v1/sns/topics/subscribers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/topics/subscribers?
q=topicUuid=3677dc0f00964b80886f3b2bbf9338cd
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/topics/
subscribers/15b4071325193fdcbae66b6388ea9c6f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySNSTopicSubscriber**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "topicUuid": "3677dc0f00964b80886f3b2bbf9338cd",
      "endpointUuid": "f8c5c56233844126ad5f5a0174da3098"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3.1
inventories	List	See inventories .	2.3.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3.1
description	String	The brief description of the error.	2.3.1
details	String	The details about the error.	2.3.1
elaboration	String	The reserved field. Default value: null.	2.3.1
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3.1

#inventories

Name	Type	Description	Starting Version
topicUuid	String	The topic UUID.	2.3.1
endpointUuid	String	The endpoint UUID.	2.3.1
createDate	Timestamp	The creation date.	2.3.1
lastOpDate	Timestamp	The last operation date.	2.3.1

SDK Sample

Java SDK

```
QuerySNSTopicSubscriberAction action = new QuerySNSTopicSubscriberAction();
action.conditions = asList("topicUuid=3677dc0f00964b80886f3b2bbf9338cd");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QuerySNSTopicSubscriberAction.Result res = action.call();
```

Python SDK

```
QuerySNSTopicSubscriberAction action = QuerySNSTopicSubscriberAction()
action.conditions = ["topicUuid=3677dc0f00964b80886f3b2bbf9338cd"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSTopicSubscriberAction.Result res = action.call()
```

6.1.1.2.60 UnsubscribeSNSTopic

API Request

URLs

```
DELETE zstack/v1/sns/topics/{topicUuid}/endpoints/{endpointUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
sns/topics/bd6c49ad623a3740880ca6d3ed3bb793/
endpoints/36d6eb53f7c23fbca1ac72008940efc8?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
topicUuid	String	url	The topic UUID.		2.3
endpointUuid	String	url	The endpoint UUID.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UnsubscribeSNSTopicAction action = new UnsubscribeSNSTopicAction();
action.topicUuid = "bd6c49ad623a3740880ca6d3ed3bb793";
action.endpointUuid = "36d6eb53f7c23fbca1ac72008940efc8";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UnsubscribeSNSTopicAction.Result res = action.call();
```

Python SDK

```
UnsubscribeSNSTopicAction action = UnsubscribeSNSTopicAction()
action.topicUuid = "bd6c49ad623a3740880ca6d3ed3bb793"
action.endpointUuid = "36d6eb53f7c23fbca1ac72008940efc8"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UnsubscribeSNSTopicAction.Result res = action.call()
```

6.1.1.2.61 CreateSNSSnmpEndpoint

API Request

URLs

```
POST zstack/v1/sns/sms-endpoints/snmp
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "snmp endpoint",
    "platformUuid": "c453382b049c3280b69157501914870d"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \-X POST -d
'{"params":{"name":"snmp
endpoint","platformUuid":"c453382b049c3280b69157501914870d"}}' \
http://localhost:8080/zstack/v1/sns/sms-endpoints/snmp
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		5.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		5.0.0
platformUuid	String	body (contained in the params structure)	Optional.		5.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource uuid.		5.0.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:08:53 PM",
    "lastOpDate": "Dec 25, 2023 2:08:53 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSApplicationEndpointInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0

Name	Type	Description	Starting Version
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The name of the resource.	5.0.0
uuid	String	The resource uuid.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The resource type.	5.0.0
platformUuid	String	The application platform.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
CreateSNSSnmpEndpointAction action = new CreateSNSSnmpEndpointAction
();
action.name = "snmp endpoint";
action.platformUuid = "c453382b049c3280b69157501914870d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreateSNSSnmpEndpointAction.Result res = action.call();
```

Python SDK

```
CreateSNSSnmpEndpointAction action = CreateSNSSnmpEndpointAction()
action.name = "snmp endpoint"
action.platformUuid = "c453382b049c3280b69157501914870d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSNSSnmpEndpointAction.Result res = action.call()
```

6.1.1.2.62 CreateSNSSnmpPlatform

API Request

URLs

```
POST zstack/v1/sns/application-platforms/snmp
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "snmpAddress": "127.0.0.1",
    "snmpPort": 161,
    "name": "snmp platform"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"snmpAddress":"127.0.0.1","snmpPort":161,"name":"snmp platform"}}' \
http://localhost:8080/zstack/v1/sns/application-platforms/snmp
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
snmpAddress	String	body (contained in the params structure)	The SNMP server address.		5.0.0
snmpPort	Integer	body (contained in the params structure)	The SNMP port.		5.0.0
name	String	body (contained in the params structure)	The resource name.		5.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		5.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource uuid.		5.0.0
tagUuids	List	body (contained in the params structure)	Optional. The tag uuid list.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "660744a0d0cd4fe4ad1c11181955f30f",
    "name": "email platform",
    "description": "example description",
    "state": "Enabled",
    "type": "Email",
```



```

    "createDate": "Dec 25, 2023 2:07:14 PM",
    "lastOpDate": "Dec 25, 2023 2:07:14 PM"
  }
}

```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSApplicationPlatformInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
name	String	The resource name.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The type.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
CreateSNSSnmpPlatformAction action = new CreateSNSSnmpPlatformAction
();
action.snmpAddress = "127.0.0.1";
action.snmpPort = 161;
action.name = "snmp platform";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSSnmpPlatformAction.Result res = action.call();
```

Python SDK

```
CreateSNSSnmpPlatformAction action = CreateSNSSnmpPlatformAction()
action.snmpAddress = "127.0.0.1"
action.snmpPort = 161
action.name = "snmp platform"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSNSSnmpPlatformAction.Result res = action.call()
```

6.1.1.2.63 SNSSnmpTestConnection

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/snmp/test-connection
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "platformUuid": "d71f754a80663dc7a6a2003cc5667846",
```

```
"endpointUuid": "e3a38d5d8d123991bd0a986150f3e6df"
},
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"platformUuid": "d71f754a80663dc7a6a2003cc5667846", "endpointUuid": "e3a38d5d8d123991bd0a986150f3e6df",
"http://localhost:8080/zstack/v1/sns/application-endpoints/snmp/test-connection"
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
platformUuid	String	body (contained in the params structure)	Optional. The SNMP Platform UUID.		5.1.8
endpointUuid	String	body (contained in the params structure)	Optional. The SNMP endpoint UUID.		5.1.8
systemTags	List	body	Optional. The system tags.		5.1.8
userTags	List	body	Optional. The user tags.		5.1.8

API Response**Sample Response**

```
{
  "connected": true,
  "webhookResp": {}
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.1.8
connected	boolean	Whether the endpoint is connected.	5.1.8
webhookResp	LinkedHashMap	The response from the endpoint.	5.1.8
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.8

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.8
description	String	The brief description of the error.	5.1.8
details	String	The details about the error.	5.1.8
elaboration	String	The reserved field. Default value: null.	5.1.8
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.8
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.8

SDK Sample

Java SDK

```
SNSSnmpTestConnectionAction action = new SNSSnmpTestConnectionAction
();
action.platformUuid = "d71f754a80663dc7a6a2003cc5667846";
action.endpointUuid = "e3a38d5d8d123991bd0a986150f3e6df";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SNSSnmpTestConnectionAction.Result res = action.call();
```

Python SDK

```
SNSSnmpTestConnectionAction action = SNSSnmpTestConnectionAction()
action.platformUuid = "d71f754a80663dc7a6a2003cc5667846"
action.endpointUuid = "e3a38d5d8d123991bd0a986150f3e6df"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SNSSnmpTestConnectionAction.Result res = action.call()
```

6.1.1.2.64 QuerySNSSnmpPlatform

API Request

URLs

```
GET zstack/v1/sns/application-platforms/snmp
GET zstack/v1/sns/application-platforms/snmp/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-platforms/snmp?
q=name=snmp
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-platforms/snmp/
b9a635c9ff7c3544a232cad5b9a4aaf7
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QuerySNSSnmpPlatform`, and pressing the **Tab** key.

API Response

Sample Response

The API returns an empty JSON structure {} upon successful execution, and in case of an error, the returned JSON structure includes an "error" field, for example:

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QuerySNSSnmpPlatformAction action = new QuerySNSSnmpPlatformAction();
action.conditions = asList("name=snmp");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSSnmpPlatformAction.Result res = action.call();
```

Python SDK

```
QuerySNSSnmpPlatformAction action = QuerySNSSnmpPlatformAction()
action.conditions = ["name=snmp"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSSnmpPlatformAction.Result res = action.call()
```

6.1.1.2.65 UpdateSNSSnmpPlatform

API Request

URLs

```
PUT zstack/v1/sns/application-platforms/snmp/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSSnmpPlatform": {
    "snmpAddress": "127.0.0.1",
    "snmpPort": 161,
    "name": "snmp platform name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSSnmpPlatform":
{"snmpAddress":"127.0.0.1","snmpPort":161,"name":"snmp platform
name"}}' \
http://localhost:8080/zstack/v1/sns/application-platforms/snmp/
cbd548888e9d37b594bc99c1892589ed
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
snmpAddress	String	body (contained in the updateSNSSnmpPlatform structure)	The SNMP server address.		
snmpPort	Integer	body (contained in the updateSNSSnmpPlatform structure)	The SNMP port.		5.0.0
uuid	String	url	The resource uuid.		5.0.0
name	String	body (contained in the updateSNSSnmpPlatform structure)	Optional. The resource name.		5.0.0
description	String	body (contained in the updateSNSSnmpPlatform structure)	Optional. The detailed description of the resource.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3bafba4ecdd647e8ba092a0adffcc9fe",
    "name": "email platform",
    "description": "example description",
    "state": "Enabled",
    "type": "Email",
    "createDate": "Dec 25, 2023 2:06:05 PM",
    "lastOpDate": "Dec 25, 2023 2:06:05 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSApplicationPlatformInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
name	String	The resource name.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The type.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
UpdateSNSSnmpPlatformAction action = new UpdateSNSSnmpPlatformAction
();
action.snmpAddress = "127.0.0.1";
action.snmpPort = 161;
action.uuid = "cbd548888e9d37b594bc99c1892589ed";
action.name = "snmp platform name";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
UpdateSNSSnmpPlatformAction.Result res = action.call();
```

Python SDK

```
UpdateSNSSnmpPlatformAction action = UpdateSNSSnmpPlatformAction()
action.snmpAddress = "127.0.0.1"
action.snmpPort = 161
action.uuid = "cbd548888e9d37b594bc99c1892589ed"
action.name = "snmp platform name"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSNSSnmpPlatformAction.Result res = action.call()
```

6.1.1.2.66 SNSMicrosoftTeamsTestConnection

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/we-com/test-connection
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key\u003df8b9014a-207a-44d5-ae26-3501bf01dbc4",
    "atAll": false,
    "atPersonUserIds": [
      "zhangsan",
      "lisi"
    ],
    "testMsg": "hello",
    "endpointUuid": "1c201c27a81740ddadabc5d2f3f38a5e4"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key=f8b9014a-207a-44d5-ae26-3501bf01dbc4","atAll":false,"atPersonUserIds":
```

```
[{"zhangsangsan","lisi"],"testMsg":"hello","endpointUuid":"1c201c27a81740ddadbc5d2f3f3"}
http://localhost:8080/zstack/v1/sns/application-endpoints/we-com/test-connection
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
testMsg	String	body (contained in the params structure)	Testing message text.		5.0.0
endpointUuid	String	body (contained in the params structure)	Optional. The WeCom endpoint uuid.		5.0.0
systemTags	List	body	Optional. The system tag.		5.0.0
userTags	List	body	Optional. The user tag.		5.0.0
url	String	body (contained in the params structure)	Optional. The webhook url.		5.0.0
atAll	Boolean		Optional. @all people		5.0.0
atPersonUserIds	List		Optional. @user id collection.		5.0.0

API Response

Sample Response

```
{
  "connected": true,
  "webhookResp": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0

Name	Type	Description	Starting Version
connected	boolean	The webhook url connectivity id. (connectivity only)	5.0.0
webhookResp	boolean	Webhook url sends a test message to the other end of the return.	5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

SDK Sample

Java SDK

```
SNSWeComTestConnectionAction action = new SNSWeComTestConnectionAction();
action.url = "https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key=f8b9014a-207a-44d5-ae26-3501bf01dbc4";
action.atAll = false;
action.atPersonUserIds = asList("zhangsan", "lisi");
action.testMsg = "hello";
action.endpointUuid = "1c201c27a81740ddadabc5d2f3f38a5e4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SNSWeComTestConnectionAction.Result res = action.call();
```

Python SDK

```
SNSWeComTestConnectionAction action = SNSWeComTestConnectionAction()
action.url = "https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key=f8b9014a-207a-44d5-ae26-3501bf01dbc4"
action.atAll = false
action.atPersonUserIds = [zhangsan, lisi]
action.testMsg = "hello"
action.endpointUuid = "1c201c27a81740ddadabc5d2f3f38a5e4"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SNSWeComTestConnectionAction.Result res = action.call()
```

6.1.1.2.67 AddSNSWeComAtPerson

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/we-com/at-persons
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "userId": "18099997777",
    "endpointUuid": "3af92b4b14e83963b8565f194f302fce",
    "remark": "jack"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"userId":"18099997777","endpointUuid":"3af92b4b14e83963b8565f194f302fce","remark":
\
http://localhost:8080/zstack/v1/sns/application-endpoints/we-com/at-
persons
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
userId	String	body (contained in the params structure)	The WeCom Id.		5.0.0
endpointUuid	String	body (contained in the params structure)	The UUID of the WeCom endpoint.		5.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource uuid.		5.0.0
tagUuid	List	body (contained in the params structure)	Optional. The tag uuid list.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0
remark	String	body (contained in the params structure)	Optional. The remark.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b354a3fbec2e449d92708ccfd4dabb17",
    "userId": "18988887777",
    "endpointUuid": "346f6422817e4147bf405a38d0b69f5e",
    "remark": "jack"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSWeComAt PersonInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root	5.0.0

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
userId	String	The ID of the WeCom user.	5.0.0
endpointUuid	String	The UUID of the WeCom endpoint.	5.0.0

SDK Sample

Java SDK

```
AddSNSWeComAtPersonAction action = new AddSNSWeComAtPersonAction();
action.userId = "18099997777";
action.endpointUuid = "3af92b4b14e83963b8565f194f302fce";
action.remark = "jack";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddSNSWeComAtPersonAction.Result res = action.call();
```

Python SDK

```
AddSNSWeComAtPersonAction action = AddSNSWeComAtPersonAction()
action.userId = "18099997777"
action.endpointUuid = "3af92b4b14e83963b8565f194f302fce"
action.remark = "jack"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
AddSNSWeComAtPersonAction.Result res = action.call()
```

6.1.1.2.68 CreateSNSWeComEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/we-com
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key\u003df8b9014a-207a-44d5-ae26-3501bf01dbc4",
    "atAll": false,
    "atPersonUserIds": [
      "18900002222",
      "13377778888"
    ],
    "atPersonList": {
      "13377778888": "jack"
    },
    "name": "wecom"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"url":"https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key=f8b9014a-207a-44d5-ae26-3501bf01dbc4","atAll":false,"atPersonUserIds":["18900002222","13377778888"],"atPersonList":{"13377778888":"jack"},"name":"wecom"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/we-com
```

Request Parameters

Name	Type	Location	Description	Options Value	Starting Version
url	String	body (contained in the params structure)	The webhook URL of the WeCom robot.		5.0.0
atAll	Boolean	body (contained in the params structure)	Optional. Whether to notify all (@All) members in a WeCom group.		5.0.0
atPersonUsersIds	List	body (contained in the params structure)	Optional. @user_id.		5.0.0
name	String	body (contained in the params structure)	The resource name.		5.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		5.0.0
platformUuid	String	body (contained in the params structure)	Optional. The notification platform uuid.		5.0.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource uuid.		5.0.0
tagUuids	List	body (contained in the params structure)	Optional. The tag uuid list.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0

Name	Type	Location	Description	Options Value	Starting Version
userTags	List	body	Optional. The user tags.		5.0.0
atPersonList	Map	body (contained in the params structure)	Optional. The @person information. (Recommend)		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "url": "http://wecom-url",
    "atAll": false,
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:05:58 PM",
    "lastOpDate": "Dec 25, 2023 2:05:58 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSWeComEndpointInventory	See inventory	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	5.0.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
url	String	The URL of the WeCom robot.	5.0.0
atAll	boolean	Whether to notify all (@All) members in a WeCom group.	5.0.0
atPersonUserIds	List	The user id of the group member to be notified (the @user_id).	5.0.0
name	String	The resource name.	5.0.0
uuid	String	The resource UUID.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The endpoint type.	5.0.0
state	String	The application platform.	5.0.0

Name	Type	Description	Starting Version
platformUuid	String	The application platform UUID.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0
platform	SNSApplicationPlatformInventory	See platform .	5.0.0

platform

Name	Type	Description	Starting Version
uuid	String	The resource uuid.	5.0.0
name	String	The resource name.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The resource type.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
CreateSNSWeComEndpoint action = new CreateSNSWeComEndpoint();
action.url = "https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key\u003df8b9014a-207a-44d5-ae26-3501bf01dbc4";
action.atAll = false;
action.atPersonUserIds = asList("18900002222", "13377778888");
action.name = "wecom";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSWeComEndpoint.Result res = action.call();
```

Python SDK

```
CreateSNSWeComEndpoint action = new CreateSNSWeComEndpoint()
action.url = "https://qyapi.weixin.qq.com/cgi-bin/webhook/send?key\u003df8b9014a-207a-44d5-ae26-3501bf01dbc4"
action.atAll = false
action.atPersonUserIds = asList("18900002222", "13377778888")
action.name = "wecom"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateSNSWeComEndpoint.Result res = action.call()
```

6.1.1.2.69 RemoveSNSWeComAtPerson

API Request

URLs

```
DELETE zstack/v1/sns/application-endpoints/we-com/{endpointUuid}/at-  
persons/{userId}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X DELETE http://localhost:8080/zstack/v1/sns/application-endpoints/  
we-com/169842ede65135aeb32d0a88b644f8eb/at-persons/18988887777?
```

Request Parameters

Name	Type	Location	Description	Optional Version	Starting Version
endpointUuid	String	url	The WeCom rebot webhook url.		5.0.0
userId	String	url	TheWebCom user Id.		5.0.0
deleteMode	String	body	Optional. Delete mode(Permissive / Enforcing, Permissive)		5.0.0
systemTags	List	body	Optional. The system tag.		5.0.0
userTags	List	body	Optional. The user tag.		5.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveSNSWeComAtPersonAction action = new RemoveSNSWeComAtPersonAction
();
action.endpointUuid = "169842ede65135aeb32d0a88b644f8eb";
action.userId = "18988887777";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveSNSWeComAtPersonAction.Result res = action.call();
```

Python SDK

```
RemoveSNSWeComAtPersonAction action = RemoveSNSWeComAtPersonAction()
action.endpointUuid = "169842ede65135aeb32d0a88b644f8eb"
action.userId = "18988887777"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveSNSWeComAtPersonAction.Result res = action.call()
```

6.1.1.2.70 UpdateAtPersonOfAtWeComEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/we-com/at-persons/{uuid}/
actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAtPersonOfAtWeComEndpoint": {
    "endpointUuid": "4aec8a68c63439f197df9623ec89cda6",
    "userId": "zhang.san",
    "remark": "jack"
  }
}
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAtPersonOfAtWeComEndpoint":
{"endpointUuid":"4aec8a68c63439f197df9623ec89cda6", "userId":"zhang.san", "remark":
\
http://localhost:8080/zstack/v1/sns/application-endpoints/we-com/at-
persons/87df59c09f0336c2817d318a468f717c/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		5.0.0
endpointUuid	String	body (contained in the updateAtPersonOfAtWeComEndpoint structure)	The WeCom endpoint uuid.		5.0.0
userId	String	body (contained in the updateAtPersonOfAtWeComEndpoint structure)	Optional. The user id.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
remark	String	body (contained in the updateAtPersonOfAtWeComEndpoint structure)	Optional. The remark.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "018934b79afc42cdbc7cb18f0330580e",
    "userId": "18988887777",
    "endpointUuid": "3579680f648d41af8a96218a339bd7b3",
    "remark": "jack"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSWeComAtPersonInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
userId	String	The WeCom user id.	5.0.0
endpointUuid	String	The WeCom endpoint uuid.	5.0.0

SDK Sample

Java SDK

```
UpdateAtPersonOfAtWeComEndpointAction action = new UpdateAtPersonOfAtWeComEndpointAction();
action.uuid = "87df59c09f0336c2817d318a468f717c";
action.endpointUuid = "4aec8a68c63439f197df9623ec89cda6";
action.userId = "zhang.san";
action.remark = "jack";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAtPersonOfAtWeComEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateAtPersonOfAtWeComEndpointAction action = UpdateAtPersonOfAtWeComEndpointAction()
action.uuid = "87df59c09f0336c2817d318a468f717c"
action.endpointUuid = "4aec8a68c63439f197df9623ec89cda6"
action.userId = "zhang.san"
action.remark = "jack"
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAtPersonOfAtWeComEndpointAction.Result res = action.call()
```

6.1.1.2.71 UpdateSNSWeComEndpoint

API Request

URLs

```
PUT zstack/v1/sns/application-endpoints/we-com/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSWeComEndpoint": {
    "url": "https://we-com.com",
    "atAll": false,
    "name": "new name",
    "description": "desc"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSWeComEndpoint":{"url":"https://we-com.com","atAll":false,"name":"new name","description":"desc"}}' \
http://localhost:8080/zstack/v1/sns/application-endpoints/we-com/a7f66f9db3d134808a5fe9c469ab8fd4/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained in the updateSNSW	Optional. The webhook url.		5.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		eComEndpoint structure)			
atAll	Boolean	body (contained in the updateNSWEComEndpoint structure)	Optional. @all people		5.0.0
uuid	String	url	The resource UUID.		5.0.0
name	String	body (contained in the updateNSWEComEndpoint structure)	Optional. The resource name.		5.0.0
description	String	body (contained in the updateNSWEComEndpoint structure)	Optional. The detailed description of the resource.		5.0.0
systemTags	List	body	Optional. The system tags.		5.0.0
userTags	List	body	Optional. The user tags.		5.0.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Dec 25, 2023 2:08:01 PM",
    "lastOpDate": "Dec 25, 2023 2:08:01 PM"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventory	SNSApplicationEndpointInventory	See inventory .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	5.0.0
uuid	String	The resource UUID.	5.0.0
description	String	The detailed description of the resource.	5.0.0
type	String	The type.	5.0.0
platformUuid	String	The application platform UUID.	5.0.0
createDate	Timestamp	The creation date.	5.0.0
lastOpDate	Timestamp	The last operation date.	5.0.0

SDK Sample

Java SDK

```
UpdateSNSWeComEndpointAction action = new UpdateSNSWeComEndpointAction
();
action.url = "https://we-com.com";
action.atAll = false;
action.uuid = "a7f66f9db3d134808a5fe9c469ab8fd4";
action.name = "new name";
action.description = "desc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSNSWeComEndpointAction.Result res = action.call();
```

Python SDK

```
UpdateSNSWeComEndpointAction action = UpdateSNSWeComEndpointAction()
action.url = "https://we-com.com"
action.atAll = false
action.uuid = "a7f66f9db3d134808a5fe9c469ab8fd4"
action.name = "new name"
action.description = "desc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateSNSWeComEndpointAction.Result res = action.call()
```

6.1.1.2.72 QuerySNSWeComAtPerson

API Request

URLs

```
GET zstack/v1/sns/application-endpoints/we-com/at-persons
```

```
GET zstack/v1/sns/application-endpoints/we-com/at-persons/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/
application-endpoints/we-com/at-persons?
q=uuid=ec74d6afc6fa32419a8e22857038dca8&q=endpointUuid=b1a06b4282043ec39305377a30
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-endpoints/we-
com/at-persons/8ab29c25622e3419b5690b6002596af3
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySNSWeComAtPerson**, and pressing the **Tab** key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "02be8517bdda3a3990343870d24a55df",
      "userId": "zhang.san",
      "endpointUuid": "6c8dafc01f3135ec954d6fd937f4e0e1"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.0.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.0.0
inventories	List	See inventories .	5.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.0.0
description	String	The brief description of the error.	5.0.0
details	String	The details about the error.	5.0.0
elaboration	String	The reserved field. Default value: null.	5.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.0.0
userId	String	The WeCom user id.	5.0.0

Name	Type	Description	Starting Version
endpointUuid	String	The WeCom endpoint uuid	5.0.0

SDK Sample

Java SDK

```
QuerySNSWeComAtPersonAction action = new QuerySNSWeComAtPersonAction
();
action.conditions = asList("uuid=4bd23fb21c7d3d4d9d5d18b794ab05d0", "
endpointUuid=a0b96b1f27fa3ef992e1fd37b1ab58f9");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSWeComAtPersonAction.Result res = action.call();
```

Python SDK

```
QuerySNSWeComAtPersonAction action = QuerySNSWeComAtPersonAction()
action.conditions = ["uuid=0f5346ee4a9d36da9228e57e3249f853", "
endpointUuid=6f42b53c5a9336368921441afdf19583"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSWeComAtPersonAction.Result res = action.call()
```

6.1.2 Capacity Management Operations

6.1.2.1 GetManagementNodeDirCapacity

API Request

URLs

```
GET zstack/v1/zwatch/mn
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/zwatch/mn?
managementNodeUids=33a2f11d59aa321aa4acfa78afe8f35a&managementNodeUids=6bf0aca3
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
management NodeUids	List	query	Optional. The management node UUID.		3.9.0
systemTags	List	query	Optional. The system tags.		3.9.0
userTags	List	query	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "result": {
    "3b16bb23007634b3a0f35dec4cb10c28": [
      {
        "name": "total",
        "size": "128000"
      },
      {
        "name": "used",
        "size": "127000"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
result	Map	The contents in the management node directory.	3.9.0
success	boolean		3.9.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
error	ErrorCode	See error .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

SDK Sample

Java SDK

```
GetManagementNodeDirCapacityAction action = new GetManagementNodeDirCapacityAction();
action.managementNodeUuids = asList("33a2f11d59aa321aa4acfa78afe8f35a", "6bf0aca356a13cf787d87ceeb8fcb7f");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetManagementNodeDirCapacityAction.Result res = action.call();
```

Python SDK

```
GetManagementNodeDirCapacityAction action = GetManagementNodeDirCapacityAction()
action.managementNodeUuids = ["33a2f11d59aa321aa4acfa78afe8f35a", "6bf0aca356a13cf787d87ceeb8fcb7f"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetManagementNodeDirCapacityAction.Result res = action.call()
```

6.2 Backup Management

6.2.1 Backup Service (Plus)

The Backup Service feature is provided in a separate module. Before you can use this feature, you need to purchase the Plus License of Backup Service, in addition to the Base License.

6.2.1.1 Backup Service Operations

6.2.1.1.1 CreateVolumeBackup

API Request

URLs

```
POST zstack/v1/volumes/{volumeUuid}/volume-backups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "backupStorageUuid": "1c4b0a3a24533c4faa9b156a0ef98fdf",
    "name": "backup-1",
    "description": "a critical volume backup"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"backupStorageUuid":"1c4b0a3a24533c4faa9b156a0ef98fdf","name":"backup-1","description":"a critical volume backup"}}' http://localhost:8080/zstack/v1/volumes/ec7196ba2d993236aceddd9b31f5d19b/volume-backups
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
volumeUuid	String	body (contained in the params structure)	The UUID of the volume.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	body (contained in the params structure)	The UUID of the backup storage.		2.6.0
name	String	body (contained in the params structure)	The name of the backup.		2.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the backup.		2.6.0
resourceUuid	String	body (contained in the params structure)	Optional. Specify a UUID of the backup.		2.6.0
volumeReadBandwidth	Long	body (contained in the params structure)	Optional. The maximum speed at which data from the volume is read.		3.1.0
volumeWriteBandwidth	Long	body (contained in the params structure)	Optional. The maximum speed at which data is written to the volume.		3.1.0
networkReadBandwidth	Long	body (contained in the params structure)	Optional. The network bandwidth for data reads.		3.1.0
networkWriteBandwidth	Long	body (contained in the params structure)	Optional. The network bandwidth for data writes.		3.1.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

**Note:**

- When you create a volume backup in ZStack Cloud, the data of the volume in a host will be backed up to an ImageStore backup storage. Note that the data exchange in this process will use the backup network. You can add the **backupnetwork** option to **SystemTags**.
 - Format of the **backupnetwork** option: `backup::network::cidr::CIDR`
 - Example: `backup::network::cidr::10.0.0.0/8`
- When you create a volume backup in ZStack Cloud, you can specify how to back up the volume data to the backup storage by adding the **fsInfo** option to **SystemTags**.
 - Format of the **fsInfo** option: `fsInfo::type::$TYPE::url::$URL::options::$OPTIONS`
 - Example: `fsInfo::type::nfs::url::172.32.1.119:/nas/nfs2::options::nolock,vers=3,rsiz=32768,wsiz=32768`
- When you create a volume backup in ZStack Cloud, you can configure the concurrency level for the volume backup by adding the **volumeLiveBackup** option to **SystemTags**.
 - Format of the **volumeLiveBackup** option: `volumeLiveBackup::parallelismDegree::$NUMBER`
 - Example: `volumeLiveBackup::parallelismDegree::1`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "6bd6608ecda63747b2471a02b42704d6",
    "volumeUuid": "1a0c6b2ca31a3b40b2c06a0f2ecb0849",
    "name": "Backup-1",
    "description": "volume backup",
    "size": 1.073741824E9,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	VolumeBackupInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume backup.	2.6.0

Name	Type	Description	Starting Version
volumeUuid	String	The UUID of the volume.	2.6.0
name	String	The name of the volume backup.	2.6.0
description	String	The detailed description of the backup.	2.6.0
type	String	The type of the volume.	2.6.0
state	String	The status of the backup.	2.6.0
status	String	The availability status of the backup.	2.6.0
size	Long	The size of the backup.	2.6.0
metadata	String	The metadata of the backup.	2.6.0
createDate	Timestamp	The time when the backup was created.	2.6.0
lastOpDate	Timestamp	The time when the backup was last modified.	2.6.0
backupStorageRefs	List	See backupStorageRefs	2.6.0

#backupStorageRefs

Name	Type	Description	Starting Version
volumeBackupUuid	String	The UUID of the volume backup.	2.6.0
backupStorageUuid	String	The UUID of the backup storage.	2.6.0
installPath	String	The storage path of the backup.	2.6.0
status	String	The status of the backup in the backup storage.	2.6.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the backup was created.	2.6.0
lastOpDate	Timestamp	The time when the backup was last modified.	2.6.0

SDK Sample

Java SDK

```
CreateVolumeBackupAction action = new CreateVolumeBackupAction();
action.volumeUuid = "ec7196ba2d993236aceddd9b31f5d19b";
action.backupStorageUuid = "1c4b0a3a24533c4faa9b156a0ef98fdf";
action.name = "backup-1";
action.description = "a critical volume backup";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVolumeBackupAction.Result res = action.call();
```

Python SDK

```
CreateVolumeBackupAction action = CreateVolumeBackupAction()
action.volumeUuid = "ec7196ba2d993236aceddd9b31f5d19b"
action.backupStorageUuid = "1c4b0a3a24533c4faa9b156a0ef98fdf"
action.name = "backup-1"
action.description = "a critical volume backup"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVolumeBackupAction.Result res = action.call()
```

6.2.1.1.2 DeleteVolumeBackup

API Request

URLs

```
DELETE zstack/v1/volume-backups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/volume-backups/
e95ef48f7cc6396f8e025fd5e38ebccb
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the volume backup.		2.6.0
backupStorageUuids	List	url	Optional. The UUIDs of the backup storage.		2.6.0
deleteMode	String	url	Optional. The mode under which the backup is deleted.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0
handleDependency	boolean	body	Optional. whether to handle dependency when deleting volume backup.		4.7.11

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVolumeBackupAction action = new DeleteVolumeBackupAction();
```

```

action.uuid = "e95ef48f7cc6396f8e025fd5e38ebccb";
action.backupStorageUuids = asList("6cfa909085e13160825db03bcd664ff2");
action.handleDependency = false;
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVolumeBackupAction.Result res = action.call();

```

Python SDK

```

DeleteVolumeBackupAction action = DeleteVolumeBackupAction()
action.uuid = "e95ef48f7cc6396f8e025fd5e38ebccb"
action.backupStorageUuids = ["6cfa909085e13160825db03bcd664ff2"]
action.handleDependency = false
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteVolumeBackupAction.Result res = action.call()

```

6.2.1.1.3 QueryVolumeBackup

API Request

URLs

```

GET zstack/v1/volume-backups
GET zstack/v1/volume-backups/{uuid}

```

Headers

```

Authorization: OAuth the-session-uuid

```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/volume-backups?
q=uuid=12d9162338f637c2855f58b63a7f19d5

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/volume-
backups/09de4206bb143d75aad644c88cddb364

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVolumeBackup**, and pressing the Tab key.

API Response

Sample Response

```

{
  "inventories": [

```

```
{
  "uuid": "aaf2564bbbed3eab97b7ecff370d8ff1",
  "volumeUuid": "92dcb8125f7b3187887e2abc8532b749",
  "name": "backup-2",
  "description": "my backup",
  "size": 1310720.0
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventories	List	See inventories	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume backup.	2.6.0
volumeUuid	String	The UUID of the volume.	2.6.0
name	String	The name of the backup.	2.6.0
description	String	The detailed description of the backup.	2.6.0
type	String	The type of the volume.	2.6.0
state	String	The status of the backup.	2.6.0
status	String	The availability status of the backup.	2.6.0
size	Long	The size of the backup.	2.6.0
metadata	String	The metadata of the backup.	2.6.0
createDate	Timestamp	The time when the backup was created.	2.6.0
lastOpDate	Timestamp	The time when the backup was last modified.	2.6.0
backupStorageRefs	List	See backupStorageRefs	2.6.0

#backupStorageRefs

Name	Type	Description	Starting Version
volumeBackupUuid	String	The UUID of the volume backup.	2.6.0
backupStorageUuid	String	The UUID of the backup storage.	2.6.0
installPath	String	The storage path of the backup.	2.6.0

Name	Type	Description	Starting Version
status	String	The status of the backup in the backup storage.	2.6.0
createDate	Timestamp	The time when the backup was created.	2.6.0
lastOpDate	Timestamp	The time when the backup was last modified.	2.6.0

SDK Sample

Java SDK

```
QueryVolumeBackupAction action = new QueryVolumeBackupAction();
action.conditions = asList("uuid=031d210f004e31529b7ae7beb73c8bb9");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryVolumeBackupAction.Result res = action.call();
```

Python SDK

```
QueryVolumeBackupAction action = QueryVolumeBackupAction()
action.conditions = ["uuid=4ec7c280156635b1a8164d6c9e455b41"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVolumeBackupAction.Result res = action.call()
```

6.2.1.1.4 CreateDataVolumeTemplateFromVolumeBackup

API Request

URLs

```
POST zstack/v1/images/data-volume-templates/from/volume-template/
{backupUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "backupStorageUuid": "030d573ce5f33ab1b53524f8bef1c2cd",
    "name": "template",
    "description": "data template from volume backup",
    "system": false
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"backupStorageUuid":"030d573ce5f33ab1b53524f8bef1c2cd","name":"template","description":
"template from volume backup","system":false}}' http://
localhost:8080/zstack/v1/images/data-volume-templates/from/volume-
template/2832c8cc11303003ad248eac940ed06c
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
backupUuid	String	url	The UUID of the volume backup.		2.6.0
backupStorageUuid	String	body (contained in the params structure)	The UUID of the backup storage.		2.6.0
name	String	body (contained in the params structure)	The name of the volume image.		2.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the volume image.		2.6.0
guestOsType	String	body (contained in the params structure)	Optional. The type of the guest operating system.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
platform	String	body (contained in the params structure)	Optional. The platform type of the guest.	- Linux - Windows - Other - Paravirtualization - WindowsVirtio	2.6.0
system	boolean	body (contained in the params structure)	Optional. Specify whether to create a system image.		2.6.0
resourceUuid	String	body (contained in the params structure)	Optional. Specify a UUID for the image.		2.6.0
architecture	String	body (contained in the params structure)	Optional.	- x86_64 - aarch64 - mips64el	4.0.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "fb4415140ff4329f8b7b42f01f04cfdb",
    "name": "My Volume Template",
    "mediaType": "DataVolumeTemplate",
    "platform": "Linux",
    "format": "qcow2",
```

```

    "backupStorageRefs": [
      {
        "id": 0.0,
        "imageUuid": "fb4415140ff4329f8b7b42f01f04cfdb",
        "backupStorageUuid": "ccc3d837be813722bfa59e0a259ada0e",
        "installPath": "zstore://mydata/0cd599ec159249489475112a058bb9
3a",
        "status": "Ready"
      }
    ]
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	ImageInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.6.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume image.	2.6.0
name	String	The name of the volume image.	2.6.0
description	String	The detailed description of the volume image.	2.6.0
state	String		2.6.0
status	String		2.6.0
size	Long		2.6.0
actualSize	Long		2.6.0
md5Sum	String		2.6.0
url	String		2.6.0
mediaType	String		2.6.0
guestOsType	String		2.6.0
type	String		2.6.0
platform	String		2.6.0
format	String		2.6.0
system	Boolean		2.6.0
createDate	Timestamp	The time when the volume image was created.	2.6.0
lastOpDate	Timestamp	The time when the volume image was last modified.	2.6.0
backupStorageRefs	List	See backupStorageRefs	2.6.0

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The UUID of the volume image.	2.6.0
backupStorageUuid	String	The UUID of the backup storage.	2.6.0
installPath	String		2.6.0
exportUrl	String		2.6.0
exportMd5Sum	String		2.6.0
status	String		2.6.0
createDate	Timestamp	The time when the volume image was created.	2.6.0
lastOpDate	Timestamp	The time when the volume image was last modified.	2.6.0

SDK Sample

Java SDK

```
CreateDataVolumeTemplateFromVolumeBackupAction action = new CreateData
VolumeTemplateFromVolumeBackupAction();
action.backupUuid = "2832c8cc11303003ad248eac940ed06c";
action.backupStorageUuid = "030d573ce5f33ab1b53524f8bef1c2cd";
action.name = "template";
action.description = "data template from volume backup";
action.system = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateDataVolumeTemplateFromVolumeBackupAction.Result res = action.
call();
```

Python SDK

```
CreateDataVolumeTemplateFromVolumeBackupAction action = CreateData
VolumeTemplateFromVolumeBackupAction()
action.backupUuid = "2832c8cc11303003ad248eac940ed06c"
action.backupStorageUuid = "030d573ce5f33ab1b53524f8bef1c2cd"
action.name = "template"
action.description = "data template from volume backup"
action.system = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateDataVolumeTemplateFromVolumeBackupAction.Result res = action.  
call()
```

6.2.1.1.5 CreateRootVolumeTemplateFromVolumeBackup

API Request

URLs

```
POST zstack/v1/images/root-volume-templates/from/volume-template/  
{backupUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "params": {  
    "backupStorageUuid": "9681bf8631a133ccb84fc5cf6ff7aaa6",  
    "name": "template",  
    "description": "root template from volume backup",  
    "system": false  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X POST -d '{"params":  
{"backupStorageUuid":"9681bf8631a133ccb84fc5cf6ff7aaa6","name":"template","descri  
template from volume backup","system":false}}' http://  
localhost:8080/zstack/v1/images/root-volume-templates/from/volume-  
template/84eccd458028338d8f5eb72efdc6f8a7
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
backupUuid	String	url	The UUID of the volume backup.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	body (contained in the params structure)	The UUID of the backup storage.		2.6.0
name	String	body (contained in the params structure)	The name of the root volume image.		2.6.0
description	String	body (contained in the params structure)	Optional. The detailed description of the image.		2.6.0
guestOsType	String	body (contained in the params structure)	Optional. The type of the guest operating system.		2.6.0
platform	String	body (contained in the params structure)	Optional. The platform type of the guest.	- Linux - Windows - Other - Paravirtualization - WindowsVirtualio	2.6.0
system	boolean	body (contained in the params structure)	Optional. Specify whether to create a system image.		2.6.0
resourceUuid	String	body (contained in the params structure)	Optional. Specify a UUID for the image.		2.6.0
architecture	String	body (contained in the params structure)	Optional.	- x86_64 - aarch64 - mips64el	4.0.0

Name	Type	Location	Description	Optional Value	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The tag UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "e2b2695d55243c2997b5dc6165fffa83",
    "name": "My Volume Template",
    "mediaType": "RootVolumeTemplate",
    "platform": "Linux",
    "format": "qcow2",
    "backupStorageRefs": [
      {
        "id": 0.0,
        "imageUuid": "e2b2695d55243c2997b5dc6165fffa83",
        "backupStorageUuid": "4ed18086e5593b86932436d02f575213",
        "installPath": "zstore://centos/0cd599ec519249489475112a058bb93a",
        "status": "Ready"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	ImageInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the root volume image.	2.6.0
name	String	The name of the image.	2.6.0
description	String	The detailed description of the image.	2.6.0
state	String	The state of the image.	4.0.0
status	String	The readiness of the image.	4.0.0
size	Long	The size of the image.	4.0.0

Name	Type	Description	Starting Version
actualSize	Long	The actual storage space used by the image.	4.0.0
md5Sum	String	The MD5 value of the image.	4.0.0
url	String	The URL of the image.	4.0.0
mediaType	String	The type of the image.	4.0.0
guestOsType	String	The type of the guest OS.	4.0.0
type	String	The interval used field.	4.0.0
platform	String	The system platform of the image.	4.0.0
format	String	The format of the image, for example, raw.	4.0.0
system	Boolean	Specifies whether the image is a system image.	4.0.0
createDate	Timestamp	The time when the image was created.	2.6.0
lastOpDate	Timestamp	The time when the image was last modified.	2.6.0
backupStorageRefs	List	See backupStorageRefs	2.6.0

#backupStorageRefs

Name	Type	Description	Starting Version
imageUuid	String	The UUID of the root volume image.	2.6.0
backupStorageUuid	String	The UUID of the backup storage.	2.6.0
installPath	String	The installation path of the image on the backup storage.	4.0.0

Name	Type	Description	Starting Version
exportUrl	String	The exported URL of the image.	4.0.0
exportMd5Sum	String	The MD5 value of the exported image.	4.0.0
status	String	The readiness of the image.	4.0.0
createDate	Timestamp	The time when the image was created.	2.6.0
lastOpDate	Timestamp	The time when the image was last modified.	2.6.0

SDK Sample

Java SDK

```
CreateRootVolumeTemplateFromVolumeBackupAction action = new CreateRootVolumeTemplateFromVolumeBackupAction();
action.backupUuid = "84eccd458028338d8f5eb72efdc6f8a7";
action.backupStorageUuid = "9681bf8631a133ccb84fc5cf6ff7aaa6";
action.name = "template";
action.description = "root template from volume backup";
action.system = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateRootVolumeTemplateFromVolumeBackupAction.Result res = action.call();
```

Python SDK

```
CreateRootVolumeTemplateFromVolumeBackupAction action = CreateRootVolumeTemplateFromVolumeBackupAction()
action.backupUuid = "84eccd458028338d8f5eb72efdc6f8a7"
action.backupStorageUuid = "9681bf8631a133ccb84fc5cf6ff7aaa6"
action.name = "template"
action.description = "root template from volume backup"
action.system = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateRootVolumeTemplateFromVolumeBackupAction.Result res = action.  
call()
```

6.2.1.1.6 SyncVolumeBackup

API Request

URLs

```
PUT zstack/v1/volume-backups/imageStore/{imageStoreUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "syncVolumeBackup": {},  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X PUT -d '{"syncVolumeBackup":{}}' http://localhost:8080/zstack/v1/  
volume-backups/imageStore/d84c15efe2e941e38d090299bb5b498c/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
imageStore Uuid	String	url	The UUID of the backup storage.		3.5.0
systemTags	List	body			3.5.0
userTags	List	body			3.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SyncVolumeBackupAction action = new SyncVolumeBackupAction();
action.imageStoreUuid = "90658f04b39d40369593a7e56ab62e15";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SyncVolumeBackupAction.Result res = action.call();
```

Python SDK

```
SyncVolumeBackupAction action = SyncVolumeBackupAction()
action.imageStoreUuid = "91570173248a40d7a02e3905e50c7ad6"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SyncVolumeBackupAction.Result res = action.call()
```

6.2.1.1.7 RevertVolumeFromVolumeBackup

API Request

URLs

```
PUT zstack/v1/volume-backups/{uuid}/actions?卷备份uuid={volume backup
uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "revertVolumeFromVolumeBackup": {
    "backupStrokeUuid": "7031eaf192333f52a0cd889327d5a0de"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"revertVolumeFromVolumeBackup":
{"backupStorageUuid":"7031eaf192333f52a0cd889327d5a0de"}}'
http://localhost:8080/zstack/v1/volume-backups/
b3f89ba2d4173bc5864d1b0d19e93f22/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
卷备份uuid	String	url	The UUID of the volume backup.		2.6.0
backupStorageUuid	String	body (contained in the revertVolumeFromVolumeBackup structure)	Optional. The UUID of the backup storage.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The user tags.		2.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
RevertVolumeFromVolumeBackupAction action = new RevertVolumeFromVolumeBackupAction();
action.uuid = "b3f89ba2d4173bc5864d1b0d19e93f22";
action.backupStrokeUuid = "7031eaf192333f52a0cd889327d5a0de";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RevertVolumeFromVolumeBackupAction.Result res = action.call();
```

Python SDK

```
RevertVolumeFromVolumeBackupAction action = RevertVolumeFromVolumeBackupAction()
action.uuid = "b3f89ba2d4173bc5864d1b0d19e93f22"
action.backupStrokeUuid = "7031eaf192333f52a0cd889327d5a0de"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RevertVolumeFromVolumeBackupAction.Result res = action.call()
```

6.2.1.1.8 RecoverBackupFromImageStoreBackupStorage

API Request

URLs

```
PUT zstack/v1/volume-backups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "recoverBackupFromImageStoreBackupStorage": {
    "srcBackupStorageUuid": "cdd6242179f037c3a2c4cd1d17678f36",
    "dstBackupStorageUuid": "eebba83336ac34938e5a6e6db30d5eb8"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"recoverBackupFromImageStoreBackupStorage":
{"srcBackupStorageUuid":"cdd6242179f037c3a2c4cd1d17678f36","dstBackupStorageUuid":
http://localhost:8080/zstack/v1/volume-
backups/4c047b04165e3c8ca2b4859ddf41d882/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the volume backup.		2.6.0
srcBackupStorageUuid	String	body (contained in the recoverBackupFromImageStoreBackupStorage structure)	The UUID of the source backup storage.		2.6.0
dstBackupStorageUuid	String	body (contained in the recoverBackupFromImageStoreBackupStorage structure)	The UUID of the destination backup storage.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0
userTags	List	body	Optional. The system tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "db84847f4bd13c3399a45241a722ce80",
    "volumeUuid": "b91250390732348689211459223892f0",
    "name": "Backup-1",
    "description": "volume backup",
    "size": 1.073741824E9,
```

```

    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	VolumeBack upInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume backup.	2.6.0
volumeUuid	String	The UUID of the volume.	2.6.0
name	String	The name of the volume backup.	2.6.0
description	String	The detailed description of the backup.	2.6.0
type	String	The type of the volume.	2.6.0
state	String	The status of the backup.	2.6.0
status	String	The availability status of the backup.	2.6.0
size	Long	The size of the backup.	2.6.0
metadata	String	The metadata of the backup.	2.6.0
createDate	Timestamp	The time when the backup was created.	2.6.0
lastOpDate	Timestamp	The time when the backup was last modified.	2.6.0
backupStorageRefs	List	See backupStorageRefs	2.6.0

#backupStorageRefs

Name	Type	Description	Starting Version
volumeBackupUuid	String	The UUID of the volume backup.	2.6.0
backupStorageUuid	String	The UUID of the backup storage.	2.6.0
installPath	String	The storage path of the backup.	2.6.0

Name	Type	Description	Starting Version
status	String	The status of the backup in the backup storage.	2.6.0
createDate	Timestamp	The time when the backup was created.	2.6.0
lastOpDate	Timestamp	The time when the backup was last modified.	2.6.0

SDK Sample

Java SDK

```
RecoverBackupFromImageStoreBackupStorageAction action = new RecoverBackupFromImageStoreBackupStorageAction();
action.uuid = "4c047b04165e3c8ca2b4859ddf41d882";
action.srcBackupStorageUuid = "cdd6242179f037c3a2c4cd1d17678f36";
action.dstBackupStorageUuid = "eebba83336ac34938e5a6e6db30d5eb8";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RecoverBackupFromImageStoreBackupStorageAction.Result res = action.call();
```

Python SDK

```
RecoverBackupFromImageStoreBackupStorageAction action = RecoverBackupFromImageStoreBackupStorageAction()
action.uuid = "4c047b04165e3c8ca2b4859ddf41d882"
action.srcBackupStorageUuid = "cdd6242179f037c3a2c4cd1d17678f36"
action.dstBackupStorageUuid = "eebba83336ac34938e5a6e6db30d5eb8"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RecoverBackupFromImageStoreBackupStorageAction.Result res = action.call()
```

6.2.1.1.9 SyncBackupFromImageStoreBackupStorage

API Request

URLs

```
PUT zstack/v1/volume-backups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncBackupFromImageStoreBackupStorage": {
```

```

    "srcBackupStorageUuid": "8d41621b44b43562bfe415b1f4eae44c",
    "dstBackupStorageUuid": "1cb923c4982d3ca397a2dca63aa0d121"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncBackupFromImageStoreBackupStorage":
{"srcBackupStorageUuid": "8d41621b44b43562bfe415b1f4eae44c", "dstBackupStorageUuid":
http://localhost:8080/zstack/v1/volume-backups/
d10c8a92398a387ba00952957aeeb99c/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the volume backup.		2.6.0
srcBackupStorageUuid	String	body (contained in the syncBackupFromImageStoreBackupStorage structure)	The local backup storage.		2.6.0
dstBackupStorageUuid	String	body (contained in the syncBackupFromImageStoreBackupStorage structure)	The remote backup storage.		2.6.0
systemTags	List	body	Optional. The system tags.		2.6.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		2.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b27cfbaf301433a9b81aedcc47460343",
    "volumeUuid": "5058318082ae3e5abf1bd05608f8c6d2",
    "name": "Backup-1",
    "description": "volume backup",
    "size": 1.073741824E9,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	2.6.0
inventory	VolumeBackupInventory	See inventory	2.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.6.0
description	String	The brief description of the error.	2.6.0
details	String	The details about the error.	2.6.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	2.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume backup.	2.6.0
volumeUuid	String	The UUID of the volume.	2.6.0
name	String	The name of the volume backup.	2.6.0
description	String	The detailed description of the backup.	2.6.0
type	String	The type of the volume.	2.6.0
state	String	The status of the backup.	2.6.0
status	String	The availability status of the backup.	2.6.0
size	Long	The size of the backup.	2.6.0
metadata	String	The metadata of the backup.	2.6.0
createDate	Timestamp	The time when the backup was created.	2.6.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the backup was last modified.	2.6.0
backupStorageRefs	List	See backupStorageRefs	2.6.0

#backupStorageRefs

Name	Type	Description	Starting Version
volumeBackupUuid	String	The UUID of the volume backup.	2.6.0
backupStorageUuid	String	The UUID of the backup storage.	2.6.0
installPath	String	The storage path of the backup.	2.6.0
status	String	The status of the backup in the backup storage.	2.6.0
createDate	Timestamp	The time when the backup was created.	2.6.0
lastOpDate	Timestamp	The time when the backup was last modified.	2.6.0

SDK Sample

Java SDK

```
SyncBackupFromImageStoreBackupStorageAction action = new SyncBackupFromImageStoreBackupStorageAction();
action.uuid = "d10c8a92398a387ba00952957aeeb99c";
action.srcBackupStorageUuid = "8d41621b44b43562bfe415b1f4eae44c";
action.dstBackupStorageUuid = "1cb923c4982d3ca397a2dca63aa0d121";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SyncBackupFromImageStoreBackupStorageAction.Result res = action.call();
```

Python SDK

```
SyncBackupFromImageStoreBackupStorageAction action = SyncBackupFromImageStoreBackupStorageAction()
action.uuid = "d10c8a92398a387ba00952957aeeb99c"
action.srcBackupStorageUuid = "8d41621b44b43562bfe415b1f4eae44c"
```

```

action.dstBackupStorageUuid = "1cb923c4982d3ca397a2dca63aa0d121"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SyncBackupFromImageStoreBackupStorageActionResult res = action.call()

```

6.2.1.1.10 CreateVmBackup

API Request

URLs

```
POST zstack/v1/volumes/{rootVolumeUuid}/vm-backups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "backupStorageUuid": "fc50c1ece4753c1981e3e3f65a151e0e",
    "name": "backup-1",
    "description": "a critical volume backup"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"backupStorageUuid":"fc50c1ece4753c1981e3e3f65a151e0e", "name":"backup-1", "description": "a critical volume backup"}}' http://localhost:8080/zstack/v1/volumes/aa6fad9b71af3785a9fdec200bab3ee8/vm-backups

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
rootVolumeUuid	String	url	The UUID of the root volume.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	body (contained in the params structure)	The UUID of the backup storage.		3.0.0
name	String	body (contained in the params structure)	The name of the VM backup.		3.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the backup.		3.0.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.0.0
volumeReadBandwidth	Long	body (contained in the params structure)	Optional. The maximum speed at which data is read from the root volume.		3.1.0
volumeWriteBandwidth	Long	body (contained in the params structure)	Optional. The maximum speed at which data is written to the root volume.		3.1.0
networkReadBandwidth	Long	body (contained in the params structure)	Optional. The network bandwidth for data reads.		3.1.0
networkWriteBandwidth	Long	body (contained in the params structure)	Optional. The network bandwidth for data writes.		3.1.0
systemTags	List	body	Optional.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional.		3.0.0

**Note:**

- When you create a VM backup in ZStack Cloud, the data of the VM instance in a host will be backed up to an ImageStore backup storage. The data exchange in this process will use the backup network. Note that you can add the **backupnetwork** option to **SystemTags**.
 - Format of the **backupnetwork** option: `backup::network::cidr::CIDR`
 - Example: `backup::network::cidr::10.0.0.0/8`
- When you create a VM backup in ZStack Cloud, you can specify how to back up the VM instance data to the backup storage by adding the **fsInfo** option to **SystemTags**.
 - Format of the **fsInfo** option: `fsInfo::type::$TYPE::url::$URL::options::$OPTIONS`
 - Example: `fsInfo::type::nfs::url::172.32.1.119:/nas/nfs2::options::nolock,vers=3,rsiz=32768,wsiz=32768`
- When you create a VM backup in ZStack Cloud, you can configure the concurrency level for the VM backup by adding the **volumeLiveBackup** option to **SystemTags**.
 - Format of the **volumeLiveBackup** option: `volumeLiveBackup::parallelismDegree::$NUMBER`
 - Example: `volumeLiveBackup::parallelismDegree::1`

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "785edb93bb1b3a31857dac1e69cc8392",
      "volumeUuid": "2ae6b881bb1239cd907d48993e86a2e8",
      "name": "Root-Volume-Backup-1",
      "description": "volume backup",
      "size": 1.073741824E9,
      "groupUuid": "2f7c0a5bb86430e8a5ac48312172d70d",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    {
      "uuid": "3084eea905f4311b9d484bfe97142bdf",
      "volumeUuid": "f6c7d5276c873eba8accddd4a09a1ee6",

```

```

    "name": "Data-Volume-Backup-1",
    "description": "volume backup",
    "size": 2.147483648E9,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.0.0
inventories	List	See inventories	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the VM backup.	3.0.0
volumeUuid	String	The UUID of the root volume.	3.0.0
name	String	The name of the backup.	3.0.0
description	String	The detailed description of the backup.	3.0.0
type	String	The type of the root volume.	3.0.0
state	String	The status of the backup.	3.0.0
status	String	The availability status of the backup.	3.0.0
size	Long	The size of the backup.	3.0.0
metadata	String	The metadata of the backup.	3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0
backupStorageRefs	List	See backupStorageRefs	3.0.0

#backupStorageRefs

Name	Type	Description	Starting Version
volumeBackupUuid	String	The UUID of the VM backup.	3.0.0
backupStorageUuid	String	The UUID of the backup storage.	3.0.0
installPath	String	The storage path of the backup.	3.0.0

Name	Type	Description	Starting Version
status	String	The status of the backup in the backup storage.	3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0

SDK Sample

Java SDK

```
CreateVmBackupAction action = new CreateVmBackupAction();
action.rootVolumeUuid = "aa6fad9b71af3785a9fdec200bab3ee8";
action.backupStorageUuid = "fc50c1ece4753c1981e3e3f65a151e0e";
action.name = "backup-1";
action.description = "a critical volume backup";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmBackupAction.Result res = action.call();
```

Python SDK

```
CreateVmBackupAction action = CreateVmBackupAction()
action.rootVolumeUuid = "aa6fad9b71af3785a9fdec200bab3ee8"
action.backupStorageUuid = "fc50c1ece4753c1981e3e3f65a151e0e"
action.name = "backup-1"
action.description = "a critical volume backup"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmBackupAction.Result res = action.call()
```

6.2.1.1.11 DeleteVmBackup

API Request

URLs

```
DELETE zstack/v1/vm-backups/{groupUuid}?
backupStorageUuids={backupStorageUuids}&deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/
vm-backups/92046c016d7c3af7bdd4a5077fb91450?
backupStorageUuids=255fc896605f3237a22940fa92d8670b&deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
groupUuid	String	url	The UUID of the backup group.		3.0.0
backupStorageUuids	List	url	Optional. The UUIDs of backup storage.		3.0.0
deleteMode	String	url	Optional.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteVmBackupAction action = new DeleteVmBackupAction();
action.groupUuid = "92046c016d7c3af7bdd4a5077fb91450";
action.backupStorageUuids = asList("255fc896605f3237a22940fa92d8670b");
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteVmBackupAction.Result res = action.call();
```

Python SDK

```
DeleteVmBackupAction action = DeleteVmBackupAction()
action.groupUuid = "92046c016d7c3af7bdd4a5077fb91450"
```

```

action.backupStorageUuids = [255fc896605f3237a22940fa92d8670b]
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteVmBackupAction.Result res = action.call()

```

6.2.1.1.12 SyncVmBackup

API Request

URLs

```
PUT zstack/v1/vm-backups/imageStore/{imageStoreUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "syncVmBackup": {},
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncVmBackup":{}}' http://localhost:8080/zstack/v1/vm-backups/imageStore/087b41055fbc4875aef622142cbe5ac3/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
imageStore Uuid	String	url	The UUID of the backup storage.		3.5.0
systemTags	List	body	Optional.		3.5.0
userTags	List	body	Optional.		3.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SyncVmBackupAction action = new SyncVmBackupAction();
action.imageStoreUuid = "7c3e52e35de449c9abc1343c83b93cd5";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SyncVmBackupAction.Result res = action.call();
```

Python SDK

```
SyncVmBackupAction action = SyncVmBackupAction()
action.imageStoreUuid = "07270eb0ae25428586b224c33e88e485"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SyncVmBackupAction.Result res = action.call()
```

6.2.1.1.13 CreateVmFromVmBackup

API Request

URLs

```
POST zstack/v1/vm-instances/from/vm-backups/{groupUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "vm1",
    "instanceOfferingUuid": "7d608371542b3ab5960823c1b57bfa0c",
    "l3NetworkUuids": [
      "6ab4d28582d232708ed2912c1c3eb1ef"
    ],
    "clusterUuid": "84a216b8b0323b87bf9d2b32abc635a3",
    "description": "this is a vm",
    "strategy": "InstantStart"
  },
}
```

```
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X POST -d '{"params":
{"name": "vm1", "instanceOfferingUuid": "7d608371542b3ab5960823c1b57bfa0c", "l3Network
["6ab4d28582d232708ed2912c1c3eb1ef"], "clusterUuid": "84a216b8b0323b87bf9d2b32abc63
is a vm", "strategy": "InstantStart"}}' http://localhost:8080/zstack/
v1/vm-instances/from/vm-backups/04ac2beae2b03def881dea125299498c
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the VM.		3.0.0
groupUuid	String	url	The UUID of the VM backup group.		3.0.0
backupStorageUuid	String	body (contained in the params structure)	Optional. The UUID of the backup storage.		0.6
instanceOfferingUuid	String	body (contained in the params structure)	The UUID of the instance offering.		3.0.0
l3NetworkUuids	List	body (contained in the params structure)	Optional. The UUIDs of L3 networks.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
vmNicParams	String	body (contained in the params structure)	Optional. The information of the vmNic		4.7.0
type	String	body (contained in the params structure)	Optional. The type of the VM instance.	- UserVm - ApplianceVm	3.0.0
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID.		3.0.0
clusterUuid	String	body (contained in the params structure)	Optional. The cluster UUID.		3.0.0
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		3.0.0
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	Optional. The primary storage used to host the root volume.		3.0.0
primaryStorageUuidForDataVolume	String	body (contained in the params structure)	Optional. The primary storage used to host data volumes.		3.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the VM.		3.0.0
rootVolumeSystemTags	List	body (contained in	Optional. The system tags		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	of the root volume.		
dataVolumeSystemTags	List	body (contained in the params structure)	Optional. The system tags of the data volume.		3.0.0
defaultL3NetworkUuid	String	body (contained in the params structure)	The UUID of the L3 network .		3.0.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0
userTags	List	body	Optional. The user tags.		3.0.0
tagUuids	List	body (contained in the params structure)	Optional. The tagUuids.		3.4.0
strategy	String	body (contained in the params structure)	Optional. The strategy to create vms.	- InstantStart - JustCreate - CreateStopped	5.1.0

**Note:**

- When you create a VM instance from a VM backup, you can specify the volume provisioning strategy by adding the **volumeProvisioningStrategy** option to **SystemTags**. The SystemTag is passed by using the **rootVolumeSystemTags** parameter.
- Format of the **volumeProvisioningStrategy** option: `volumeProvisioningStrategy::ThinProvisioning`, `volumeProvisioningStrategy::ThickProvisioning`

- Example: `volumeProvisioningStrategy::ThinProvisioning`, `volumeProvisioningStrategy::ThickProvisioning`

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a1c07d683f693f6e9f2d7f9a499c7840",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "1e48b41ec4b63660b38a72d271c0164b",
    "clusterUuid": "f29498f04b1e3c319bdaeb6b3f8259f3",
    "imageUuid": "5c07704333c532e8b402b6b3ddb89315",
    "hostUuid": "e18cf66eedb3306686a1d4685bbb63af",
    "lastHostUuid": "4834161c409a34b6a84e40d71d85f714",
    "instanceOfferingUuid": "f53ad9f147203b499dfbd93ce41b7a8e",
    "rootVolumeUuid": "24b9fcb69f123ad6b3ddfffed96d2882",
    "platform": "Linux",
    "defaultL3NetworkUuid": "d50554f493153be78f6740e18e598046",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8589934592,
    "cpuNum": 1,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
      {
        "uuid": "9856d36e40783d669b9e4f1de41d1a17",
        "vmInstanceUuid": "a1c07d683f693f6e9f2d7f9a499c7840",
        "usedIpUuid": "be02105c2a223492a91fb09ba664ecb1",
        "l3NetworkUuid": "d50554f493153be78f6740e18e598046",
        "ip": "192.168.1.10",
        "mac": "00:0c:29:bd:99:fc",
        "netmask": "255.255.255.0",
        "gateway": "192.168.1.1",
        "deviceId": 0,
        "state": "enable",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ],
    "allVolumes": [
      {
        "uuid": "24b9fcb69f123ad6b3ddfffed96d2882",
        "name": "Root-Volume-For-VM-a1c07d683f693f6e9f2d7f9a499c7840",
        "primaryStorageUuid": "ae47a25fd7cf3a349035d01060a8a224",
        "vmInstanceUuid": "a1c07d683f693f6e9f2d7f9a499c7840",
        "rootImageUuid": "5c07704333c532e8b402b6b3ddb89315",
        "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-24b9fcb69f123ad6b3ddfffed96d2882/24b9fcb69f123ad6b3ddfffed96d2882.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 107374182400,
        "actualSize": 21474836480,
        "deviceId": 0,

```

```

    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
]
}

```

Name	Type	Description	Starting Version
success	boolean		3.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.0.0
inventory	VmInstanceInventory	See inventory	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the VM instance.	3.0.0
name	String	The name of the VM instance.	3.0.0
description	String	The detailed description of the VM instance.	3.0.0
zoneUuid	String	The zone UUID.	3.0.0
clusterUuid	String	The cluster UUID.	3.0.0
imageUuid	String	The image UUID.	3.0.0
hostUuid	String	The host UUID.	3.0.0
lastHostUuid	String		3.0.0
instanceOfferingUuid	String	The UUID of the instance offering.	3.0.0
rootVolumeUuid	String	The UUID of the root volume.	3.0.0
platform	String		3.0.0
architecture	String		0.6
defaultL3NetworkUuid	String		3.0.0
type	String		3.0.0
hypervisorType	String		3.0.0
memorySize	Long		3.0.0
cpuNum	Integer		3.0.0
cpuSpeed	Long		3.0.0
allocatorStrategy	String		3.0.0
createDate	Timestamp	The time when the VM instance was created.	3.0.0
lastOpDate	Timestamp	The time when the VM instance was last modified.	3.0.0
state	String		3.0.0

Name	Type	Description	Starting Version
guestOsType	String		4.1.2
vmNics	List	See vmNics	3.0.0
allVolumes	List	See allVolumes	3.0.0
vmCdRoms	List	See vmCdRoms	0.6

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the VM instance.	3.0.0
vmInstanceUuid	String	The UUID of the VM instance.	3.0.0
l3NetworkUuid	String	The UUID of the L3 network.	3.0.0
ip	String		3.0.0
mac	String		3.0.0
hypervisorType	String		4.7.13
netmask	String		3.0.0
gateway	String		3.0.0
metaData	String		3.0.0
ipVersion	Integer		4.7.13
driverType	String		4.7.13
internalName	String		4.7.13
deviceId	Integer		3.0.0
type	String		4.7.13
state	String	The state of the vmNics.	4.7.13
createDate	Timestamp	The time when the NIC was created.	3.0.0
lastOpDate	Timestamp	The time when the NIC was last modified.	3.0.0
usedIps	List	See usedIps	4.7.13

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume.	5.0.0
ipRangeUuid	String	The UUID of the ip range.	5.0.0
l3NetworkUuid	String	The UUID of the L3network.	5.0.0
ipVersion	Integer		5.0.0
ip	String		5.0.0
netmask	String		5.0.0
gateway	String		5.0.0
usedFor	String		5.0.0
ipInLong	long		5.0.0
vmNicUuid	String	The UUID of the vmNic.	5.0.0
createDate	Timestamp	The creation time.	5.0.0
lastOpDate	Timestamp	The last operation time .	5.0.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume.	3.0.0
name	String	The name of the volume.	3.0.0
description	String	The detailed description of the volume.	3.0.0
primaryStorageUuid	String	The UUID of the primary storage.	3.0.0
vmInstanceUuid	String	The UUID of the VM instance.	3.0.0
diskOfferingUuid	String	The UUID of the disk offering.	3.0.0

Name	Type	Description	Starting Version
rootImageUuid	String		3.0.0
installPath	String		3.0.0
type	String		3.0.0
format	String		3.0.0
size	Long		3.0.0
actualSize	Long		3.0.0
deviceId	Integer		3.0.0
state	String		3.0.0
status	String		3.0.0
createDate	Timestamp	The time when the volume was created.	3.0.0
lastOpDate	Timestamp	The time when the volume was last modified.	3.0.0
isShareable	Boolean		3.0.0
volumeQos	String		4.7.13
lastDetachDate	Timestamp		4.7.13
lastVmInstanceUuid	String		4.7.13

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume.	4.7.13
vmInstanceUuid	String	The UUID of the VM instance.	4.7.13
deviceId	Integer		4.7.13
isoUuid	String		4.7.13
isoInstallPath	String		4.7.13
name	String	The name of the volume.	4.7.13
description	String	The detailed description of the volume.	4.7.13

Name	Type	Description	Starting Version
createDate	Timestamp	The creation time.	4.7.13
lastOpDate	Timestamp	The last operation time .	4.7.13

SDK Sample

Java SDK

```
CreateVmFromVmBackupAction action = new CreateVmFromVmBackupAction();
action.name = "vm1";
action.groupUuid = "04ac2beae2b03def881dea125299498c";
action.instanceOfferingUuid = "7d608371542b3ab5960823c1b57bfa0c";
action.l3NetworkUuids = asList("6ab4d28582d232708ed2912c1c3eb1ef");
action.clusterUuid = "84a216b8b0323b87bf9d2b32abc635a3";
action.description = "this is a vm";
action.strategy = "InstantStart";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmFromVmBackupAction.Result res = action.call();
```

Python SDK

```
CreateVmFromVmBackupAction action = CreateVmFromVmBackupAction()
action.name = "vm1"
action.groupUuid = "04ac2beae2b03def881dea125299498c"
action.instanceOfferingUuid = "7d608371542b3ab5960823c1b57bfa0c"
action.l3NetworkUuids = ["6ab4d28582d232708ed2912c1c3eb1ef"]
action.clusterUuid = "84a216b8b0323b87bf9d2b32abc635a3"
action.description = "this is a vm"
action.strategy = "InstantStart"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmFromVmBackupAction.Result res = action.call()
```

6.2.1.1.14 CreateVmFromVolumeBackup

API Request

URLs

```
POST zstack/v1/vm-instances/from/vm-backup/{backupUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "vm1",
    "instanceOfferingUuid": "31d2057b670d3c32a6970e519b514f12",
    "l3NetworkUuids": [
```

```

    "87b522f02ef83627bcab5e427ba2d5e6"
  ],
  "clusterUuid": "255b14070a533fb5ad9a845d4c50508a",
  "description": "this is a vm",
  "strategy": "InstantStart"
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"vm1", "instanceOfferingUuid":"31d2057b670d3c32a6970e519b514f12", "l3Network
["87b522f02ef83627bcab5e427ba2d5e6"], "clusterUuid":"255b14070a533fb5ad9a845d4c505
is a vm", "strategy":"InstantStart"}}' http://localhost:8080/zstack/
v1/vm-instances/from/vm-backup/b3ecd20a4b523ff0b5a954a8579a1aeb

```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the params structure)	The VM instance name.		5.1.0
backupUuid	String	url	The backup UUID.		5.1.0
backupStorageUuid	String	body (contained in the params structure)	Optional. The backup storage UUID.		5.1.0
instanceOfferingUuid	String	body (contained in the params structure)	The instance offering UUID.		5.1.0
defaultL3NetworkUuid	String	body (contained in	Optional. The UUID of the		5.1.0

Name	Type	Location	Description	Valid Values	Starting Version
		the params structure)	default L3 network.		
l3NetworkUuids	List	body (contained in the params structure)	The L3 network UUID list.		5.1.0
type	String	body (contained in the params structure)	Optional. The VM instance type.	- UserVm - ApplianceVm	5.1.0
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID.		5.1.0
clusterUuid	String	body (contained in the params structure)	Optional. The cluster UUID.		5.1.0
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		5.1.0
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	Optional. The UUID of the primary storage which the root volume resides on.		5.1.0
description	String	body (contained in the params structure)	Optional. The description of the VM instance.		5.1.0
rootVolumeSystemTags	List	body (contained in the params structure)	Optional. The system tag of the root volume.		5.1.0

Name	Type	Location	Description	Valid Values	Starting Version
resourceUuid	String	body (contained in the params structure)	Optional.		5.1.0
systemTags	List	body (contained in the params structure)	Optional. The system tag.		5.1.0
userTags	List	body	Optional. The user tag.		5.1.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		5.1.0
strategy	String	body (contained in the params structure)	Optional. The VM creation strategy.	- InstantStart - JustCreate - CreateStopped	5.1.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0a2cbf2edacc399cb9a7e6b2fa14602d",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "1086a7491b8c3fb9ab12192dc0fab906",
    "clusterUuid": "3e368e7f98913ec6bb20d6cc969cf50a",
    "imageUuid": "2ceb7086482d3b42ab56b9daa6fb4d44",
    "hostUuid": "d81f8599fd033183ab2d4bcafce233cc",
    "lastHostUuid": "2d9fd9b480be3fdd9df46548d9d178d5",
    "instanceOfferingUuid": "feba03817e0e326d827ebdb436786bad",
    "rootVolumeUuid": "2f368d0d8b4734b7b58e1c5cb2ec27c6",
    "platform": "Linux",
    "defaultL3NetworkUuid": "ecebe1b81b18351dbdf304622e9ada80",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8589934592,
    "cpuNum": 1,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Running",
    "vmNics": [
```

```

    {
      "uuid": "da1e1002fa2b387bbe389ce3bf10ba92",
      "vmInstanceUuid": "0a2cbf2edacc399cb9a7e6b2fa14602d",
      "usedIpUuid": "e8c56c6711e83896acb7413183726c1c",
      "l3NetworkUuid": "ecebe1b81b18351dbdf304622e9ada80",
      "ip": "192.168.1.10",
      "mac": "00:0c:29:bd:99:fc",
      "netmask": "255.255.255.0",
      "gateway": "192.168.1.1",
      "deviceId": 0,
      "state": "enable",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    "allVolumes": [
      {
        "uuid": "2f368d0d8b4734b7b58e1c5cb2ec27c6",
        "name": "Root-Volume-For-VM-0a2cbf2edacc399cb9a7e6b2fa14602d",
        "primaryStorageUuid": "890196bf1b5a308da1c75eb61ff441a3",
        "vmInstanceUuid": "0a2cbf2edacc399cb9a7e6b2fa14602d",
        "rootImageUuid": "2ceb7086482d3b42ab56b9daa6fb4d44",
        "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff05c4780bf6d2fa65700f22e/vol-2f368d0d8b4734b7b58e1c5cb2ec27c6/2f368d0d8b4734b7b58e1c5cb2ec27c6.qcow2",
        "type": "Root",
        "format": "qcow2",
        "size": 107374182400,
        "actualSize": 21474836480,
        "deviceId": 0,
        "state": "Enabled",
        "status": "Ready",
        "createDate": "Nov 14, 2017 10:20:57 PM",
        "lastOpDate": "Nov 14, 2017 10:20:57 PM"
      }
    ]
  }
}

```

Name	Type	Description	Starting Version
success	boolean		5.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.1.0
inventory	VmInstanceInventory	See inventory	5.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	5.1.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	5.1.0
details	String	The details about the error.	5.1.0
elaboration	String	The reserved field. Default value: null.	5.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.0

#inventory

Name	Type	Description	起始版本
uuid	String	The VM instance UUID.	5.1.0
name	String	The VM instance name.	5.1.0
description	String	The VM instance description.	5.1.0
zoneUuid	String	The zone UUID.	5.1.0
clusterUuid	String	The cluster UUID.	5.1.0
imageUuid	String	The image UUID.	5.1.0
hostUuid	String	The host UUID.	5.1.0
lastHostUuid	String		5.1.0
instanceOfferingUuid	String	The instance offering UUID.	5.1.0

Name	Type	Description	起始版本
rootVolumeUuid	String	The root volume UUID	5.1.0
platform	String		5.1.0
architecture	String		5.1.0
defaultL3NetworkUuid	String		5.1.0
type	String		5.1.0
hypervisorType	String		5.1.0
memorySize	Long		5.1.0
cpuNum	Integer		5.1.0
cpuSpeed	Long		5.1.0
allocatorStrategy	String		5.1.0
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation time	5.1.0
state	String		5.1.0
guestOsType	String		4.1.2
vmNics	List	See vmNics	5.1.0
allVolumes	List	See allVolumes	5.1.0
vmCdRoms	List	See vmCdRoms	5.1.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the NIC of the VM instance.	5.1.0
vmInstanceUuid	String	The UUID of the VM instance.	5.1.0
l3NetworkUuid	String	The UUID of the L3 network.	5.1.0
ip	String		5.1.0
mac	String		5.1.0
hypervisorType	String		5.1.0

Name	Type	Description	Starting Version
netmask	String		5.1.0
gateway	String		5.1.0
metaData	String		5.1.0
ipVersion	Integer		5.1.0
driverType	String		5.1.0
internalName	String		5.1.0
deviceId	Integer		5.1.0
type	String		5.1.0
state	String	The state of the vmNics.	5.1.0
createDate	Timestamp	The time when the NIC was created.	5.1.0
lastOpDate	Timestamp	The time when the NIC was last modified.	5.1.0
usedIps	List	See usedIps	5.1.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume.	5.1.0
ipRangeUuid	String	The UUID of the ip range.	5.1.0
l3NetworkUuid	String	The UUID of the L3network.	5.1.0
ipVersion	Integer		5.1.0
ip	String		5.1.0
netmask	String		5.1.0
gateway	String		5.1.0
usedFor	String		5.1.0
ipInLong	long		5.1.0
vmNicUuid	String	The UUID of the vmNic.	5.1.0

Name	Type	Description	Starting Version
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation time .	5.1.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume.	5.1.0
name	String	The name of the volume.	5.1.0
description	String	The detailed description of the volume.	5.1.0
primaryStorageUuid	String	The UUID of the primary storage.	5.1.0
vmInstanceUuid	String	The UUID of the VM instance.	5.1.0
diskOfferingUuid	String	The UUID of the disk offering.	5.1.0
rootImageUuid	String		5.1.0
installPath	String		5.1.0
type	String		5.1.0
format	String		5.1.0
size	Long		5.1.0
actualSize	Long		5.1.0
deviceId	Integer		5.1.0
state	String		5.1.0
status	String		5.1.0
createDate	Timestamp	The time when the volume was created.	5.1.0
lastOpDate	Timestamp	The time when the volume was last modified.	5.1.0

Name	Type	Description	Starting Version
isShareable	Boolean		5.1.0
volumeQos	String		5.1.0
lastDetachDate	Timestamp		5.1.0
lastVmInstanceUuid	String		5.1.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume.	5.1.0
vmInstanceUuid	String	The UUID of the VM instance.	5.1.0
deviceId	Integer		5.1.0
isoUuid	String		5.1.0
isoInstallPath	String		5.1.0
name	String	The name of the volume.	5.1.0
description	String	The detailed description of the volume.	5.1.0
createDate	Timestamp	The creation time.	5.1.0
lastOpDate	Timestamp	The last operation time.	5.1.0

SDK示例

Java SDK

```

CreateVmFromVolumeBackupAction action = new CreateVmFromVolumeBackupAction();
action.name = "vm1";
action.backupUuid = "b3ecd20a4b523ff0b5a954a8579a1aeb";
action.instanceOfferingUuid = "31d2057b670d3c32a6970e519b514f12";
action.l3NetworkUuids = asList("87b522f02ef83627bcab5e427ba2d5e6");
action.clusterUuid = "255b14070a533fb5ad9a845d4c50508a";
action.description = "this is a vm";
action.strategy = "InstantStart";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
CreateVmFromVolumeBackupAction.Result res = action.call();
```

Python SDK

```
CreateVmFromVolumeBackupAction action = CreateVmFromVolumeBackupAction
()
action.name = "vm1"
action.backupUuid = "b3ecd20a4b523ff0b5a954a8579a1aeb"
action.instanceOfferingUuid = "31d2057b670d3c32a6970e519b514f12"
action.l3NetworkUuids = [87b522f02ef83627bcab5e427ba2d5e6]
action.clusterUuid = "255b14070a533fb5ad9a845d4c50508a"
action.description = "this is a vm"
action.strategy = "InstantStart"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmFromVolumeBackupAction.Result res = action.call()
```

6.2.1.1.15 RevertVmFromVmBackup

API Request

URLs

```
PUT zstack/v1/vm-backups/{groupUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "revertVmFromVmBackup": {
    "backupStorageUuid": "99afb6149155396c8ac1b6ab62badb9d"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"revertVmFromVmBackup":
{"backupStorageUuid":"99afb6149155396c8ac1b6ab62badb9d"}}' http://
localhost:8080/zstack/v1/vm-backups/39f4e3c4b7553dbc98b8c0ce0e8f82a1/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
groupUuid	String	url	The UUID of the backup group.		3.0.0
backupStorageUuid	String	body (contained in the revertVmFromVmBackup structure)	Optional. The UUID of the backup storage.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RevertVmFromVmBackupAction action = new RevertVmFromVmBackupAction();
action.groupUuid = "39f4e3c4b7553dbc98b8c0ce0e8f82a1";
action.backupStorageUuid = "99afb6149155396c8ac1b6ab62badb9d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RevertVmFromVmBackupAction.Result res = action.call();
```

Python SDK

```
RevertVmFromVmBackupAction action = RevertVmFromVmBackupAction()
action.groupUuid = "39f4e3c4b7553dbc98b8c0ce0e8f82a1"
action.backupStorageUuid = "99afb6149155396c8ac1b6ab62badb9d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RevertVmFromVmBackupAction.Result res = action.call()
```

6.2.1.1.16 RecoverVmBackupFromImageStoreBackupStorage)

API Request

URLs

```
PUT zstack/v1/vm-backups/{groupUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "recoverVmBackupFromImageStoreBackupStorage": {
    "srcBackupStorageUuid": "c63b10a638f6302caeabb7a806d087ad",
    "dstBackupStorageUuid": "7c7d653af1c531dfa04dabea3a085de5"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"recoverVmBackupFromImageStoreBackupStorage":
{"srcBackupStorageUuid":"c63b10a638f6302caeabb7a806d087ad","dstBackupStorageUuid":
http://localhost:8080/zstack/v1/vm-
backups/7913ce9f37973f4e8339aea4ff61584c/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
groupUuid	String	url	The UUID of the VM backup group.		3.0.0
srcBackupStorageUuid	String	body(contained in the recoverVmB	The local backup storage.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		ackupFromImageStoreBackupStorage structure)			
dstBackupStorageUuid	String	body(contained in the recoverVmBackupFromImageStoreBackupStorage structure)	The remote backup storage.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "5e28a0c27a8e352bbeedff94a0326f9e",
      "volumeUuid": "aa5fbdba3ffa352bbefaf913f56949f3",
      "name": "Root-Volume-Backup-1",
      "description": "volume backup",
      "size": 1.073741824E9,
      "groupUuid": "0150a8120f9334db8e9abc9d3f5eea08",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    {
      "uuid": "5924c90ddbc3784ae6e78b70ede90ce",
      "volumeUuid": "12d583f519f03a0593dfff7514af65be4",
      "name": "Data-Volume-Backup-1",
      "description": "volume backup",
      "size": 2.147483648E9,
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.0.0

Name	Type	Description	Starting Version
		more information, see error	
inventories	List	See inventories	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume backup.	3.0.0
volumeUuid	String	The UUID of the volume.	3.0.0
name	String	The name of the volume backup.	3.0.0

Name	Type	Description	Starting Version
description	String	The detailed description of the backup.	3.0.0
type	String	The type of the volume.	3.0.0
state	String	The status of the backup.	3.0.0
status	String	The availability status of the backup.	3.0.0
size	Long	The size of the backup.	3.0.0
metadata	String	The metadata of the backup.	3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0
backupStorageRefs	List	See backupStorageRefs	3.0.0

#backupStorageRefs

Name	Type	Description	Starting Version
volumeBackupUuid	String	The UUID of the volume backup.	3.0.0
backupStorageUuid	String	The UUID of the backup storage.	3.0.0
installPath	String	The storage path of the backup.	3.0.0
status	String	The status of the backup in the backup storage.	3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0

SDK Sample

Java SDK

```
RecoverVmBackupFromImageStoreBackupStorageAction action = new
RecoverVmBackupFromImageStoreBackupStorageAction();
action.groupUuid = "7913ce9f37973f4e8339aea4ff61584c";
action.srcBackupStorageUuid = "c63b10a638f6302caeabb7a806d087ad";
action.dstBackupStorageUuid = "7c7d653af1c531dfa04dabea3a085de5";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RecoverVmBackupFromImageStoreBackupStorageAction.Result res = action.
call();
```

Python SDK

```
RecoverVmBackupFromImageStoreBackupStorageAction action = RecoverVmB
ackupFromImageStoreBackupStorageAction()
action.groupUuid = "7913ce9f37973f4e8339aea4ff61584c"
action.srcBackupStorageUuid = "c63b10a638f6302caeabb7a806d087ad"
action.dstBackupStorageUuid = "7c7d653af1c531dfa04dabea3a085de5"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RecoverVmBackupFromImageStoreBackupStorageAction.Result res = action.
call()
```

6.2.1.1.17 SyncVmBackupFromImageStoreBackupStorage

API Request

URLs

```
PUT zstack/v1/vm-backups/{groupUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncVmBackupFromImageStoreBackupStorage": {
    "srcBackupStorageUuid": "3428f7d03e493f89b32c57ef80a7e5af",
    "dstBackupStorageUuid": "6f8c528537a9347a86da7a96fb7418d4"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncVmBackupFromImageStoreBackupStorage":
{"srcBackupStorageUuid":"3428f7d03e493f89b32c57ef80a7e5af","dstBackupStorageUuid":
http://localhost:8080/zstack/v1/vm-
backups/14e53ad2aecd3e7ebe1f05cb4f5dd6a5/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
groupUuid	String	url	The UUID of the backup group.		3.0.0
srcBackupStorageUuid	String	body(contained in the syncVmBackupFromImageStoreBackupStorage structure)	The local backup storage.		3.0.0
dstBackupStorageUuid	String	body(contained in the syncVmBackupFromImageStoreBackupStorage structure)	The remote backup storage.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response**Sample Response**

{

```

"inventories": [
  {
    "uuid": "cf59b77253e134e483ceda7e21c6bf15",
    "volumeUuid": "6be74434a84e3c939830a3987488a499",
    "name": "Root-Volume-Backup-1",
    "description": "volume backup",
    "size": 1.073741824E9,
    "groupUuid": "09d5949ca5f233c2adcf4c278f537cef",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  {
    "uuid": "c546170919a4300e9b3d3e29fc27de7f",
    "volumeUuid": "39656103b9e7391e89071517f9d21b91",
    "name": "Data-Volume-Backup-1",
    "description": "volume backup",
    "size": 2.147483648E9,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.0.0
inventories	List	See inventories	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the volume backup.	3.0.0
volumeUuid	String	The UUID of the volume.	3.0.0
name	String	The name of the volume backup.	3.0.0
description	String	The detailed description of the backup.	3.0.0
type	String	The type of the volume.	3.0.0
state	String	The status of the backup.	3.0.0
status	String	The availability status of the backup.	3.0.0
size	Long	The size of the backup.	3.0.0
metadata	String	The metadata of the backup.	3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0

Name	Type	Description	Starting Version
backupStorageRefs	List	See backupStorageRefs	3.0.0

#backupStorageRefs

Name	Type	Description	Starting Version
volumeBackupUuid	String	The UUID of the volume backup.	3.0.0
backupStorageUuid	String	The UUID of the backup storage.	3.0.0
installPath	String	The storage path of the backup.	3.0.0
status	String	The status of the backup in the backup storage.	3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0

SDK Sample

Java SDK

```

SyncVmBackupFromImageStoreBackupStorageAction action = new SyncVmBackupFromImageStoreBackupStorageAction();
action.groupUuid = "14e53ad2aec3e7ebe1f05cb4f5dd6a5";
action.srcBackupStorageUuid = "3428f7d03e493f89b32c57ef80a7e5af";
action.dstBackupStorageUuid = "6f8c528537a9347a86da7a96fb7418d4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SyncVmBackupFromImageStoreBackupStorageAction.Result res = action.call();

```

Python SDK

```

SyncVmBackupFromImageStoreBackupStorageAction action = SyncVmBackupFromImageStoreBackupStorageAction()
action.groupUuid = "14e53ad2aec3e7ebe1f05cb4f5dd6a5"
action.srcBackupStorageUuid = "3428f7d03e493f89b32c57ef80a7e5af"
action.dstBackupStorageUuid = "6f8c528537a9347a86da7a96fb7418d4"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"

```

```
SyncVmBackupFromImageStoreBackupStorageAction.Result res = action.call()
```

6.2.1.1.18 CreateDatabaseBackup

API Request

URLs

```
POST zstack/v1/database-backups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "zstack-db",
    "backupStorageUuid": "676c5945223647698fcf4da2fa46d1dd"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"zstack-db","backupStorageUuid":"0c0f5fc523d8420a97a9be367f112b4a"}}' http://localhost:8080/zstack/v1/database-backups
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the database backup.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	The detailed description of the backup.		3.0.0
backupStorageUuid	String	body (contained in the params structure)	The UUID of the backup storage.		3.0.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7decf4a7cb7c41dabc57446df2784476",
    "name": "zsdb",
    "state": "Enabled",
    "size": 1000.0,
    "metadata": "{\"version\":\"3.0.0\"}",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.0.0
inventory	DatabaseBackupInventory	See inventory	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the database backup.	3.0.0
name	String	The name of the backup.	3.0.0
description	String	The detailed description of the backup.	3.0.0
state	String		3.0.0
status	String		3.0.0
size	Long		3.0.0
metadata	String		3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0
backupStorageRefs	List	See backupStorageRefs	3.0.0

#backupStorageRefs

Name	Type	Description	Starting Version
databaseBackupUuid	String		3.0.0
backupStorageUuid	String	The UUID of the backup storage.	3.0.0
installPath	String		3.0.0
exportUrl	String		3.0.0
status	String		3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0

SDK Sample

Java SDK

```
CreateDatabaseBackupAction action = new CreateDatabaseBackupAction();
action.name = "zstack-db";
action.backupStorageUuid = "35c0d1e417d84bf498be201091f39c49";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateDatabaseBackupAction.Result res = action.call();
```

Python SDK

```
CreateDatabaseBackupAction action = CreateDatabaseBackupAction()
action.name = "zstack-db"
action.backupStorageUuid = "476870bf9c4241c8993340bd0703d0bf"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateDatabaseBackupAction.Result res = action.call()
```

6.2.1.1.19 DeleteDatabaseBackup

API Request

URLs

```
DELETE zstack/v1/database-backups/{uuid}?
backupStorageUids={backupStorageUids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
database-backups/9caf0430ce473651ae7033e1a16a0097?
backupStorageUids=0c54ad64cd8d3ca1ba9d98864bb83571
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the database backup.		3.0.0
backupStorageUids	List	url	Optional. The UUIDs of backup storage.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteDatabaseBackupAction action = new DeleteDatabaseBackupAction();
action.uuid = "9caf0430ce473651ae7033e1a16a0097";
action.backupStorageUuids = asList("0c54ad64cd8d3ca1ba9d98864bb83571");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteDatabaseBackupAction.Result res = action.call();
```

Python SDK

```
DeleteDatabaseBackupAction action = DeleteDatabaseBackupAction()
action.uuid = "9caf0430ce473651ae7033e1a16a0097"
action.backupStorageUuids = [0c54ad64cd8d3ca1ba9d98864bb83571]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteDatabaseBackupAction.Result res = action.call()
```

6.2.1.1.20 QueryDatabaseBackup

API Request

URLs

```
GET zstack/v1/database-backups
GET zstack/v1/database-backups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/database-backups?
q=uuid=9f5010336a233d6ebbd82594a6d56e7c
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/database-
backups/296a7da91333dd992d89bf30d9304ed
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryDatabaseBackup**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "742a7c7d4a4f3a01b206632a40ac414f",
      "name": "db-backup",
      "description": "db-backup",
      "size": 13107.0
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.0.0
inventories	List	See inventories	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current	3.0.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the database backup.	3.0.0
name	String	The name of the backup.	3.0.0
description	String	The detailed description of the backup.	3.0.0
state	String		3.0.0
status	String		3.0.0
size	Long		3.0.0
metadata	String		3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0
backupStorageRefs	List	See backupStorageRefs	3.0.0

#backupStorageRefs

Name	Type	Description	Starting Version
databaseBackupUuid	String		3.0.0
backupStorageUuid	String	The UUID of the backup storage.	3.0.0
installPath	String		3.0.0
exportUrl	String		3.0.0
status	String		3.0.0

Name	Type	Description	Starting Version
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0

SDK Sample

Java SDK

```
QueryDatabaseBackupAction action = new QueryDatabaseBackupAction();
action.conditions = asList("uuid=74b420b3e877354e832a900915aab41a");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryDatabaseBackupAction.Result res = action.call();
```

Python SDK

```
QueryDatabaseBackupAction action = QueryDatabaseBackupAction()
action.conditions = ["uuid=b11af605703231b4a898bed3fb7d94c0"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryDatabaseBackupAction.Result res = action.call()
```

6.2.1.1.21 SyncDatabaseBackup

API Request

URLs

```
PUT zstack/v1/database-backups/imageStore/{imageStoreUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncDatabaseBackup": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncDatabaseBackup":{}}' http://localhost:8080/zstack/v1/
database-backups/imageStore/2df92dfaba994da18c6a9801268d1703/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
imageStore Uuid	String	url			3.2.0
systemTags	List	body	Optional.		3.2.0
userTags	List	body	Optional.		3.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SyncDatabaseBackupAction action = new SyncDatabaseBackupAction();
action.imageStoreUuid = "e0803f92a12b42688d20f68beef19588";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SyncDatabaseBackupAction.Result res = action.call();
```

Python SDK

```
SyncDatabaseBackupAction action = SyncDatabaseBackupAction()
action.imageStoreUuid = "0de54b0b3067493f9461fc74906dfc54"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SyncDatabaseBackupAction.Result res = action.call()
```

6.2.1.1.22 RecoverDatabaseFromBackup

API Request

URLs

```
PUT zstack/v1/database-backups/actions?uuid={uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "recoverDatabaseFromBackup": {
    "backupStorageUrl": "ssh://root:password@localhost:22/Cloud_bs",
    "backupInstallPath": "zstore://zsbak/0ed599ec519249489475112a058bb93a",
    "mysqlRootPassword": "password"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"recoverDatabaseFromBackup":{"backupStorageUrl":"ssh://root:password@localhost:22/Cloud_bs","backupInstallPath":"zstore://zsbak/0ed599ec519249489475112a058bb93a","mysqlRootPassword":"password"}}'
http://localhost:8080/zstack/v1/database-backups/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	Optional. The UUID of the database backup.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUrl	String	body(contained in the recoverDatabaseFromBackup structure)	Optional. The URL of the backup storage.		3.0.0
backupInstallPath	String	body(contained in the recoverDatabaseFromBackup structure)	Optional. The storage path of the database backup.		3.0.0
mysqlRootPassword	String	body(contained in the recoverDatabaseFromBackup structure)	The root password of the MySQL database.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

Sample Response

```
{
  "logListenPort": 0.0
}
```

Name	Type	Description	Starting Version
logListenPort	int	The port that the browser listens to print logs in real time.	3.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

SDK Sample

Java SDK

```
RecoverDatabaseFromBackupAction action = new RecoverDatabaseFromBackupAction();
action.backupStorageUrl = "ssh://root:password@localhost:22/Cloud_bs";
action.backupInstallPath = "zstore://zsbak/0ed599ec519249489475112a058bb93a";
action.mysqlRootPassword = "password";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RecoverDatabaseFromBackupAction.Result res = action.call();
```

Python SDK

```
RecoverDatabaseFromBackupAction action = RecoverDatabaseFromBackupAction()
action.backupStorageUrl = "ssh://root:password@localhost:22/Cloud_bs"
action.backupInstallPath = "zstore://zsbak/0ed599ec519249489475112a058bb93a"
action.mysqlRootPassword = "password"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RecoverDatabaseFromBackupAction.Result res = action.call()
```

6.2.1.1.23 ExportDatabaseBackupFromBackupStorage

API Request

URLs

```
PUT zstack/v1/database-backups/{databaseBackupUuid}/backup-storage/{backupStorageUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "exportDatabaseBackupFromBackupStorage": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"exportDatabaseBackupFromBackupStorage":
{}}' http://localhost:8080/zstack/v1/database-
backups/6dae84793fc53f5b82034dd9a44c554b/backup-storage/
cc9127f6af0e32c888044f49048788a1/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	url	The UUID of the backup storage.		3.0.0
databaseBackupUuid	String	url	The UUID of the database backup.		3.0.0
systemTags	List	body	Optional.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional.		3.0.0

API Response

Sample Response

```
{
  "databaseBackupUrl": "http://127.0.0.1:8001/path/zstack-db-backup.gz"
}
```

Name	Type	Description	Starting Version
databaseBackupUrl	String	The URL of the exported database backup.	3.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

SDK Sample

Java SDK

```
ExportDatabaseBackupFromBackupStorageAction action = new ExportDatabaseBackupFromBackupStorageAction();
action.backupStorageUuid = "cc9127f6af0e32c888044f49048788a1";
action.databaseBackupUuid = "6dae84793fc53f5b82034dd9a44c554b";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ExportDatabaseBackupFromBackupStorageAction.Result res = action.call();
```

Python SDK

```
ExportDatabaseBackupFromBackupStorageAction action = ExportDatabaseBackupFromBackupStorageAction()
action.backupStorageUuid = "cc9127f6af0e32c888044f49048788a1"
action.databaseBackupUuid = "6dae84793fc53f5b82034dd9a44c554b"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ExportDatabaseBackupFromBackupStorageAction.Result res = action.call()
```

6.2.1.1.24 GetDatabaseBackupFromImageStore

API Request

URLs

```
GET zstack/v1/database-backups/image-store
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/database-backups/image-store?url=ssh://root:password@localhost:22/Cloud_bs&registryPort=8000.0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	query	The URL of the backup storage.		3.0.0
registryPort	int	query	Optional. The port used to access the backup storage.		3.0.0
systemTags	List	query	Optional.		3.0.0
userTags	List	query	Optional.		3.0.0

API Response

Sample Response

```
{
  "infos": [
    {
      "id": "270c67e3699f72ba",
      "created": "Nov 14, 2017 10:20:57 PM",
      "author": "zstack",
      "arch": "amd64",
      "size": 7995392.0,
      "virtualsize": 1.268224E7,
      "name": "78b6afbc9da73932a000fb9a75947962"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.0.0
infos	List	See infos	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	3.0.0

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#infos

Name	Type	Description	Starting Version
id	String	The ID of the database backup image in the backup storage.	3.0.0
parent	String	The name of the parent image.	3.0.0
blobsum	String	The hash of the image .	3.0.0
created	Timestamp	The time when the image was created.	3.0.0
author	String	The author of the image.	3.0.0
arch	String	The OS structure of the image.	3.0.0
desc	String	The description of the image.	3.0.0

Name	Type	Description	Starting Version
size	Long	The actual size of the image.	3.0.0
virtualsize	Long	The virtualized size of the image.	3.0.0
name	String	The name of the image in the backup storage.	3.0.0

SDK Sample

Java SDK

```
GetDatabaseBackupFromImageStoreAction action = new GetDatabaseBackupFromImageStoreAction();
action.url = "ssh://root:password@localhost:22/Cloud_bs";
action.registryPort = 8000.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetDatabaseBackupFromImageStoreAction.Result res = action.call();
```

Python SDK

```
GetDatabaseBackupFromImageStoreAction action = GetDatabaseBackupFromImageStoreAction()
action.url = "ssh://root:password@localhost:22/Cloud_bs"
action.registryPort = 8000.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetDatabaseBackupFromImageStoreAction.Result res = action.call()
```

6.2.1.1.25 DeleteExportedDatabaseBackupFromBackupStorage

API Request

URLs

```
DELETE zstack/v1/exported-database-backup/{databaseBackupUuid}/backup-storage/{backupStorageUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```



```
-X DELETE http://localhost:8080/zstack/v1/exported-
database-backup/341a599af82f3ecbab5d680e8dfb0276/backup-
storage/737f27cb664c31a594f71080d481dddf?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	url	The UUID of the backup storage.		3.0.0
databaseBackupUuid	String	url			3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteExportedDatabaseBackupFromBackupStorageAction action = new
DeleteExportedDatabaseBackupFromBackupStorageAction();
action.backupStorageUuid = "737f27cb664c31a594f71080d481dddf";
action.databaseBackupUuid = "341a599af82f3ecbab5d680e8dfb0276";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteExportedDatabaseBackupFromBackupStorageAction.Result res =
action.call();
```

Python SDK

```
DeleteExportedDatabaseBackupFromBackupStorageAction action =
DeleteExportedDatabaseBackupFromBackupStorageAction()
action.backupStorageUuid = "737f27cb664c31a594f71080d481dddf"
action.databaseBackupUuid = "341a599af82f3ecbab5d680e8dfb0276"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteExportedDatabaseBackupFromBackupStorageAction.Result res =
action.call()
```

6.2.1.1.26 SyncDatabaseBackupFromImageStoreBackupStorage

API Request

URLs

```
PUT zstack/v1/database-backups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncDatabaseBackupFromImageStoreBackupStorage": {
    "srcBackupStorageUuid": "72ad4c5419d63f5aaf37faf985c95a65",
    "dstBackupStorageUuid": "76b2c6b412a73ef8a4263e659c104fff"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncDatabaseBackupFromImageStoreBackupStorage": {
  "srcBackupStorageUuid": "72ad4c5419d63f5aaf37faf985c95a65", "dstBackupStorageUuid":
  "http://localhost:8080/zstack/v1/database-backups/4594a949f00e3a55932f5b5e66ec9d67/actions"
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the database backup.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
srcBackupStorageUuid	String	body(contained in the syncDatabaseBackupFromImageStorage structure)			3.0.0
dstBackupStorageUuid	String	body(contained in the syncDatabaseBackupFromImageStorage structure)			3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "c04683f1c53039d1bb0b0f0b601b5a5b",
    "name": "Backup-1",
    "description": "database backup",
    "size": 1048576.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.0.0

Name	Type	Description	Starting Version
inventory	DatabaseBackupInventory	See inventory	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the database backup.	3.0.0
name	String	The name of the backup.	3.0.0
description	String	The detailed description of the backup.	3.0.0
state	String		3.0.0

Name	Type	Description	Starting Version
status	String		3.0.0
size	Long		3.0.0
metadata	String		3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0
backupStorageRefs	List	See backupStorageRefs	3.0.0

#backupStorageRefs

Name	Type	Description	Starting Version
databaseBackupUuid	String		3.0.0
backupStorageUuid	String	The UUID of the backup storage.	3.0.0
installPath	String		3.0.0
exportUrl	String		3.0.0
status	String		3.0.0
createDate	Timestamp	The time when the backup was created.	3.0.0
lastOpDate	Timestamp	The time when the backup was last modified.	3.0.0

SDK Sample

Java SDK

```
SyncDatabaseBackupFromImageStoreBackupStorageAction action = new
SyncDatabaseBackupFromImageStoreBackupStorageAction();
action.uuid = "4594a949f00e3a55932f5b5e66ec9d67";
action.srcBackupStorageUuid = "72ad4c5419d63f5aaf37faf985c95a65";
action.dstBackupStorageUuid = "76b2c6b412a73ef8a4263e659c104fff";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
SyncDatabaseBackupFromImageStoreBackupStorageAction.Result res =
action.call();
```

Python SDK

```
SyncDatabaseBackupFromImageStoreBackupStorageAction action =
SyncDatabaseBackupFromImageStoreBackupStorageAction()
action.uuid = "4594a949f00e3a55932f5b5e66ec9d67"
action.srcBackupStorageUuid = "72ad4c5419d63f5aaf37faf985c95a65"
action.dstBackupStorageUuid = "76b2c6b412a73ef8a4263e659c104fff"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SyncDatabaseBackupFromImageStoreBackupStorageAction.Result res =
action.call()
```

6.2.1.1.27 AddSchedulerJobGroupToSchedulerTrigger

API Request

URLs

```
POST zstack/v1/scheduler/jobgroups/{schedulerJobGroupUuid}/scheduler/
triggers/{schedulerTriggerUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "triggerNow": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"triggerNow":false}}'
http://localhost:8080/zstack/v1/scheduler/
jobgroups/997c126bb3db39f6bbda1ffe90008f51/scheduler/
triggers/78341d4e8f683a3291527f4944fa6831
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
schedulerJobGroupUuid	String	url	The UUID of the scheduled job group.		3.4.0
schedulerTriggerUuid	String	url	The UUID of the trigger.		3.4.0
triggerNow	boolean	body (contained in the params structure)	Optional. Specify whether to trigger a job group now.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "inventory": {
    "schedulerJobGroupUuid": "ec8d2952f8f13747bbbf24f93585a63d",
    "schedulerTriggerUuid": "4b5bc56b58623324afe0a57951a96064"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.4.0
inventory	SchedulerJobGroupSchedulerTriggerRefInventory	See inventory	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
schedulerJobGroupUuid	String	The UUID of the scheduled job group.	3.4.0
schedulerTriggerUuid	String	The UUID of the trigger.	3.4.0
createDate	Timestamp	The time when the trigger was created.	3.4.0
lastOpDate	Timestamp	The time when the trigger was last modified.	3.4.0

SDK Sample

Java SDK

```
AddSchedulerJobGroupToSchedulerTriggerAction action = new AddSchedulerJobGroupToSchedulerTriggerAction();
action.schedulerJobGroupUuid = "997c126bb3db39f6bbda1ffe90008f51";
action.schedulerTriggerUuid = "78341d4e8f683a3291527f4944fa6831";
action.triggerNow = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddSchedulerJobGroupToSchedulerTriggerAction.Result res = action.call();
```

Python SDK

```
AddSchedulerJobGroupToSchedulerTriggerAction action = AddSchedulerJobGroupToSchedulerTriggerAction()
action.schedulerJobGroupUuid = "997c126bb3db39f6bbda1ffe90008f51"
action.schedulerTriggerUuid = "78341d4e8f683a3291527f4944fa6831"
action.triggerNow = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddSchedulerJobGroupToSchedulerTriggerAction.Result res = action.call()
```

6.2.1.1.28 RemoveSchedulerJobGroupFromSchedulerTrigger

API Request

URLs

```
DELETE zstack/v1/scheduler/jobgroups/{schedulerJobGroupUuid}/
scheduler/triggers/{schedulerTriggerUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/scheduler/
jobgroups/769b8cc2ba343736a919f4a849663fdb/scheduler/triggers/
e0f1e497653b39639ff6eac7f6cd2e48?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
schedulerJobGroupUuid	String	url	The UUID of the scheduled job group.		3.4.0

Name	Type	Location	Description	Optional Value	Starting Version
schedulerTriggerUuid	String	url	The UUID of the trigger.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveSchedulerJobGroupFromSchedulerTriggerAction action = new
RemoveSchedulerJobGroupFromSchedulerTriggerAction();
action.schedulerJobGroupUuid = "769b8cc2ba343736a919f4a849663fdb";
action.schedulerTriggerUuid = "e0f1e497653b39639ff6eac7f6cd2e48";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveSchedulerJobGroupFromSchedulerTriggerAction.Result res = action.
call();
```

Python SDK

```
RemoveSchedulerJobGroupFromSchedulerTriggerAction action = RemoveSche
dulerJobGroupFromSchedulerTriggerAction()
action.schedulerJobGroupUuid = "769b8cc2ba343736a919f4a849663fdb"
action.schedulerTriggerUuid = "e0f1e497653b39639ff6eac7f6cd2e48"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveSchedulerJobGroupFromSchedulerTriggerAction.Result res = action.  
call()
```

6.2.1.1.29 RunSchedulerTrigger

API Request

URLs

```
PUT zstack/v1/scheduler/triggers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "runSchedulerTrigger": {},  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X PUT -d '{"runSchedulerTrigger":{}}' http://localhost:8080/zstack/  
v1/scheduler/triggers/2a486c1cd0cd43f3ac40bd60c6dd6fc1/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the scheduler trigger.		3.5.0
jobUuids	List	body(contained in the runSchedulerTrigger structure)	Optional. The UUIDs of jobs.		3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional.		3.5.0
userTags	List	body	Optional.		3.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RunSchedulerTriggerAction action = new RunSchedulerTriggerAction();
action.uuid = "61b439ee76004c51bc262324d6eaa332";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RunSchedulerTriggerAction.Result res = action.call();
```

Python SDK

```
RunSchedulerTriggerAction action = RunSchedulerTriggerAction()
action.uuid = "8a5ed7d3e0194c2a98d1ecb529b15875"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RunSchedulerTriggerAction.Result res = action.call()
```

6.2.1.1.30 CreateSchedulerJobGroup

API Request

URLs

```
POST zstack/v1/scheduler/jobgroups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
```

```

    "name": "job",
    "description": "description",
    "type": "startVm"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params": {"name": "job", "description": "description", "type": "startVm"}}' http://localhost:8080/zstack/v1/scheduler/jobgroups

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the job group to be scheduled.		3.4.0
description	String	body (contained in the params structure)	Optional. The detailed description of the job group to be scheduled.		3.4.0
type	String	body (contained in the params structure)	The type of the jobs.	- startVm - stopVm - rebootVm - volumeSnapshot - volumeBackup - vmBackup - databaseBackup	4.3.0

Name	Type	Location	Description	Optional Value	Starting Version
				- runAutoScalingGroup - addIAM2ProjectLoginExpired - cancelIAM2ProjectLoginExpired	
parameters	Map	body (contained in the params structure)	Optional The parameters of the jobs.		3.4.0
resourceUuid	String	body (contained in the params structure)	Optional. Specify a UUID for the job group.		3.4.0
tagUuids	List	body (contained in the params structure)	Optional. The UUIDs of the tags.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0cd85a37bb88346c8c2d122913d812df",
    "targetResourceUuid": "c458e0fb141932d0a87af999b0d0ab81",
    "name": "SchedulerJob",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.4.0
inventory	SchedulerJobInventory	See inventory	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the job group.	3.4.0

Name	Type	Description	Starting Version
targetResourceUuid	String		3.4.0
name	String	The name of the job group.	3.4.0
description	String	The detailed description of the job group.	3.4.0
state	String		3.4.0
createDate	Timestamp	The time when the job group was created.	3.4.0
lastOpDate	Timestamp	The time when the job group was last modified.	3.4.0
triggersUuid	List		3.4.0

SDK Sample

Java SDK

```
CreateSchedulerJobGroupAction action = new CreateSchedulerJobGroupAction();
action.name = "job";
action.description = "description";
action.type = "startVm";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSchedulerJobGroupAction.Result res = action.call();
```

Python SDK

```
CreateSchedulerJobGroupAction action = CreateSchedulerJobGroupAction()
action.name = "job"
action.description = "description"
action.type = "startVm"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
CreateSchedulerJobGroupAction.Result res = action.call()
```

6.2.1.1.31 DeleteSchedulerJobGroup

API Request

URLs

```
DELETE zstack/v1/scheduler/jobgroups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/scheduler/
jobgroups/8bf8b175d6ce337eb24cbe37d9fe9b82
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the job group.		3.4.0
deleteMode	String	body	Optional. The mode under which the job group is deleted.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
}
```

SDK Sample

Java SDK

```
DeleteSchedulerJobGroupAction action = new DeleteSchedulerJobGr
oupAction();
action.uuid = "8bf8b175d6ce337eb24cbe37d9fe9b82";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteSchedulerJobGroupAction.Result res = action.call();
```

Python SDK

```
DeleteSchedulerJobGroupAction action = DeleteSchedulerJobGroupAction()
action.uuid = "8bf8b175d6ce337eb24cbe37d9fe9b82"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteSchedulerJobGroupAction.Result res = action.call()
```

6.2.1.1.32 UpdateSchedulerJobGroup

API Request

URLs

```
PUT zstack/v1/scheduler/jobgroups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSchedulerJobGroup": {
    "name": "Test2",
    "description": "new test"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSchedulerJobGroup":
{"name":"Test2","description":"new test"}}'
http://localhost:8080/zstack/v1/scheduler/
jobgroups/4dc1dbf847d733fc98ee2998b5e0eca2/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the job group.		3.4.0
name	String	body(contained in the updateSchedulerJobGroup structure)	Optional. The name of the job group.		3.4.0
description	String	body(contained in the updateSchedulerJobGroup structure)	Optional. The detailed description of the job group		3.4.0
state	String	body(contained in the updateSchedulerJobGroup structure)	Optional. The state of the job group.	- enable - disable	3.4.0
parameters	Map	body(contained in the updateSchedulerJobGroup structure)	Optional The parameters of the job group.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "inventory": {
```

```

    "uuid": "e344fd75079735369cbffda253cc173c",
    "name": "Test",
    "description": "create volume snapshot job",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.4.0
inventory	SchedulerJobGroupInventory	See inventory	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the job group.	3.4.0
name	String	The name of the job group.	3.4.0
description	String	The detailed description of the job group.	3.4.0
state	String	Optional. The state of the job group.	3.4.0
createDate	Timestamp	The time when the job group was created.	3.4.0
lastOpDate	Timestamp	The time when the job group was last modified.	3.4.0
jobData	String	The data of the jobs.	3.4.0
triggersUuid	List	The UUID of the trigger.	3.4.0

SDK Sample

Java SDK

```
UpdateSchedulerJobGroupAction action = new UpdateSchedulerJobGroupAction();
action.uuid = "4dc1dbf847d733fc98ee2998b5e0eca2";
action.name = "Test2";
action.description = "new test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSchedulerJobGroupAction.Result res = action.call();
```

Python SDK

```
UpdateSchedulerJobGroupAction action = UpdateSchedulerJobGroupAction()
action.uuid = "4dc1dbf847d733fc98ee2998b5e0eca2"
action.name = "Test2"
action.description = "new test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateSchedulerJobGroupAction.Result res = action.call()
```

6.2.1.1.33 QuerySchedulerJobGroup

API Request

URLs

```
GET zstack/v1/scheduler/jobgroups
GET zstack/v1/scheduler/jobgroups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/scheduler/jobgroups?
q=name=TestJobGroup&q=state=Enabled
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/scheduler/jobgroups/
c5cb16296a1334d2ac3cd666e1deeca3
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySchedulerJobGroup**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "03dd26d45bb43bb094f3fdec29d78829",
      "name": "test",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.4.0

Name	Type	Description	Starting Version
		more information, see error	
inventories	List	See inventories	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the job group.	3.4.0
name	String	The name of the job group.	3.4.0
description	String	The detailed description of the job group.	3.4.0

Name	Type	Description	Starting Version
state	String	Optional. The state of the job group.	3.4.0
createDate	Timestamp	The time when the job group was created.	3.4.0
lastOpDate	Timestamp	The time when the job group was last modified.	3.4.0
jobData	String	The data of the jobs.	3.4.0
triggersUuid	List	The UUID of the trigger.	3.4.0

SDK Sample

Java SDK

```
QuerySchedulerJobGroupAction action = new QuerySchedulerJobGroupAction
();
action.conditions = asList("name=TestJobGroup", "state=Enabled");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySchedulerJobGroupAction.Result res = action.call();
```

Python SDK

```
QuerySchedulerJobGroupAction action = QuerySchedulerJobGroupAction()
action.conditions = ["name=TestJobGroup", "state=Enabled"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySchedulerJobGroupAction.Result res = action.call()
```

6.2.1.1.34 AddSchedulerJobsToSchedulerJobGroup

API Request

URLs

```
POST zstack/v1/scheduler/jobgroups/{schedulerJobGroupUuid}/job/
{schedulerJobUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/
scheduler/jobgroups/280d3a22ab363006b61b4a6c0318056f/job/
[ed43fba83eb63a1cacb38c113e2bd38a]
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
schedulerJobGroupUuid	String	url	The UUID of the job group		3.4.0
schedulerJobUuids	List	url	The UUID of the job.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample**Java SDK**

```
AddSchedulerJobsToSchedulerJobGroupAction action = new AddSchedulerJobsToSchedulerJobGroupAction();
action.schedulerJobGroupUuid = "280d3a22ab363006b61b4a6c0318056f";
```

```
action.schedulerJobUuids = asList("ed43fba83eb63a1cacb38c113e2bd38a");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddSchedulerJobsToSchedulerJobGroupAction.Result res = action.call();
```

Python SDK

```
AddSchedulerJobsToSchedulerJobGroupAction action = AddSchedulerJobsToSchedulerJobGroupAction()
action.schedulerJobGroupUuid = "280d3a22ab363006b61b4a6c0318056f"
action.schedulerJobUuids = [ed43fba83eb63a1cacb38c113e2bd38a]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddSchedulerJobsToSchedulerJobGroupAction.Result res = action.call()
```

6.2.1.1.35 RemoveSchedulerJobsFromSchedulerJobGroup

API Request

URLs

```
DELETE zstack/v1/scheduler/jobgroups/{schedulerJobGroupUuid}/job/{schedulerJobUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/scheduler/jobgroups/fa287a3654d330658db1863b8a41a660/job/[24634a04cc45397cb0298258a47ad650]
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
schedulerJobGroupUuid	String	url	The UUID of the job group		3.4.0
schedulerJobUuids	List	url	The UUID of the job.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveSchedulerJobsFromSchedulerJobGroupAction action = new RemoveSchedulerJobsFromSchedulerJobGroupAction();
action.schedulerJobGroupUuid = "fa287a3654d330658db1863b8a41a660";
action.schedulerJobUuids = asList("24634a04cc45397cb0298258a47ad650");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveSchedulerJobsFromSchedulerJobGroupAction.Result res = action.call();
```

Python SDK

```
RemoveSchedulerJobsFromSchedulerJobGroupAction action = RemoveSchedulerJobsFromSchedulerJobGroupAction()
action.schedulerJobGroupUuid = "fa287a3654d330658db1863b8a41a660"
action.schedulerJobUuids = [24634a04cc45397cb0298258a47ad650]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveSchedulerJobsFromSchedulerJobGroupAction.Result res = action.call()
```

6.2.1.1.36 QuerySchedulerJobHistory

API Request

URLs

```
GET zstack/v1/scheduler/job/history
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/scheduler/job/history?
q=schedulerJobGroupUuid=7ae6456c0b01324dae6d4bef358a5772
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySchedulerJobHistory**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "id": 1.0,
      "triggerUuid": "add8c5eea85f41999baff295e47567bc",
      "schedulerJobUuid": "d7696913343040d8b98de04d59727711",
      "startTime": "Nov 14, 2017 10:20:57 PM",
      "executeTime": 900.0,
      "targetResourceUuid": "7cd923fa779044fd8510e8ee97aa579e",
      "requestDump": "{\"bsUuid\": \"716078c20a0047a69102174c6097a690\",
      \"resultDump\": \"{\\\"apiId\\\": \\\"f8cf5b6281164e519c0575a73b1b0d9c\\\", \\\"success\\\": true, \\\"headers\\\": {}, \\\"id\\\": \\\"d70a61ab1b20407c8df94ba7d90be081\\\", \\\"createdTime\\\": 1557305707668}\",
      \"success\": true
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	3.5.0
inventories	List	See inventories	3.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.5.0
details	String	The details about the error.	3.5.0
elaboration	String	The reserved field. Default value: null.	3.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.0

#inventories

Name	Type	Description	Starting Version
id	long		3.5.0
triggerUuid	String	The UUID of the trigger.	3.5.0
schedulerJobUuid	String	The UUID of the job.	3.5.0
schedulerJobGroupUuid	String	The UUID of the job group.	3.5.0
startTime	Timestamp	The time when the job was started.	3.5.0
executeTime	long	The duration of the job execution.	3.5.0
targetResourceUuid	String	The UUID of the job execution history.	3.5.0
requestDump	String	The job execution request.	3.5.0
resultDump	String	The job execution result.	3.5.0
success	boolean		3.5.0

SDK Sample

Java SDK

```
QuerySchedulerJobHistoryAction action = new QuerySchedulerJobHistoryAction();
action.conditions = asList("schedulerJobGroupUuid=7ae6456c0b01324dae6d4bef358a5772");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySchedulerJobHistoryAction.Result res = action.call();
```

Python SDK

```
QuerySchedulerJobHistoryAction action = QuerySchedulerJobHistoryAction()
action.conditions = ["schedulerJobGroupUuid=7ae6456c0b01324dae6d4bef358a5772"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySchedulerJobHistoryAction.Result res = action.call()
```

6.2.1.1.37 GetSchedulerExecutionReport

API Request

URLs

```
GET zstack/v1/scheduler/report
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/scheduler/report?
startTime=1.5856704E12&intervalTimeUnit=Month&range=4.0&schedulerJobTypes=vmBacku
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
startTime	long	query	The start time when the report was generated.		3.9.0
intervalTimeUnit	String	query	The unit of the interval.	- Hour - Month	3.9.0

Name	Type	Location	Description	Optional Value	Starting Version
range	int	query	The time range of the report.		3.9.0
schedulerJobTypes	List	query	The type of the scheduled job.		3.9.0
systemTags	List	query	Optional. The system tags.		3.9.0
userTags	List	query	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "successRecords": [
    100.0,
    99.0,
    50.0,
    0.0
  ],
  "failureRecords": [
    0.0,
    1.0,
    34.0,
    0.0
  ],
  "partialSuccessRecords": [
    0.0,
    0.0,
    16.0,
    0.0
  ],
  "waitingRecords": [
    0.0,
    0.0,
    0.0,
    100.0
  ]
}
```

Name	Type	Description	Starting Version
successRecords	List	The success records.	3.9.0
failureRecords	List	The failure records.	3.9.0

Name	Type	Description	Starting Version
partialSuccessRecords	List	The partial success records.	3.9.0
waitingRecords	List	The waiting records.	3.9.0
success	boolean		3.9.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
error	ErrorCode	See error .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

SDK Sample

Java SDK

```
GetSchedulerExecutionReportAction action = new GetSchedulerExecutionReportAction();
action.startTime = 1.5856704E12;
action.intervalTimeUnit = "Month";
action.range = 4.0;
action.schedulerJobTypes = asList("vmBackup");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetSchedulerExecutionReportAction.Result res = action.call();
```

Python SDK

```
GetSchedulerExecutionReportAction action = GetSchedulerExecutionReportAction()
action.startTime = 1.5856704E12
action.intervalTimeUnit = "Month"
action.range = 4.0
action.schedulerJobTypes = [vmBackup]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetSchedulerExecutionReportAction.Result res = action.call()
```

6.2.2 CBT Operations

6.2.2.1 CreateCbtTask

API Request

URLs

```
POST zstack/v1/cbt-task/create
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "My CDP Task",
    "vmInstanceUuid": "89878e17496030ba9c062cbb18924335"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"My CDP Task","vmInstanceUuid":"89878e17496030ba9c062cbb18924335"}}' http://localhost:8080/zstack/v1/cbt-task/create
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the params structure)	The resource name.		5.3.28

Name	Type	Location	Description	Valid Values	Starting Version
description	String	body (contained in the params structure)	Optional. The resource description.		5.3.28
resourceUuids	List	body (contained in the params structure)	The resource UUID list.		5.3.28
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		5.3.28
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The system tags.		5.3.28

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b70f4160919c38748f908f489ba306ce",
    "name": "My Task",
    "status": "Created"
  }
}
```

Name	Type	Description	Start Version
success	boolean		5.3.28
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28

Name	Type	Description	Start Version
inventory	CbtTaskInventory	See inventory	5.3.28

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.28
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.28

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time.	5.3.28
status	CbtTaskStatus	See status	5.3.28

#status

Name	Type	Description	Starting Version
Created	CbtTaskStatus	The task is created.	5.3.28
Starting	CbtTaskStatus	The task is starting.	5.3.28
Running	CbtTaskStatus	The task is running.	5.3.28
Stopped	CbtTaskStatus	The task is stopped.	5.3.28
Failed	CbtTaskStatus	The task failed.	5.3.28

SDK Sample

Java SDK

```
CreateCbtTaskAction action = new CreateCbtTaskAction();
action.name = "My CDP Task";
action.vmInstanceId = "89878e17496030ba9c062cbb18924335";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateCbtTaskAction.Result res = action.call();
```

Python SDK

```
CreateCbtTaskAction action = CreateCbtTaskAction()
action.name = "My CDP Task"
action.vmInstanceId = "89878e17496030ba9c062cbb18924335"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateCbtTaskAction.Result res = action.call()
```

6.2.2.2 DeleteCbtTask**API Request**

URLs

```
DELETE zstack/v1/cbt-task/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/cbt-
task/7017b8d5bef63877a528a5f56517c829
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		5.3.28
force	boolean	body	Optional.		5.3.28
deleteMode	String	body	Optional. The deletion mode (Permissive / Enforcing, Permissive).		5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags (可选)	List	body	Optional. The user tags.		5.3.28

API返回

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteCbtTaskAction action = new DeleteCbtTaskAction();
action.uuid = "7017b8d5bef63877a528a5f56517c829";
action.force = false;
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteCbtTaskAction.Result res = action.call();
```

Python SDK

```
DeleteCbtTaskAction action = DeleteCbtTaskAction()
action.uuid = "7017b8d5bef63877a528a5f56517c829"
action.force = false
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteCbtTaskAction.Result res = action.call()
```

6.2.2.3 QueryCbtTask

API Request

URLs

```
GET zstack/v1/cbt-task
```

```
GET zstack/v1/cbt-task/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cbt-task?
q=uuid=d6c3daab1c9b3274b5fc4088bd3e51ad
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cbt-task/
cf426711ed6538069d2d4d6d34d5e60a
```

Queryable Fields

ou can check all queryable fields and resource names that can be queried across tables by using zstack-cli, entering **QueryCbtTask**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "103f6f8dc6dc3f8b82c1e1923dc751e0",
      "name": "My Task",
      "status": "Running"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.28

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28
inventories	List	See inventories	5.3.28

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.3.28
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.28

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28

Name	Type	Description	Starting Version
description	String	The resource description.	5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time	5.3.28
status	CbtTaskStatus	See status	5.3.28

#status

Name	Type	Description	Starting Version
Created	CbtTaskStatus	The task is created.	5.3.28
Starting	CbtTaskStatus	The task is starting.	5.3.28
Running	CbtTaskStatus	The task is running.	5.3.28
Stopped	CbtTaskStatus	The task is stopped.	5.3.28
Failed	CbtTaskStatus	The task failed.	5.3.28

SDK Sample

Java SDK

```
QueryCbtTaskAction action = new QueryCbtTaskAction();
action.conditions = asList("uuid=bd8fa811d9c234ceada09446fa085967");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryCbtTaskAction.Result res = action.call();
```

Python SDK

```
QueryCbtTaskAction action = QueryCbtTaskAction()
action.conditions = ["uuid=0449908917ce338bba71c107848b7c5c"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryCbtTaskAction.Result res = action.call()
```

6.2.2.4 EnableCbtTask

API Request

URLs

```
POST zstack/v1/cbt-task/enable/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "bitmapName": ""
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"bitmapName":""}}'
http://localhost:8080/zstack/v1/cbt-task/enable/
adced083701e39869540ee2af82da0da
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		5.3.28
bitmapName	String	body (contained in the params structure).	Optional		5.3.28

Name	Type	Location	Description	Valid Values	Starting Version
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28

API Response

Sample Response

```
{
  "volumeCbtBackupInfos": [
    {}
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.28
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28
inventory	CbtTaskInventory	See inventory	5.3.28

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.28
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.28

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time.	5.3.28
status	CbtTaskStatus	See status	5.3.28

#status

Name	Type	Description	Starting Version
Created	CbtTaskStatus	The task is created.	5.3.28
Starting	CbtTaskStatus	The task is starting.	5.3.28
Running	CbtTaskStatus	The task is running.	5.3.28
Stopped	CbtTaskStatus	The task is stopped.	5.3.28
Failed	CbtTaskStatus	The task failed.	5.3.28

SDK Sample

Java SDK

```
EnableCbtTaskAction action = new EnableCbtTaskAction();
action.uuid = "adced083701e39869540ee2af82da0da";
action.bitmapName = "";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
EnableCbtTaskAction.Result res = action.call();
```

Python SDK

```
EnableCbtTaskAction action = EnableCbtTaskAction()
action.uuid = "adced083701e39869540ee2af82da0da"
action.bitmapName = ""
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
EnableCbtTaskAction.Result res = action.call()
```

6.2.2.5 DisableCbtTask

API Request

URLs

```
POST zstack/v1/cbt-task/disable/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "force": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"force":false}}' http://localhost:8080/zstack/
v1/cbt-task/disable/5a86262807b4363e95f2e57d2970d189
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		5.3.28

Name	Type	Location	Description	Valid Values	Starting Version
force	boolean	body (contained in the params structure).	Optional. Forcible or not.		5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5ca9c15a50c53f0dac359a64841d7b2b",
    "name": "My Task",
    "status": "Stopped"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.28
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28
inventory	CbtTaskInventory	See inventory	5.3.28

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.28

Name	Type	Description	Starting Version
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.28

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time.	5.3.28
status	CbtTaskStatus	See status	5.3.28

#status

Name	Type	Description	Starting Version
Created	CbtTaskStatus	The task is created.	5.3.28
Starting	CbtTaskStatus	The task is starting.	5.3.28
Running	CbtTaskStatus	The task is running.	5.3.28
Stopped	CbtTaskStatus	The task is stopped.	5.3.28
Failed	CbtTaskStatus	The task failed.	5.3.28

SDK Sample

Java SDK

```
DisableCbtTaskAction action = new DisableCbtTaskAction();
action.uuid = "5a86262807b4363e95f2e57d2970d189";
action.force = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DisableCbtTaskAction.Result res = action.call();
```

Python SDK

```
DisableCbtTaskAction action = DisableCbtTaskAction()
action.uuid = "5a86262807b4363e95f2e57d2970d189"
action.force = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DisableCbtTaskAction.Result res = action.call()
```

6.2.2.6 ExportNbdVolumes

API Request

URLs

```
POST zstack/v1/cbt-task/exportvolume
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "volumeUuids": [
      "8d7de4e1c3b73fc49772b0fef78b0fc7"
    ],
    "vmInstanceUuid": "7d8c1dec326c3230be08d3c82fb7a476",
    "force": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```



```
-X POST -d '{"params":{"volumeUuids":
["8d7de4e1c3b73fc49772b0fef78b0fc7"],"vmInstanceUuid":"7d8c1dec326c3230be08d3c82f
http://localhost:8080/zstack/v1/cbt-task/exportvolume
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
volumeUuids	List	body (contained in the params structure).	The volume UUID list.		5.3.28
vmInstanceUuid	String	body (contained in the params structure).	The VM UUID list.		5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28
force	boolean	body (contained in the params structure).	Optional. Forcible or not.		5.3.28

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ExportNbdVolumesAction action = new ExportNbdVolumesAction();
action.volumeUuids = asList("8d7de4e1c3b73fc49772b0fef78b0fc7");
action.vmInstanceUuid = "7d8c1dec326c3230be08d3c82fb7a476";
action.force = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ExportNbdVolumesAction.Result res = action.call();
```

Python SDK

```
ExportNbdVolumesAction action = ExportNbdVolumesAction()
action.volumeUuids = [8d7de4e1c3b73fc49772b0fef78b0fc7]
action.vmInstanceUuid = "7d8c1dec326c3230be08d3c82fb7a476"
action.force = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ExportNbdVolumesAction.Result res = action.call()
```

6.2.2.7 UnexportNbdVolumes

API Request

URLs

```
POST zstack/v1/cbt-task/unexportvolume
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "volumeUuids": [
      "82eaf8972ece3e228b6f75f61f8749d9"
    ],
    "vmInstanceUuid": "6456713db34a3d7e96c7e132179c413d"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"volumeUuids":
["82eaf8972ece3e228b6f75f61f8749d9"],"vmInstanceUuid":"6456713db34a3d7e96c7e13217
http://localhost:8080/zstack/v1/cbt-task/unexportvolume
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
volumeUuids	List	body (contained in the params structure).	The volume UUID list.		5.3.28
vmInstance Uuid	String	body (contained in the params structure).	The VM UUID list.		5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UnexportNbdVolumesAction action = new UnexportNbdVolumesAction();
action.volumeUuids = asList("82eaf8972ece3e228b6f75f61f8749d9");
action.vmInstanceUuid = "6456713db34a3d7e96c7e132179c413d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UnexportNbdVolumesAction.Result res = action.call();
```

Python SDK

```
UnexportNbdVolumesAction action = UnexportNbdVolumesAction()
action.volumeUuids = [82eaf8972ece3e228b6f75f61f8749d9]
action.vmInstanceUuid = "6456713db34a3d7e96c7e132179c413d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UnexportNbdVolumesAction.Result res = action.call()
```

6.2.3 Continuous Data Protection (CDP)

持续数据保护（CDP）服务以单独的功能模块形式提供，需提前购买持续数据保护（CDP）模块许可证，且需在购买云平台许可证基础上使用，不可单独使用。

6.2.3.1 CDP Operations

6.2.3.1.1 CreateCdpPolicy

API Request

URLs

```
POST zstack/v1/cdp-backup-storage/policy
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "MyCdpPolicyName",
    "description": "MyCdpDescription",
    "hourlyRpSinceDay": 3.0,
    "dailyRpSinceDay": 7.0,
    "expireTimeInDay": 30.0,
    "fullBackupIntervalInDay": 2.0,
    "recoveryPointPerSecond": 5.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name": "MyCdpPolicyName", "description": "MyCdpDescription", "hourlyRpSinceDay": 3.0
http://localhost:8080/zstack/v1/cdp-backup-storage/policy
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the resource.		4.5.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
retentionTimePerDay	Integer	body (contained in the params structure)	The retention time of the recovery points.		4.5.0
recoveryPointPerSecond	Integer	body (contained in the params structure)	The retention interval of the recovery points.		4.5.0
hourlyRecoveryPointSinceDay	Integer	body (contained in the params structure)	The day from which to keep a recovery point hourly.		4.5.0
dailyRecoveryPointSinceDay	Integer	body (contained in the params structure)	The day from which to keep a recovery point per day.		4.5.0
expireTimeInDay	Integer	body (contained in the params structure)	The valid time of the backup data.		4.5.0
fullBackupIntervalInDay	Integer	body (contained in the params structure)	The interval of the full backup.		4.5.0
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the resource.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The UUID list of the tags.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "MyCdpPolicyName",
    "description": "MyCdpDescription",
    "retentionTimePerDay": 7.0,
    "recoveryPointPerSecond": 5.0
  }
}
```

Name	Type	Description	Starting Version
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0
inventory	CdpPolicyInventory	See inventory .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the CDP policy.	4.5.0
name	String	The name of the CDP policy.	4.5.0
description	String	The detailed description of the CDP policy.	4.5.0
retentionTimePerDay	Integer	The retention time for the recovery points.	4.5.0
recoveryPointPerSecond	Integer	The retention interval of the recovery points.	4.5.0
createDate	Timestamp	The time when the CDP policy is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP policy is last modified.	4.5.0
state	CdpPolicyState	See state .	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CdpPolicyState	The CDP policy is enabled.	4.5.0
Disabled	CdpPolicyState	The CDP policy is disabled.	4.5.0

SDK Sample

Java SDK

```
CreateCdpPolicyAction action = new CreateCdpPolicyAction();
action.name = "MyCdpPolicyName";
action.description = "MyCdpDescription";
action.hourlyRpSinceDay = 3.0;
action.dailyRpSinceDay = 7.0;
action.expireTimeInDay = 30.0;
action.fullBackupIntervalInDay = 2.0;
action.recoveryPointPerSecond = 5.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateCdpPolicyAction.Result res = action.call();
```

Python SDK

```
CreateCdpPolicyAction action = CreateCdpPolicyAction()
action.name = "MyCdpPolicyName"
action.description = "MyCdpDescription"
action.hourlyRpSinceDay = 3.0
action.dailyRpSinceDay = 7.0
action.expireTimeInDay = 30.0
action.fullBackupIntervalInDay = 2.0
action.recoveryPointPerSecond = 5.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateCdpPolicyAction.Result res = action.call()
```

6.2.3.1.2 DeleteCdpPolicy

API Request

URLs

```
DELETE zstack/v1/cdp-backup-storage/policy/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```



```
-X DELETE http://localhost:8080/zstack/v1/cdp-backup-storage/
policy/6429f8a631993740b1c96e24bb64eca6
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the resource.		4.5.0
deleteMode	String	body	Optional. The delete mode.	• Permissive • Enforcing • Permissive	4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteCdpPolicyAction action = new DeleteCdpPolicyAction();
action.uuid = "6429f8a631993740b1c96e24bb64eca6";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteCdpPolicyAction.Result res = action.call();
```

Python SDK

```
DeleteCdpPolicyAction action = DeleteCdpPolicyAction()
action.uuid = "6429f8a631993740b1c96e24bb64eca6"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteCdpPolicyAction.Result res = action.call()
```

6.2.3.1.3 QueryCdpPolicy

API Request

URLs

```
GET zstack/v1/cdp-backup-storage/policy
GET zstack/v1/cdp-backup-storage/policy/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cdp-backup-storage/policy?
q=uuid=c58c597901553c81bc469ebdc0324340
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cdp-backup-storage/
policy/3cb711db1fbc3d80954ff45590fe11fc
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVolumeBackup**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "MyCdpPolicyName",
      "description": "MyCdpDescription",
      "retentionTimePerDay": 7.0,
      "recoveryPointPerSecond": 5.0
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation	4.5.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventories	List	See inventories .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the CDP policy.	4.5.0
name	String	The name of the CDP policy.	4.5.0
description	String	The detailed description of the CDP policy.	4.5.0

Name	Type	Description	Starting Version
retentionTimePerDay	Integer	The retention time of the recovery points.	4.5.0
recoveryPointPerSecond	Integer	The retention interval of the recovery points.	4.5.0
createDate	Timestamp	The time when the CDP policy is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP policy was last modified.	4.5.0
state	CdpPolicyState	See state .	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CdpPolicyState	The CDP policy is enabled.	4.5.0
Disabled	CdpPolicyState	The CDP policy is disabled.	4.5.0

SDK Sample

Java SDK

```
QueryCdpPolicyAction action = new QueryCdpPolicyAction();
action.conditions = asList("uuid=1cd7a1588ee73b4bb4ced0524e397b5e");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryCdpPolicyAction.Result res = action.call();
```

Python SDK

```
QueryCdpPolicyAction action = QueryCdpPolicyAction()
action.conditions = ["uuid=e7b6b0ad3c903889b3de90408450120a"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryCdpPolicyAction.Result res = action.call()
```

6.2.3.1.4 UpdateCdpPolicy

API Request

URLs

```
PUT zstack/v1/cdp-backup-storage/policy/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateCdpPolicy": {
    "name": "MyCdpPolicyName",
    "description": "MyCdpDescription",
    "retentionTimePerDay": 7.0,
    "hourlyRpSinceDay": 3.0,
    "dailyRpSinceDay": 7.0,
    "expireTimeInDay": 30.0,
    "fullBackupIntervalInDay": 2.0,
    "recoveryPointPerSecond": 5.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateCdpPolicy":
{"name": "MyCdpPolicyName", "description": "MyCdpDescription", "retentionTimePerDay":
http://localhost:8080/zstack/v1/cdp-backup-storage/policy/
e8e4ea26310e31fc9ee73329ebd5f180/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the resource.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	Optional. The name of the resource.		4.5.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
retentionTimePerDay	Integer	body (contained in the params structure)	Optional. The retention time of the recovery points.		4.5.0
recoveryPointPerSecond	Integer	body (contained in the params structure)	Optional. The retention interval of the recovery points.		4.5.0
hourlyRecoveryPointSinceDay	Integer	body (contained in the params structure)	The day from which to keep a recovery point hourly.		4.5.0
dailyRecoveryPointSinceDay	Integer	body (contained in the params structure)	The day from which to keep a recovery point per day.		4.5.0
expireTimeInDay	Integer	body (contained in the params structure)	The expiration time of the backup data.		4.5.0
fullBackupIntervalInDay	Integer	body (contained in the params structure)	The interval of the full backup.		4.5.0
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the resource.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
tagUuids	List	body (contained in the params structure)	Optional. The UUID list of the tags.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "name": "MyCdpPolicyName",
    "description": "MyCdpDescription",
    "retentionTimePerDay": 7.0,
    "recoveryPointPerSecond": 5.0
  }
}
```

Name	Type	Description	Starting Version
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0
inventory	CdpPolicyInventory	See inventory .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	4.5.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
name	String	The name of the resource.	4.5.0
description	String	The detailed description of the resource.	4.5.0
retentionTimePerDay	Integer	The retention time of the recovery points.	4.5.0
recoveryPointPerSecond	Integer	The retention interval of the recovery points.	4.5.0
createDate	Timestamp	The time when the CDP policy is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP policy was last modified.	4.5.0
backupStorageRefs	List	See state .	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CdpPolicyState	The CDP policy is enabled.	4.5.0
Disabled	CdpPolicyState	The CDP policy is disabled.	4.5.0

SDK Sample

Java SDK

```
UpdateCdpPolicyAction action = new UpdateCdpPolicyAction();
action.uuid = "e8e4ea26310e31fc9ee73329ebd5f180";
action.name = "MyCdpPolicyName";
action.description = "MyCdpDescription";
action.retentionTimePerDay = 7.0;
action.recoveryPointPerSecond = 5.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateCdpPolicyAction.Result res = action.call();
```

Python SDK

```
UpdateCdpPolicyAction action = UpdateCdpPolicyAction()
action.uuid = "e8e4ea26310e31fc9ee73329ebd5f180"
action.name = "MyCdpPolicyName"
action.description = "MyCdpDescription"
action.retentionTimePerDay = 7.0
action.recoveryPointPerSecond = 5.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateCdpPolicyAction.Result res = action.call()
```

6.2.3.1.5 CreateCdpTask**API Request**

URLs

```
POST zstack/v1/cdp-backup-storage/task
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "My CDP Task",
    "taskType": "VM",
    "policyUuid": "0a96fd4b7556333f858842dc1c2a8172",
    "backupStorageUuid": "56e28fa35b7c381e8b62315b9de20bb4",
```

```

    "resourceUuids": [
      "672119ce84b137d58a70885c7e9f6218"
    ],
    "backupBandwidth": 1.048576E8,
    "maxCapacity": 1.073741824E11,
    "maxLatency": 1.073741824E11
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"My CDP Task", "taskType":"VM", "policyUuid":"0a96fd4b7556333f858842dc1c2a8172", "backupStorageUuids":["672119ce84b137d58a70885c7e9f6218"], "backupBandwidth":1.048576E8, "maxCapacity":1.073741824E11}}' \
http://localhost:8080/zstack/v1/cdp-backup-storage/task

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the resource.		4.5.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
taskType	String	body (contained in the params structure)	The type of the CDP task.		4.5.0
policyUuid	String	body (contained in the params structure)	The UUID of permission policy.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
backupStorageUuid	String	body (contained in the params structure)	The UUID of backup storage.		4.5.0
resourceUuids	List	body (contained in the params structure)	The backup resource list.		4.5.0
backupBandwidth	long	body (contained in the params structure)	Optional. The backup rate of a single volume.		4.5.0
maxCapacity	long	body (contained in the params structure)	Optional. The planning capacity of the CDP task.		4.5.0
maxLatency	long	body (contained in the params structure)	Optional. The RPO maximum latency of the CDP task.		4.5.0
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the resource.		4.5.0
tagUuids	List	body (contained in the params structure)	Optional. The UUID list of the tags.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "613a2bba58f03c4ba98ec089674cefaa",
    "name": "My Task",
    "policyUuid": "ba5ccc11257b396089abd5f00e9bac50",
    "backupStorageUuid": "64a1daa72c9d3f578646517ba22e8988",
    "status": "Created",
    "state": "Enabled",
    "taskType": "VM",
    "backupBandwidth": 1.048576E8,
    "maxCapacity": 1.073741824E11,
    "usedCapacity": 0.0,
    "maxLatency": 1.048576E8,
    "currentLatency": 0.0
  }
}
```

Name	Type	Description	Starting Version
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0
inventory	CdpTaskInventory	See inventory .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the CDP task.	4.5.0
name	String	The name of the CDP task.	4.5.0
description	String	The detailed description of the CDP task.	4.5.0
policyUuid	String	The UUID of permission policy.	4.5.0
backupStorageUuid	String	The UUID of backup storage.	4.5.0
backupBandwidth	long	The backup rate of a single volume.	4.5.0
maxCapacity	long	The planning capacity of the CDP task.	4.5.0
usedCapacity	long	The used capacity of the CDP task.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0
status	CdpTaskStatus	See status .	4.5.0
state	CdpTaskState	See state .	4.5.0
taskType	CdpTaskType	See taskType .	4.5.0

Name	Type	Description	Starting Version
resourceRefs	List	See resourceRefs .	4.5.0

#status

Name	Type	Description	Starting Version
Created	CdpTaskStatus	The CDP task is created.	4.5.0
Starting	CdpTaskStatus	The CDP task is starting.	4.5.0
Running	CdpTaskStatus	The CDP task is running.	4.5.0
Stopped	CdpTaskStatus	The CDP task stopped.	4.5.0
Unknown	CdpTaskStatus	The state of the CDP task is unknown.	4.5.0
Failed	CdpTaskStatus	The CDP task failed.	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CdpTaskState	The CDP task is enabled.	4.5.0
Disabled	CdpTaskState	The CDP task is disabled.	4.5.0

#taskType

Name	Type	Description	Starting Version
VM	CdpTaskType	The VM instance corresponding to the CDP task.	4.5.0

#resourceRefs

Name	Type	Description	Starting Version
taskUuid	String	The UUID of the CDP task.	4.5.0

Name	Type	Description	Starting Version
resourceUuid	String	The UUID of the resource.	4.5.0
resourceType	String	The task resource list.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0

SDK Sample

Java SDK

```
CreateCdpTaskAction action = new CreateCdpTaskAction();
action.name = "My CDP Task";
action.taskType = "VM";
action.policyUuid = "0a96fd4b7556333f858842dc1c2a8172";
action.backupStorageUuid = "56e28fa35b7c381e8b62315b9de20bb4";
action.resourceUuids = asList("672119ce84b137d58a70885c7e9f6218");
action.backupBandwidth = 1.048576E8;
action.maxCapacity = 1.073741824E11;
action.maxLatency = 1.073741824E11;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateCdpTaskAction.Result res = action.call();
```

Python SDK

```
CreateCdpTaskAction action = CreateCdpTaskAction()
action.name = "My CDP Task"
action.taskType = "VM"
action.policyUuid = "0a96fd4b7556333f858842dc1c2a8172"
action.backupStorageUuid = "56e28fa35b7c381e8b62315b9de20bb4"
action.resourceUuids = ["672119ce84b137d58a70885c7e9f6218"]
action.backupBandwidth = 1.048576E8
action.maxCapacity = 1.073741824E11
action.maxLatency = 1.073741824E11
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateCdpTaskAction.Result res = action.call()
```

6.2.3.1.6 DeleteCdpTask

API Request

URLs

```
DELETE zstack/v1/cdp-task/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/cdp-
task/1b6124362d023f0fb13f20923e2075d7
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the resource.		4.5.0
deleteMode	String	body	Optional. The delete mode.	• Permissive • Enforcing • Permissive	4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```



```
}
```

SDK Sample

Java SDK

```
DeleteCdpTaskAction action = new DeleteCdpTaskAction();
action.uuid = "1b6124362d023f0fb13f20923e2075d7";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteCdpTaskAction.Result res = action.call();
```

Python SDK

```
DeleteCdpTaskAction action = DeleteCdpTaskAction()
action.uuid = "1b6124362d023f0fb13f20923e2075d7"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteCdpTaskAction.Result res = action.call()
```

6.2.3.1.7 QueryCdpTask

API Request

URLs

```
GET zstack/v1/cdp-task
GET zstack/v1/cdp-task/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cdp-task?
q=uuid=ba57edb98e983115804b74bc47e968e1
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cdp-
task/8249deb879fa303b841560bf3cbd5113
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVolumeBackup**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "cfcb3c865b2e363f96ec43615c9862d6",
      "name": "My Task",
      "policyUuid": "aa3ff8d5586b39c18b330f2b118e6936",
      "backupStorageUuid": "2ff526012ceb362ebfa903ba69d7a53a",
      "status": "Running",
      "state": "Enabled",
      "taskType": "VM",
      "backupBandwidth": 1.048576E8,
      "maxCapacity": 1.073741824E11,
      "usedCapacity": 2.395916E7
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0
inventories	List	See inventories .	4.5.0

#error

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
name	String	The name of the resource.	4.5.0
description	String	The detailed description of the resource.	4.5.0
policyUuid	String	The UUID of permission policy.	4.5.0
backupStorageUuid	String	The UUID of backup storage.	4.5.0

Name	Type	Description	Starting Version
backupBandwidth	long	The backup rate of a single volume.	4.5.0
maxCapacity	long	The planning capacity of the CDP task.	4.5.0
usedCapacity	long	The used capacity of the CDP task.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
name	String	The name of the scheduler job group.	4.5.0
description	String	The detailed description of the scheduler job group.	4.5.0
state	String	The state of the scheduler job group.	4.5.0
createDate	Timestamp	The time when the scheduler job group is created.	4.5.0
lastOpDate	Timestamp	The time of the scheduler job group is last modified.	4.5.0
jobData	String	The job data.	4.5.0
triggersUuid	List	The UUID of the triggers.	4.5.0
status	CdpTaskStatus	See status .	4.5.0
state	CdpTaskState	See state .	4.5.0

Name	Type	Description	Starting Version
taskType	CdpTaskType	See taskType .	4.5.0
resourceRefs	List	See resourceRefs .	4.5.0

#status

Name	Type	Description	Starting Version
Created	CdpTaskStatus	The CDP task is created.	4.5.0
Starting	CdpTaskStatus	The CDP task is starting.	4.5.0
Running	CdpTaskStatus	The CDP task is running.	4.5.0
Stopped	CdpTaskStatus	The CDP task stopped.	4.5.0
Unknown	CdpTaskStatus	The state of the CDP task is unknown.	4.5.0
Failed	CdpTaskStatus	The CDP task failed.	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CdpTaskState	The CDP task is enabled.	4.5.0
Disabled	CdpTaskState	The CDP task is disabled.	4.5.0

#taskType

Name	Type	Description	Starting Version
VM	CdpTaskType	The VM instance corresponding to the CDP task.	4.5.0

#resourceRefs

Name	Type	Description	Starting Version
taskUuid	String	The UUID of the CDP task.	4.5.0
resourceUuid	String	The UUID of the resource.	4.5.0
resourceType	String	The task resource list.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0

SDK Sample

Java SDK

```
QueryCdpTaskAction action = new QueryCdpTaskAction();
action.conditions = asList("uuid=b3096918b9c63955a8511653e969b911");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryCdpTaskAction.Result res = action.call();
```

Python SDK

```
QueryCdpTaskAction action = QueryCdpTaskAction()
action.conditions = ["uuid=6c898e4b47b93d85add6856b0ccce67"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryCdpTaskAction.Result res = action.call()
```

6.2.3.1.8 UpdateCdpTask

API Request

URLs

```
PUT zstack/v1/cdp-backup-storage/task/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateCdpTask": {
    "name": "My CDP Task",
    "backupBandwidth": 1.048576E8,
    "maxCapacity": 1.073741824E11,
    "maxLatency": 0.0
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateCdpTask":{"name":"My CDP
Task", "backupBandwidth":1.048576E8, "maxCapacity":1.073741824E11, "maxLatency":0.0
http://localhost:8080/zstack/v1/cdp-backup-storage/task/
aa0c3f89827f3317ac7e1a9b39c6278e/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the resource.		4.3.6
name	String	body (contained in the params structure)	Optional. The name of the resource.		4.3.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.3.6
backupBandwidth	long	body (contained in the params structure)	Optional. The backup rate of a single volume.		4.3.6
maxCapacity	long	body (contained in the params structure)	Optional. The planning capacity of the CDP task.		4.3.6
maxLatency	long	body (contained in the params structure)	Optional. The RPO maximum latency of the CDP task.		4.4.24
resourceUuid	String	body (contained in	Optional. The UUID of the resource.		4.3.6

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
tagUuids	List	body (contained in the params structure)	Optional. The UUID list of the tags.		4.3.6
systemTags	List	body	Optional. The system tags.		4.3.6
userTags	List	body	Optional. The user tags.		4.3.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2680ec1b4d0c3b69bc4c7a1813a8b3d0",
    "name": "My Task",
    "policyUuid": "aef28d43ccec3118bb597c237aa243ae",
    "backupStorageUuid": "06f62c4b65b237ee854dbcdf01798188",
    "status": "Created",
    "state": "Enabled",
    "taskType": "VM",
    "backupBandwidth": 1.048576E8,
    "maxCapacity": 1.073741824E11,
    "usedCapacity": 0.0,
    "maxLatency": 0.0,
    "currentLatency": 0.0
  }
}
```

Name	Type	Description	Starting Version
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0
inventory	CdpTaskInventory	See inventory .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
name	String	The name of the resource.	4.5.0
description	String	The detailed description of the resource.	4.5.0
policyUuid	String	The UUID of permission policy.	4.5.0
backupStorageUuid	String	The UUID of backup storage.	4.5.0
backupBandwidth	long	The backup rate of a single volume.	4.5.0

Name	Type	Description	Starting Version
maxCapacity	long	The planning capacity of the CDP task.	4.5.0
usedCapacity	long	The used capacity of the CDP task.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0
status	CdpTaskStatus	See status .	4.5.0
state	CdpTaskState	See state .	4.5.0
taskType	CdpTaskType	See taskType .	4.5.0
resourceRefs	List	See resourceRefs .	4.5.0

#status

Name	Type	Description	Starting Version
Created	CdpTaskStatus	The CDP task is created.	4.5.0
Starting	CdpTaskStatus	The CDP task is starting.	4.5.0
Running	CdpTaskStatus	The CDP task is running.	4.5.0
Stopped	CdpTaskStatus	The CDP task stopped.	4.5.0
Unknown	CdpTaskStatus	The state of the CDP task is unknown.	4.5.0
Failed	CdpTaskStatus	The CDP task failed.	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CdpTaskState	The CDP task is enabled.	4.5.0

Name	Type	Description	Starting Version
Disabled	CdpTaskState	The CDP task is disabled.	4.5.0

#taskType

Name	Type	Description	Starting Version
VM	CdpTaskType	The VM instance corresponding to the CDP task.	4.5.0

#resourceRefs

Name	Type	Description	Starting Version
taskUuid	String	The UUID of the CDP task.	4.5.0
resourceUuid	String	The UUID of the resource.	4.5.0
resourceType	String	The task resource list.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0

SDK Sample

Java SDK

```
UpdateCdpTaskAction action = new UpdateCdpTaskAction();
action.uuid = "aa0c3f89827f3317ac7e1a9b39c6278e";
action.name = "My CDP Task";
action.backupBandwidth = 1.048576E8;
action.maxCapacity = 1.073741824E11;
action.maxLatency = 0.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateCdpTaskAction.Result res = action.call();
```

Python SDK

```
UpdateCdpTaskAction action = UpdateCdpTaskAction()
action.uuid = "aa0c3f89827f3317ac7e1a9b39c6278e"
action.name = "My CDP Task"
action.backupBandwidth = 1.048576E8
action.maxCapacity = 1.073741824E11
```

```
action.maxLatency = 0.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateCdpTaskAction.Result res = action.call()
```

6.2.3.1.9 EnableCdpTask

API Request

URLs

```
POST zstack/v1/cdp-task/enable/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/cdp-task/
enable/579496f57aaf3450974972479474879e
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The name of the resource.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0945746644d9379faddf2ac0b70147ba",
    "name": "My Task",
    "policyUuid": "1fdbac28c4f737db9d0579ae8859e57b",
    "backupStorageUuid": "cfb2e97be9ab320594ee46d3946c356e",
    "status": "Running",
    "state": "Enabled",
    "taskType": "VM",
    "backupBandwidth": 1.048576E8,
    "maxCapacity": 1.073741824E11,
    "usedCapacity": 2.395916E7
  }
}
```

Name	Type	Description	Starting Version
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0
inventory	CdpTaskInventory	See inventory .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
name	String	The name of the resource.	4.5.0
description	String	The detailed description of the resource.	4.5.0
policyUuid	String	The UUID of permission policy.	4.5.0
backupStorageUuid	String	The UUID of backup storage.	4.5.0
backupBandwidth	long	The backup rate of a single volume.	4.5.0
maxCapacity	long	The planning capacity of the CDP task.	4.5.0
usedCapacity	long	The used capacity of the CDP task.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0
status	CdpTaskStatus	See status .	4.5.0
state	CdpTaskState	See state .	4.5.0
taskType	CdpTaskType	See taskType .	4.5.0

Name	Type	Description	Starting Version
resourceRefs	List	See resourceRefs .	4.5.0

#status

Name	Type	Description	Starting Version
Created	CdpTaskStatus	The CDP task is created.	4.5.0
Starting	CdpTaskStatus	The CDP task is starting.	4.5.0
Running	CdpTaskStatus	The CDP task is running.	4.5.0
Stopped	CdpTaskStatus	The CDP task stopped.	4.5.0
Unknown	CdpTaskStatus	The state of the CDP task is unknown.	4.5.0
Failed	CdpTaskStatus	The CDP task failed.	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CdpTaskState	The CDP task is enabled.	4.5.0
Disabled	CdpTaskState	The CDP task is disabled.	4.5.0

#taskType

Name	Type	Description	Starting Version
VM	CdpTaskType	The VM instance corresponding to the CDP task.	4.5.0

#resourceRefs

Name	Type	Description	Starting Version
taskUuid	String	The UUID of the CDP task.	4.5.0

Name	Type	Description	Starting Version
resourceUuid	String	The UUID of the resource.	4.5.0
resourceType	String	The task resource list.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0

SDK Sample

Java SDK

```
EnableCdpTaskAction action = new EnableCdpTaskAction();
action.uuid = "579496f57aaf3450974972479474879e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
EnableCdpTaskAction.Result res = action.call();
```

Python SDK

```
EnableCdpTaskAction action = EnableCdpTaskAction()
action.uuid = "579496f57aaf3450974972479474879e"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
EnableCdpTaskAction.Result res = action.call()
```

6.2.3.1.10 DisableCdpTask

API Request

URLs

```
POST zstack/v1/cdp-task/disable/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/cdp-task/
disable/0f5f6a9280233fa0b5c910c27274da98
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the resource.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "e43bfb102a783c01a19ce023adaaea19",
    "name": "My Task",
    "policyUuid": "6ebcb0afeca13b1b99267fa6235ad632",
    "backupStorageUuid": "19c774019dae3569a72b5502fddab153",
    "status": "Stopped",
    "state": "Disabled",
    "taskType": "VM",
    "backupBandwidth": 1.048576E8,
    "maxCapacity": 1.073741824E11,
    "usedCapacity": 2.3952346E8
  }
}
```

Name	Type	Description	Starting Version
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0

Name	Type	Description	Starting Version
inventory	CdpTaskInventory	See inventory .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
name	String	The name of the resource.	4.5.0
description	String	The detailed description of the resource.	4.5.0
policyUuid	String	The UUID of permission policy.	4.5.0

Name	Type	Description	Starting Version
backupStorageUuid	String	The UUID of backup storage.	4.5.0
backupBandwidth	long	The backup rate of a single volume.	4.5.0
maxCapacity	long	The planning capacity of the CDP task.	4.5.0
usedCapacity	long	The used capacity of the CDP task.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0
status	CdpTaskStatus	See status .	4.5.0
state	CdpTaskState	See state .	4.5.0
taskType	CdpTaskType	See taskType .	4.5.0
resourceRefs	List	See resourceRefs .	4.5.0

#status

Name	Type	Description	Starting Version
Created	CdpTaskStatus	The CDP task is created.	4.5.0
Starting	CdpTaskStatus	The CDP task is starting.	4.5.0
Running	CdpTaskStatus	The CDP task is running.	4.5.0
Stopped	CdpTaskStatus	The CDP task stopped.	4.5.0
Unknown	CdpTaskStatus	The state of the CDP task is unknown.	4.5.0
Failed	CdpTaskStatus	The CDP task failed.	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CdpTaskState	The CDP task is enabled.	4.5.0
Disabled	CdpTaskState	The CDP task is disabled.	4.5.0

#taskType

Name	Type	Description	Starting Version
VM	CdpTaskType	The VM instance corresponding to the CDP task.	4.5.0

#resourceRefs

Name	Type	Description	Starting Version
taskUuid	String	The UUID of the CDP task.	4.5.0
resourceUuid	String	The UUID of the resource.	4.5.0
resourceType	String	The task resource list.	4.5.0
createDate	Timestamp	The time when the CDP task is created.	4.5.0
lastOpDate	Timestamp	The time when the CDP task is last modified.	4.5.0

SDK Sample

Java SDK

```
DisableCdpTaskAction action = new DisableCdpTaskAction();
action.uuid = "0f5f6a9280233fa0b5c910c27274da98";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DisableCdpTaskAction.Result res = action.call();
```

Python SDK

```
DisableCdpTaskAction action = DisableCdpTaskAction()
action.uuid = "0f5f6a9280233fa0b5c910c27274da98"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DisableCdpTaskActionResult res = action.call()
```

6.2.3.1.11 ProtectVmInstanceRecoveryPoint

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/protect-recovery-point
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "protectVmInstanceRecoveryPoint": {
    "groupId": 1.0,
    "description": "My Awesome RP"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"protectVmInstanceRecoveryPoint":
{"groupId":1.0,"description":"My Awesome
RP"}}' http://localhost:8080/zstack/v1/vm-
instances/8242bb6842e73987a632354acfc239ec/protect-recovery-point
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The UUID of the VM instance.		4.5.0
groupId	long	body (contained in	The group ID of the		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	recovery points.		
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ProtectVmInstanceRecoveryPointAction action = new ProtectVmInstanceRecoveryPointAction();
action.vmInstanceId = "8242bb6842e73987a632354acfc239ec";
action.groupId = 1.0;
action.description = "My Awesome RP";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ProtectVmInstanceRecoveryPointAction.Result res = action.call();
```

Python SDK

```
ProtectVmInstanceRecoveryPointAction action = ProtectVmInstanceRecoveryPointAction()
action.vmInstanceId = "8242bb6842e73987a632354acfc239ec"
action.groupId = 1.0
action.description = "My Awesome RP"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ProtectVmInstanceRecoveryPointAction.Result res = action.call()
```

6.2.3.1.12 GetVmInstanceProtectedRecoveryPoints

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/protected-recovery-points
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
f71a2ffeec113d8e840a6808d09d1ca8/protected-recovery-points?
limit=1000.0&start=0.0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the resource.		4.5.0
limit	Integer	query	Optional. The maximum number of returned records.		4.5.0
start	Integer	query	Optional. The first record to query.		4.5.0
systemTags	List	query	Optional. The system tags.		4.5.0
userTags	List	query	Optional. The user tags.		4.5.0

API Response

Sample Response

```
{
```

```

"recoveryPoints": {
  "22d49432eaf23ef0996ac976e0b91185": [
    {
      "id": 1.0,
      "grpId": 1.0,
      "size": 851968.0,
      "volId": "22d49432eaf23ef0996ac976e0b91185",
      "ts": "2021-06-29T19:49:45+08:00"
    }
  ],
  "71423fb28eb135c994e566badfd8aece": [
    {
      "id": 2.0,
      "grpId": 0.0,
      "size": 196608.0,
      "volId": "71423fb28eb135c994e566badfd8aece",
      "ts": "2021-06-29T19:49:47+08:00"
    }
  ]
}

```

Name	Type	Description	Starting Version
recoveryPoints	Map	The list of the CDP recovery points.	4.5.0
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
GetVmInstanceProtectedRecoveryPointsAction action = new GetVmInstanceProtectedRecoveryPointsAction();
action.uuid = "f71a2ffeec113d8e840a6808d09d1ca8";
action.limit = 1000.0;
action.start = 0.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVmInstanceProtectedRecoveryPointsAction.Result res = action.call();
```

Python SDK

```
GetVmInstanceProtectedRecoveryPointsAction action = GetVmInstanceProtectedRecoveryPointsAction()
action.uuid = "f71a2ffeec113d8e840a6808d09d1ca8"
action.limit = 1000.0
action.start = 0.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetVmInstanceProtectedRecoveryPointsAction.Result res = action.call()
```

6.2.3.1.13 UnprotectVmInstanceRecoveryPoint

API Request

URLs

```
PUT zstack/v1/vm-instances/{vmInstanceUuid}/unprotect-recovery-point
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "unprotectVmInstanceRecoveryPoint": {
    "groupId": 1.0
  },
}
```



```
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"unprotectVmInstanceRecoveryPoint":
{"groupId":1.0}}' http://localhost:8080/zstack/v1/vm-
instances/05beea45590e3ea5ac08d81dba36f51f/unprotect-recovery-point
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstance Uuid	String	url	The UUID of the VM instance.		4.5.0
groupId	long	body (contained in the params structure)	The group ID of the recovery points.		4.5.0
systemTags (optional)	List	body	The system tags.		4.5.0
userTags (optional)	List	body	The user tags.		4.5.0

API Response**Sample Response**

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
UnprotectVmInstanceRecoveryPointAction action = new UnprotectVmInstanceRecoveryPointAction();
action.vmInstanceUuid = "05beea45590e3ea5ac08d81dba36f51f";
action.groupId = 1.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UnprotectVmInstanceRecoveryPointAction.Result res = action.call();
```

Python SDK

```
UnprotectVmInstanceRecoveryPointAction action = UnprotectVmInstanceRecoveryPointAction()
action.vmInstanceUuid = "05beea45590e3ea5ac08d81dba36f51f"
action.groupId = 1.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UnprotectVmInstanceRecoveryPointAction.Result res = action.call()
```

6.2.3.1.14 CreateVmFromCdpBackup

API Request

URLs

```
PUT zstack/v1/cdp-backups/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "createVmFromCdpBackup": {
    "name": "vm1",
    "groupId": 224.0,
    "cdpTaskUuid": "d2cb3e8626e1357aa022e05f86162987",
    "instanceOfferingUuid": "cc7000d5e89936d497c7ab12c653dae3",
    "l3NetworkUuids": [
      "e0961ef73a7336629a0710cf8a5c1c6b"
    ],
    "clusterUuid": "d57baa34a904394d86aa8336d8a6f9a9",
    "recoverBandwidth": 0.0,
    "description": "this is a vm"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"createVmFromCdpBackup":
{"name": "vm1", "groupId": 224.0, "cdpTaskUuid": "d2cb3e8626e1357aa022e05f86162987", "i
["e0961ef73a7336629a0710cf8a5c1c6b"], "clusterUuid": "d57baa34a904394d86aa8336d8a6f
is a vm"}}' http://localhost:8080/zstack/v1/cdp-backups/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the resource.		4.5.0
groupId	long	body (contained in the params structure)	The ID of the recovery points.		4.5.0
cdpTaskUuid	String	body (contained in the params structure)	The UUID of the CDP task.		4.5.0
instanceOf feringUuid	String	body (contained in the params structure)	The UUID of the instance offering.		4.5.0
defaultL3N etworkUuid	String	body (contained in the params structure)	Optional. The UUID of the default L3 network.		4.5.0
l3NetworkU uids	List	body (contained in the params structure)	The UUID list of L3 network.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
type	String	body (contained in the params structure)	Optional. The type of the VM .	- UserVm - ApplianceVm	4.5.0
zoneUuid	String	body (contained in the params structure)	Optional. The UUID of the zone.		4.5.0
clusterUuid	String	body (contained in the params structure)	Optional. The UUID of the cluster.		4.5.0
hostUuid	String	body (contained in the params structure)	Optional. The UUID of the host.		4.5.0
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	Optional. The UUID of the primary storage for root volume.		4.5.0
primaryStorageUuidForDataVolume	String	body (contained in the params structure)	Optional. The UUID of the primary storage for data volume.		4.5.0
recoverBandwidth	long	body (contained in the params structure)	Optional. The recover bandwidth.		4.5.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
rootVolumeSystemTags	List	body (contained in	Optional. The system tags		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	of the root volume.		
dataVolumeSystemTags	List	body (contained in the params structure)	Optional. The system tags of the data volume.		4.5.0
resourceUuid	String	body (contained in the params structure)	Optional. The UUID of the resource.		4.5.0
tagUuids	List	body (contained in the params structure)	Optional. The UUID list of the tags.		4.5.0
systemTags	List	body	Optional. The system tags of the VM.		4.5.0
userTags	List	body	Optional. The user tags of the VM.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ecadf3712d373abebbb48671015a49e2c",
    "name": "Test-VM",
    "description": "web server VM",
    "zoneUuid": "5274961ea09834f6bdc757ec9b1d205f",
    "clusterUuid": "6c00cd0c676e3b5397f9e635a1357336",
    "imageUuid": "e9316bbaf94a37dea9a41b8a42e30b3d",
    "hostUuid": "7f2a8fe14f863e43b95b4e204d2b6073",
    "lastHostUuid": "804827a4304e309a85efb214e32edd80",
    "instanceOfferingUuid": "7f8ece5779ef31bab691585ffc693b91",
    "rootVolumeUuid": "a2b37cf28a9834da826e14e5fd7a97c6",
    "platform": "Linux",
    "defaultL3NetworkUuid": "68bca6897c4f300881985f028e61ca92",
    "type": "UserVm",
    "hypervisorType": "KVM",
    "memorySize": 8.589934592E9,
    "cpuNum": 1.0,
    "allocatorStrategy": "LastHostPreferredAllocatorStrategy",
    "createDate": "Nov 14, 2017 10:20:57 PM",
  }
}
```

```

"lastOpDate": "Nov 14, 2017 10:20:57 PM",
"state": "Running",
"vmNics": [
  {
    "uuid": "645496bd84373644a52a1e62229cbb07",
    "vmInstanceUuid": "ecadf3712d373abebb48671015a49e2c",
    "usedIpUuid": "b89e21d52dbb3037a3ee585b253396f2",
    "l3NetworkUuid": "68bca6897c4f300881985f028e61ca92",
    "ip": "192.168.1.10",
    "mac": "00:0c:29:bd:99:fc",
    "netmask": "255.255.255.0",
    "gateway": "192.168.1.1",
    "deviceId": 0.0,
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
],
"allVolumes": [
  {
    "uuid": "a2b37cf28a9834da826e14e5fd7a97c6",
    "name": "Root-Volume-For-VM-ecadf3712d373abebb48671015a49e2c",
    "primaryStorageUuid": "3626202657933f2cb13df025773d9aa9",
    "vmInstanceUuid": "ecadf3712d373abebb48671015a49e2c",
    "rootImageUuid": "e9316bbaf94a37dea9a41b8a42e30b3d",
    "installPath": "/zstack_ps/rootVolumes/acct-36c27e8ff0
5c4780bf6d2fa65700f22e/vol-a2b37cf28a9834da826e14e5fd7a97c6/a2b37cf28a
9834da826e14e5fd7a97c6.qcow2",
    "type": "Root",
    "format": "qcow2",
    "size": 1.073741824E11,
    "actualSize": 2.147483648E10,
    "deviceId": 0.0,
    "state": "Enabled",
    "status": "Ready",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
]
}
}

```

Name	Type	Description	Starting Version
success	boolean		4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0
inventory	VmInstanceInventory	See inventory .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
name	String	The name of the resource.	4.5.0
description	String	The detailed description of the resource.	4.5.0
zoneUuid	String	The UUID of the zone.	4.5.0
clusterUuid	String	The UUID of the cluster.	4.5.0
imageUuid	String	The UUID of the image.	4.5.0
hostUuid	String	The UUID of the host.	4.5.0

Name	Type	Description	Starting Version
lastHostUuid	String		4.5.0
instanceOfferingUuid	String	The UUID of the instance offering.	4.5.0
rootVolumeUuid	String	The UUID of the root volume.	4.5.0
platform	String		4.5.0
architecture	String		4.5.0
defaultL3NetworkUuid	String		4.5.0
type	String		4.5.0
hypervisorType	String		4.5.0
memorySize	Long		4.5.0
cpuNum	Integer		4.5.0
cpuSpeed	Long		4.5.0
allocatorStrategy	String		4.5.0
createDate	Timestamp	The time when the resource is created.	4.5.0
lastOpDate	Timestamp	The time when the resource is last modified.	4.5.0
state	String		4.5.0
guestOsType	String		4.5.0
vmNics	List	See vmNics .	4.5.0
allVolumes	List	See allVolumes .	4.5.0
vmCdRoms	List	See vmCdRoms .	4.5.0

#vmNics

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
vmInstanceUuid	String	The UUID of the VM instance.	4.5.0

Name	Type	Description	Starting Version
I3NetworkUuid	String	The UUID of the L3 network.	4.5.0
ip	String		4.5.0
mac	String		4.5.0
hypervisorType	String		4.5.0
netmask	String		4.5.0
gateway	String		4.5.0
metaData	String		4.5.0
ipVersion	Integer		4.5.0
driverType	String		4.5.0
internalName	String		4.5.0
deviceId	Integer		4.5.0
type	String		4.5.0
createDate	Timestamp	The time when the resource is created.	4.5.0
lastOpDate	Timestamp	The time when the resource is last modified.	4.5.0
usedIps	List	See usedIps .	4.5.0

#usedIps

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
ipRangeUuid	String	The UUID of the IP range.	4.5.0
I3NetworkUuid	String	The UUID of the L3 network.	4.5.0
ipVersion	Integer		4.5.0
ip	String		4.5.0
netmask	String		4.5.0
gateway	String		4.5.0

Name	Type	Description	Starting Version
usedFor	String		4.5.0
ipInLong	long		4.5.0
vmNicUuid	String	The UUID of the VM NIC.	4.5.0
createDate	Timestamp	The time when the resource is created.	4.5.0
lastOpDate	Timestamp	The time when the resource is last modified.	4.5.0

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
name	String	The name of the resource.	4.5.0
description	String	The detailed description of the resource.	4.5.0
primaryStorageUuid	String	The UUID of the primary storage.	4.5.0
vmInstanceUuid	String	The UUID of the VM instance.	4.5.0
diskOfferingUuid	String	The UUID of the disk offering.	4.5.0
rootImageUuid	String		4.5.0
installPath	String		4.5.0
type	String		4.5.0
format	String		4.5.0
size	Long		4.5.0
actualSize	Long		4.5.0
deviceId	Integer		4.5.0
state	String		4.5.0

Name	Type	Description	Starting Version
status	String		4.5.0
createDate	Timestamp	The time when the resource is created.	4.5.0
lastOpDate	Timestamp	The time when the resource is last modified.	4.5.0
isShareable	Boolean		4.5.0
volumeQos	String		4.5.0
lastDetachDate	Timestamp		4.5.0
lastVmInstanceUuid	String		4.5.0

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The UUID of the resource.	4.5.0
vmInstanceUuid	String	The UUID of the VM instance.	4.5.0
deviceId	Integer		4.5.0
isoUuid	String		4.5.0
isoInstallPath	String		4.5.0
name	String	The name of the resource.	4.5.0
description	String	The detailed description of the resource.	4.5.0
createDate	Timestamp	The time when the resource is created.	4.5.0
lastOpDate	Timestamp	The time when the resource is last modified.	4.5.0

SDK Sample

Java SDK

```
CreateVmFromCdpBackupAction action = new CreateVmFromCdpBackupAction();
action.name = "vm1";
action.groupId = 224.0;
action.cdpTaskUuid = "d2cb3e8626e1357aa022e05f86162987";
action.instanceOfferingUuid = "cc7000d5e89936d497c7ab12c653dae3";
action.l3NetworkUuids = asList("e0961ef73a7336629a0710cf8a5c1c6b");
action.clusterUuid = "d57baa34a904394d86aa8336d8a6f9a9";
action.recoverBandwidth = 0.0;
action.description = "this is a vm";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmFromCdpBackupAction.Result res = action.call();
```

Python SDK

```
CreateVmFromCdpBackupAction action = CreateVmFromCdpBackupAction()
action.name = "vm1"
action.groupId = 224.0
action.cdpTaskUuid = "d2cb3e8626e1357aa022e05f86162987"
action.instanceOfferingUuid = "cc7000d5e89936d497c7ab12c653dae3"
action.l3NetworkUuids = [e0961ef73a7336629a0710cf8a5c1c6b]
action.clusterUuid = "d57baa34a904394d86aa8336d8a6f9a9"
action.recoverBandwidth = 0.0
action.description = "this is a vm"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmFromCdpBackupAction.Result res = action.call()
```

6.2.3.1.15 RevertVmFromCdpBackup

API Request

URLs

```
PUT zstack/v1/cdp-backups/{vmInstanceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "revertVmFromCdpBackup": {
    "backupStorageUuid": "13680e129d053ee092513efebf1ce00a",
    "groupId": 1.0,
    "useExistingVolume": true,
    "recoverBandwidth": 0.0
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"revertVmFromCdpBackup":
{"backupStorageUuid":"13680e129d053ee092513efebf1ce00a","groupId":1.0,"useExistin
http://localhost:8080/zstack/v1/cdp-backups/
faa5f80004b4393dbc59b91ab5a286b7/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	url	The UUID of the VM instance.		4.5.0
backupStorageUuid	String	body (contained in the params structure)	The UUID of the backup storage.		4.5.0
groupId	long	body (contained in the params structure)	The group ID of the recovery points.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	Optional. The UUID of the primary storage for new root volume.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
primaryStorageUuidForDataVolume	String	body (contained in the params structure)	Optional. The UUID of the primary storage for new data volume.		4.5.0
hostUuid	String	body (contained in the params structure)	Optional. The UUID of the host.		4.5.0
useExistingVolume	boolean	body (contained in the params structure)	Optional. Use the recover data to overwrite existing volume or not.		4.5.0
recoverBandwidth	long	body (contained in the params structure)	Optional. The recover bandwidth.		4.5.0

API Response

Sample Response

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RevertVmFromCdpBackupAction action = new RevertVmFromCdpBackupAction
();
action.vmInstanceUuid = "faa5f80004b4393dbc59b91ab5a286b7";
action.backupStorageUuid = "13680e129d053ee092513efebf1ce00a";
action.groupId = 1.0;
action.useExistingVolume = true;
action.recoverBandwidth = 0.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
RevertVmFromCdpBackupAction.Result res = action.call();
```

Python SDK

```
RevertVmFromCdpBackupAction action = RevertVmFromCdpBackupAction()
action.vmInstanceUuid = "faa5f80004b4393dbc59b91ab5a286b7"
action.backupStorageUuid = "13680e129d053ee092513efebf1ce00a"
action.groupId = 1.0
action.useExistingVolume = true
action.recoverBandwidth = 0.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RevertVmFromCdpBackupAction.Result res = action.call()
```

6.2.3.1.16 DeleteCdpTaskData

API Request

URLs

```
POST zstack/v1/cdp-task/{uuid}/data
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/cdp-task/06a058ba3bb43e91afe212bc710c559e/data
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the resource.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteCdpTaskDataAction action = new DeleteCdpTaskDataAction();
action.uuid = "06a058ba3bb43e91afe212bc710c559e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteCdpTaskDataAction.Result res = action.call();
```

Python SDK

```
DeleteCdpTaskDataAction action = DeleteCdpTaskDataAction()
action.uuid = "06a058ba3bb43e91afe212bc710c559e"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
DeleteCdpTaskDataAction.Result res = action.call()
```

6.2.3.1.17 GetVmInstanceRecoveryPoints

API Request

URLs

```
GET zstack/v1/vm-instances/{uuid}/recovery-points
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/
e2e9f8f2184135378b883036673d1780/recovery-points?
startTime=2021-06-25T15:36:16%2b08:00&limit=1000.0&start=0.0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The UUID of the resource.		4.5.0
startTime	String	query	Optional. The start time to query.		4.5.0
endTime	String	query	Optional. The end time to query.		4.5.0
scale	String	query	Optional. The unit of time to query the recovery points.	- minute - hour - day	4.5.0
limit	Integer	query	Optional. The maximum number of returned records.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
start	Integer	query	Optional. The first record to query.		4.5.0
systemTags	List	query	Optional. The system tags.		4.5.0
userTags	List	query	Optional. The user tags.		4.5.0

API Response

Sample Response

```
{
  "recoveryPoints": {
    "db058d634c403ffd9b55d4af14090c4b": [
      {
        "id": 2.0,
        "grpId": 1.0,
        "size": 196608.0,
        "volId": "db058d634c403ffd9b55d4af14090c4b",
        "ts": "2021-06-29T19:49:47+08:00"
      }
    ],
    "9092ed3354fe39ea854f2e22e0346223": [
      {
        "id": 1.0,
        "grpId": 1.0,
        "size": 851968.0,
        "volId": "9092ed3354fe39ea854f2e22e0346223",
        "ts": "2021-06-29T19:49:45+08:00"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
recoveryPoints	Map	The list of CDP recovery points.	4.5.0
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
GetVmInstanceRecoveryPointsAction action = new GetVmInstanceRecover
yPointsAction();
action.uuid = "e2e9f8f2184135378b883036673d1780";
action.startTime = "2021-06-25T15:36:16+08:00";
action.limit = 1000.0;
action.start = 0.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetVmInstanceRecoveryPointsAction.Result res = action.call();
```

Python SDK

```
GetVmInstanceRecoveryPointsAction action = GetVmInstanceRecover
yPointsAction()
action.uuid = "e2e9f8f2184135378b883036673d1780"
action.startTime = "2021-06-25T15:36:16+08:00"
action.limit = 1000.0
action.start = 0.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetVmInstanceRecoveryPointsAction.Result res = action.call()
```

6.2.3.1.18 MountVmInstanceRecoveryPoint

API Request

URLs

```
POST zstack/v1/cdp-backup-storage/mount-recovery-point
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmUuid": "b21d235bb4683fa88c9cd0ac660b1b45",
    "groupId": 1.0,
    "https": true
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vmUuid":"b21d235bb4683fa88c9cd0ac660b1b45","groupId":1.0,"https":true}}'
http://localhost:8080/zstack/v1/cdp-backup-storage/mount-recovery-
point
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmUuid	String	body (contained in the params structure)	The UUID of the VM instance.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
groupId	long	body (contained in the params structure)	The group ID of the recovery points.		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0
https	boolean	body (contained in the params structure)	Optional. Use https or not.		4.5.0

API Response

Sample Response

```
{
  "resourcePath": "http://cdp-storage-server/some-path"
}
```

Name	Type	Description	Starting Version
resourcePath	String	The resource path where the recovery point was successfully mounted.	4.5.0
failedVolumes	Map	The list of volumes that failed to mount recovery points.	4.5.0
success	boolean	Succeeded.	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
MountVmInstanceRecoveryPointAction action = new MountVmInstanceRecoveryPointAction();
action.vmUuid = "b21d235bb4683fa88c9cd0ac660b1b45";
action.groupId = 1.0;
action.https = true;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
MountVmInstanceRecoveryPointAction.Result res = action.call();
```

Python SDK

```
MountVmInstanceRecoveryPointAction action = MountVmInstanceRecoveryPointAction()
action.vmUuid = "b21d235bb4683fa88c9cd0ac660b1b45"
action.groupId = 1.0
action.https = true
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
MountVmInstanceRecoveryPointAction.Result res = action.call()
```

6.2.3.1.19 UnmountVmInstanceRecoveryPoint

API Request

URLs

```
POST zstack/v1/cdp-backup-storage/unmount-recovery-point
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmUuid": "1cd2fd6c1c6b39b3b7cb08a58cb448bc",
    "groupId": 1.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vmUuid":"1cd2fd6c1c6b39b3b7cb08a58cb448bc","groupId":1.0}}' http://
localhost:8080/zstack/v1/cdp-backup-storage/unmount-recovery-point
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmUuid	String	body (contained in the params structure)	The UUID of the VM instance.		4.5.0
groupId	long	body (contained in	The group ID of the		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	recovery points.		
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UnmountVmInstanceRecoveryPointAction action = new UnmountVmInstanceRecoveryPointAction();
action.vmUuid = "1cd2fd6c1c6b39b3b7cb08a58cb448bc";
action.groupId = 1.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UnmountVmInstanceRecoveryPointAction.Result res = action.call();
```

Python SDK

```
UnmountVmInstanceRecoveryPointAction action = UnmountVmInstanceRecoveryPointAction()
action.vmUuid = "1cd2fd6c1c6b39b3b7cb08a58cb448bc"
action.groupId = 1.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
UnmountVmInstanceRecoveryPointAction.Result res = action.call()
```

6.2.3.1.20 GetCdpBackupStorageRequirement

API Request

URLs

```
GET zstack/v1/cdp-backup-storage/{backupStorageUuid}/requirement
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/cdp-backup-storage/
ce44cb9ea12c354495fc6b4313fc90de/requirement?limit=1000&start=0
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
backupStorageUuid	String	url	The backup storage UUID.		5.1.4
limit	Integer	query	Optional.		5.1.4
start	Integer	query	Optional.		5.1.4
systemTags	List	query	Optional. The system tags.		5.1.4
userTags	List	query	Optional. The user tags.		5.1.4

API Response

Sample Response

```
{
  "nextStep": "None",
  "required": {
    "qemuVersion": "6.2.0"
  },
  "current": {
    "cdpVersion": "cdp"
  }
}
```

}

Name	Type	Description	Starting Version
required	Map	The conditions required.	5.1.4
current	Map	The current conditions.	5.1.4
success	boolean	Whether the task is successful.	5.1.4
nextStep	String	The next step.	5.1.4
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	5.1.4

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.1.4
description	String	The brief description of the error.	5.1.4
details	String	The details about the error.	5.1.4
elaboration	String	The reserved field. Default value: null.	5.1.4
opaque	LinkedHashMap	The reserved field. Default value: null.	5.1.4
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.1.4

SDK Sample

Java SDK

```
GetCdpBackupStorageRequirementAction action = new GetCdpBackupStorageRequirementAction();
action.backupStorageUuid = "ce44cb9ea12c354495fc6b4313fc90de";
action.limit = 1000;
action.start = 0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCdpBackupStorageRequirementAction.Result res = action.call();
```

Python SDK

```
GetCdpBackupStorageRequirementAction action = GetCdpBackupStorageRequirementAction()
action.backupStorageUuid = "ce44cb9ea12c354495fc6b4313fc90de"
action.limit = 1000
action.start = 0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetCdpBackupStorageRequirementAction.Result res = action.call()
```

6.2.3.1.21 UpgradeBackupStorageCdpTasks

API Request

URLs

```
PUT zstack/v1/cdp-task/upgrade/{backupStorageUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "upgradeBackupStorageCdpTasks": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"upgradeBackupStorageCdpTasks":
{}}' http://localhost:8080/zstack/v1/cdp-task/
upgrade/618da5c98de33bb0bc2434a80f0ab889/actions
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
backupStorageUuid	String	url	The backup storage UUID.		5.1.4
systemTags (可选)	List	body	The system tags.		5.1.4
userTags (可选)	List	body	The user tags.		5.1.4

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UpgradeBackupStorageCdpTasksAction action = new UpgradeBackupStorageCdpTasksAction();
action.backupStorageUuid = "618da5c98de33bb0bc2434a80f0ab889";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpgradeBackupStorageCdpTasksAction.Result res = action.call();
```

Python SDK

```
UpgradeBackupStorageCdpTasksAction action = UpgradeBackupStorageCdpTasksAction()
action.backupStorageUuid = "618da5c98de33bb0bc2434a80f0ab889"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpgradeBackupStorageCdpTasksAction.Result res = action.call()
```

6.2.3.1.22 APIDescribeVmInstanceRecoveryPoint

6.3 Automated O&M

6.3.1 Script Library

6.3.1.1 CreateGuestVmScript

API Request

URLs

```
POST zstack/v1/scripts
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "script1",
    "description": "this is a script",
    "scriptContent": "ZWNobyBoZWxsY3dvcmxkCg\u003d\u003d",
    "renderParams": "[{\\"key\\":\\"key\\",\\"value\\":\\"value\\",\\"description\\":\\"description\\"}]",
    "platform": "Linux",
    "scriptType": "Shell",
    "scriptTimeout": 30
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"script1","description":"this is a script","scriptContent":"ZWNobyBoZWxsY3dvcmxkCg==","renderParams":[{"key":"key","value":"value","description":"description"}}

```

```
\"}]", "platform": "Linux", "scriptType": "Shell", "scriptTimeout": 30}}'
http://localhost:8080/zstack/v1/scripts
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the params structure)	The resource name.		5.2.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		5.2.0
scriptContent	String	body (contained in the params structure)	The script content.		5.2.0
renderParams	String	body (contained in the params structure)	Optional. The custom parameters.		5.2.0
platform	String	body (contained in the params structure)	The platform.	- Windows - Linux	5.2.0
scriptType	String	body (contained in the params structure)	The script type.	- Shell - Python - Perl - Bat - Powershell	5.2.0
scriptTimeout	int	body (contained in the params structure)	Optional. The timeout period.		5.2.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		5.2.0

Name	Type	Location	Description	Valid Values	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a90f02b86916371a87bb5f2716dbfc0c",
    "name": "script1",
    "description": "this is a script",
    "scriptContent": "echo helloworld",
    "renderParams": "[{\"key\": \"key\", \"value\": \"value\", \"description\": \"description\"}]",
    "platform": "Linux",
    "scriptType": "Shell",
    "scriptTimeout": 30,
    "createDate": "Sep 23, 2024 11:53:59 AM",
    "lastOpDate": "Sep 23, 2024 11:53:59 AM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.2.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.2.0
inventory	GuestVmScriptInventory	See inventory	5.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.2.0
description	String	The brief description of the error.	5.2.0
details	String	The details about the error.	5.2.0
elaboration	String	The reserved field. Default value: null.	5.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.2.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
name	String	The resource name.	5.2.0
description	String	The detailed description of the resource.	5.2.0
scriptContent	String	The script content.	5.2.0
renderParams	String	The custom parameters.	5.2.0
platform	String	The platform	5.2.0
scriptType	String	The script type.	5.2.0
scriptTimeout	Integer	The timeout period.	5.2.0
createDate	Timestamp	The creation time.	5.2.0

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation time	5.2.0

SDK Sample

Java SDK

```
CreateGuestVmScriptAction action = new CreateGuestVmScriptAction();
action.name = "script1";
action.description = "this is a script";
action.scriptContent = "ZWNobyBoZWxsb3dvcmxkCg==";
action.renderParams = "[{"key":"key","value":"value","description":"description"}]";
action.platform = "Linux";
action.scriptType = "Shell";
action.scriptTimeout = 30;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateGuestVmScriptAction.Result res = action.call();
```

Python SDK

```
CreateGuestVmScriptAction action = CreateGuestVmScriptAction()
action.name = "script1"
action.description = "this is a script"
action.scriptContent = "ZWNobyBoZWxsb3dvcmxkCg=="
action.renderParams = "[{"key":"key","value":"value","description":"description"}]"
action.platform = "Linux"
action.scriptType = "Shell"
action.scriptTimeout = 30
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateGuestVmScriptAction.Result res = action.call()
```

6.3.1.2 DeleteGuestVmScript

API Request

URLs

```
DELETE zstack/v1/scripts/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/scripts/  
ed1ef717239e37c29163dcad7576b8d4
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		5.2.0
deleteMode	String	body	The deletion mode.	• Permissive • Enforcing, Permissive	5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API返回

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{  
  "error": {  
    "code": "SYS.1001",  
    "description": "A message or a operation timeout",  
    "details": "Create VM on KVM timeout after 300s"  
  }  
}
```

SDK Sample

Java SDK

```
DeleteGuestVmScriptAction action = new DeleteGuestVmScriptAction();  
action.uuid = "ed1ef717239e37c29163dcad7576b8d4";  
action.deleteMode = "Permissive";  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
DeleteGuestVmScriptAction.Result res = action.call();
```

Python SDK

```
DeleteGuestVmScriptAction action = DeleteGuestVmScriptAction()  
action.uuid = "ed1ef717239e37c29163dcad7576b8d4"  
action.deleteMode = "Permissive"  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteGuestVmScriptAction.Result res = action.call()
```

6.3.1.3 UpdateGuestVmScript

API Request

URLs

```
PUT zstack/v1/scripts/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateGuestVmScript": {
    "name": "test-script",
    "description": "desc",
    "scriptContent": "ls -lh",
    "renderParams": "",
    "platform": "Linux",
    "scriptType": "Shell",
    "scriptTimeout": 60
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateGuestVmScript":{"name":"test-script","description":"desc","scriptContent":"ls -lh","renderParams":"","platform":"Linux","scriptType":"Shell","scriptTimeout":60}}' \
http://localhost:8080/zstack/v1/scripts/110b774720573fd6aec8ec70b669ffb8/actions
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		5.2.0

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the updateGuestVmScript structure)	Optional. The resource name.		5.2.0
description	String	body (contained in the updateGuestVmScript structure)	Optional. The detailed description of the resource.		5.2.0
scriptContent	String	body (contained in the updateGuestVmScript structure)	Optional. The script content.		5.2.0
renderParams	String	body (contained in the updateGuestVmScript structure)	Optional. The custom parameters.		5.2.0
platform	String	body (contained in the updateGuestVmScript structure)	Optional. The platform.	- Windows - Linux	5.2.0
scriptType	String	body (contained in the updateGuestVmScript structure)	Optional. The script type.	- Shell - Python - Perl - Bat - Powershell	5.2.0

Name	Type	Location	Description	Valid Values	Starting Version
scriptTimeout	Integer	body (contained in the updateGuestVmScript structure)	Optional. The timeout period.		5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UpdateGuestVmScriptAction action = new UpdateGuestVmScriptAction();
action.uuid = "110b774720573fd6aec8ec70b669ffb8";
action.name = "test-script";
action.description = "desc";
action.scriptContent = "ls -lh";
action.renderParams = "";
action.platform = "Linux";
action.scriptType = "Shell";
action.scriptTimeout = 60;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateGuestVmScriptAction.Result res = action.call();
```

Python SDK

```
UpdateGuestVmScriptAction action = UpdateGuestVmScriptAction()
action.uuid = "110b774720573fd6aec8ec70b669ffb8"
action.name = "test-script"
action.description = "desc"
action.scriptContent = "ls -lh"
action.renderParams = ""
```

```

action.platform = "Linux"
action.scriptType = "Shell"
action.scriptTimeout = 60
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateGuestVmScriptAction.Result res = action.call()

```

6.3.1.4 ExecuteGuestVmScript

API Request

URLs

```
PUT zstack/v1/scripts/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "executeGuestVmScript": {
    "vmInstanceUuids": [
      "c9cc2aa748383595b144d9d12ff3abb2"
    ],
    "scriptTimeout": 60
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"executeGuestVmScript":{"vmInstanceUuids":
["c9cc2aa748383595b144d9d12ff3abb2"],"scriptTimeout":60}}' http://
localhost:8080/zstack/v1/scripts/f9f25df251013694bbbf68bb42b1bde1/
actions

```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	url	The resource UUID.		5.2.0

Name	Type	Location	Description	Valid Values	Starting Version
vmInstance Uuids	List	body (contained in the executeGuestVmScript structure)	The VM instance UUID .		5.2.0
scriptTimeout	Integer	body (contained in the executeGuestVmScript structure)	Optional. The timeout period .		5.2.0
logPath	String	body (contained in the executeGuestVmScript structure)	Optional. The log path.		5.2.0
systemTags	List	body (contained in the executeGuestVmScript structure)	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "e5dc4c630a7138a692e45ad372c5ba17",
    "scriptUuid": "da3f23e42960342b81c8d7f4cbceeb69",
    "recordName": "202308111633_script1",
    "scriptTimeout": 30,
    "status": "Running",
    "executor": "admin",
    "executionCount": 20,
    "version": 1,
    "startTime": "Sep 23, 2024 11:50:03 AM",
    "endTime": "Sep 23, 2024 11:50:03 AM"
  }
}
```

```
}
}
```

Name	Type	Description	Starting Version
success	boolean		5.2.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.2.0
inventory	SchedulerTriggerInventory	See inventory	5.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.2.0
description	String	The brief description of the error.	5.2.0
details	String	The details about the error.	5.2.0
elaboration	String	The reserved field. Default value: null.	5.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.2.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
scriptUuid	String	The script UUID.	5.2.0
recordName	String	The execution record name.	5.2.0
scriptTimeout	Integer	The timeout period.	5.2.0
status	String	The execution status.	5.2.0
executor	String	The executor.	5.2.0
executionCount	Integer	The execution times.	5.2.0
version	Integer	The version.	5.2.0
scriptContent	String	The script content.	5.2.0
startTime	Timestamp	The start time.	5.2.0
endTime	Timestamp	The end time.	5.2.0

SDK Sample

Java SDK

```
ExecuteGuestVmScriptAction action = new ExecuteGuestVmScriptAction();
action.uuid = "f9f25df251013694bbbf68bb42b1bde1";
action.vmInstanceUuids = asList("c9cc2aa748383595b144d9d12ff3abb2");
action.scriptTimeout = 60;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ExecuteGuestVmScriptAction.Result res = action.call();
```

Python SDK

```
ExecuteGuestVmScriptAction action = new ExecuteGuestVmScriptAction();
action.uuid = "f9f25df251013694bbbf68bb42b1bde1";
action.vmInstanceUuids = asList("c9cc2aa748383595b144d9d12ff3abb2");
action.scriptTimeout = 60;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ExecuteGuestVmScriptAction.Result res = action.call();
```

6.3.1.5 QueryGuestVmScript

API Request

URLs

```
GET zstack/v1/scripts
```

```
GET zstack/v1/scripts/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/scripts?
q=uuid={uuid}&q=name='script1'&q=platform='Linux'&q=scriptType='Shell'
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/scripts/
a37904a75a75326c87f5db7fe4bac326
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryGuestVmScript**, and pressing the Tab key.

API Sample

Sample Response

```
{
  "inventories": [
    {
      "name": "script1",
      "description": "this is a script",
      "scriptContent": "ZWNobyBoZWxsb3dvcmxkCg\u003d\u003d",
      "renderParams": "[{\\"key\\":\\"key\\",\\"value\\":\\"value\\",\\"
description\\":\\"description\\"}]",
      "platform": "Linux",
      "scriptType": "Shell",
      "scriptTimeout": 30
    }
  ]
}
```

}

Name	类型	描述	起始版本
success	boolean		5.2.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.2.0
inventory	SchedulerTriggerInventory	See inventories	5.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.2.0
description	String	The brief description of the error.	5.2.0
details	String	The details about the error.	5.2.0
elaboration	String	The reserved field. Default value: null.	5.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.2.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0
name	String	The resource name.	5.2.0
description	String	The detailed description of the resource.	5.2.0
scriptContent	String	The script content.	5.2.0
renderParams	String	The custom parameters.	5.2.0
platform	String	The platform.	5.2.0
scriptType	String	The script type.	5.2.0
scriptTimeout	Integer	The timeout period.	5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time.	5.2.0

SDK Sample

Java SDK

```
QueryGuestVmScriptAction action = new QueryGuestVmScriptAction();
action.conditions = asList("uuid={uuid}", "name='script1'", "platform='Linux'", "scriptType='Shell'");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryGuestVmScriptAction.Result res = action.call();
```

Python SDK

```
QueryGuestVmScriptAction action = QueryGuestVmScriptAction()
action.conditions = ["uuid={uuid}", "name='script1'", "platform='Linux'", "scriptType='Shell'"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryGuestVmScriptAction.Result res = action.call()
```

6.3.1.6 QueryGuestVmScriptExecutedRecord

API Request

URLs

```
GET zstack/v1/scripts/records
```

```
GET zstack/v1/scripts/records/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/scripts/records?
q=uuid={uuid}&q=scriptUuid={uuid}&q=platform='Linux'&q=scriptType='Shell'&q=execu
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/scripts/records/
a26b5051d35633b89903fbef2cf01c8a
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryGuestVmScriptExecutedRecord**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "459a1b622be53d6ebc830c0682b8016b",
      "scriptUuid": "692066c11aa83d11a5af28ada4fb7057",
      "recordName": "202308111633_script1",
      "scriptTimeout": 30,
      "executor": "admin",
      "executionCount": 20,
      "startTime": "Sep 23, 2024 11:51:30 AM",
      "endTime": "Sep 23, 2024 11:51:30 AM"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
success	boolean		5.2.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.2.0
inventories	List	See inventories	5.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.2.0
description	String	The brief description of the error.	5.2.0
details	String	The details about the error.	5.2.0
elaboration	String	The reserved field. Default value: null.	5.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.2.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.2.0

Name	Type	Description	Starting Version
scriptUuid	String	The script UUID.	5.2.0
recordName	String	The execution record name.	5.2.0
scriptTimeout	Integer	The timeout period.	5.2.0
status	String	The execution status.	5.2.0
executor	String	The execution.	5.2.0
executionCount	Integer	The execution times.	5.2.0
version	Integer	The version.	5.2.0
scriptContent	String	The script content.	5.2.0
startTime	Timestamp	The start time.	5.2.0
endTime	Timestamp	The end time.	5.2.0

SDK Sample

Java SDK

```
QueryGuestVmScriptExecutedRecordAction action = new QueryGuest
VmScriptExecutedRecordAction();
action.conditions = asList("uuid={uuid}", "scriptUuid={uuid}", "platform=
'Linux'", "scriptType='Shell'", "executedVmNum=2", "executedUser='admin
'");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryGuestVmScriptExecutedRecordAction.Result res = action.call();
```

Python SDK

```
QueryGuestVmScriptExecutedRecordAction action = QueryGuestVmScriptEx
ecutedRecordAction()
action.conditions = ["uuid={uuid}", "scriptUuid={uuid}", "platform='
Linux'", "scriptType='Shell'", "executedVmNum=2", "executedUser='admin'"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryGuestVmScriptExecutedRecordAction.Result res = action.call()
```

6.3.1.7 QueryGuestVmScriptExecutedRecordDetail

API Request

URLs

```
GET zstack/v1/scripts/records/details
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl示例

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/scripts/records/details?q=
recordUuid={ExecuteRecordUuid}&q=vmInstanceUuid={vmInstanceUuid}
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryGuestVmScriptExecutedRecordDetail**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "recordUuid": "ab90a0142aef36fd97c3c759bc7e459d",
      "vmInstanceUuid": "4708f0f6f76e39e882886241761d0c27",
      "status": "Completed",
      "stdout": "helloworld",
      "errCause": "",
      "stderr": "1/0 is not a goodScript",
      "startTime": "Sep 23, 2024 11:53:03 AM",
      "endTime": "Sep 23, 2024 11:53:03 AM"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		5.2.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	5.2.0

Name	Type	Description	Starting Version
		more information, see error	
inventories	List	See inventories	5.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.2.0
description	String	The brief description of the error.	5.2.0
details	String	The details about the error.	5.2.0
elaboration	String	The reserved field. Default value: null.	5.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.2.0

#inventories

Name	Type	Description	Starting Version
recordUuid	String	The execution record UUID.	5.2.0
vmInstanceUuid	String	The VM instance UUID.	5.2.0
vmName	String	The VM instance name.	5.2.0

Name	Type	Description	Starting Version
status	String	The execution status.	5.2.0
exitCode	Integer	The exist code.	5.2.0
stdout	String	The standard output.	5.2.0
errCause	String	The error cause.	5.2.0
stderr	String	The error output.	5.2.0
startTime	Timestamp	The start time.	5.2.0
endTime	Timestamp	The end time.	5.2.0

SDK Sample

Java SDK

```
QueryGuestVmScriptExecutedRecordDetailAction action = new QueryGuestVmScriptExecutedRecordDetailAction();
action.conditions = asList("recordUuid={ExecuteRecordUuid}", "vmInstanceUuid={vmInstanceUuid}");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryGuestVmScriptExecutedRecordDetailAction.Result res = action.call();
```

Python SDK

```
QueryGuestVmScriptExecutedRecordDetailAction action = QueryGuestVmScriptExecutedRecordDetailAction()
action.conditions = ["recordUuid={ExecuteRecordUuid}", "vmInstanceUuid={vmInstanceUuid}"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryGuestVmScriptExecutedRecordDetailAction.Result res = action.call
()
```

6.3.2 XML Hook

6.3.2.1 CreateVmUserDefinedXmlHookScript

API Request

URLs

```
POST zstack/v1/vm-instances/xml-hook-script
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "hook",
    "description": "xml hook",
    "hookScript": "base64"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"hook","description":"xml hook","hookScript":"base64"}}' http://localhost:8080/zstack/v1/vm-instances/xml-hook-script
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the params structure)	The XML Hook name.		5.2.0

Name	Type	Location	Description	Valid Values	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed information of the XML Hook.		5.2.0
hookScript	String	body (contained in the params structure)	The XML Hook content.		5.2.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		5.2.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

Sample Response

```
{
  "inventory": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.2.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.2.0
inventory	XmlHookInventory	See inventory	5.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.2.0
description	String	The brief description of the error.	5.2.0
details	String	The details about the error.	5.2.0
elaboration	String	The reserved field. Default value: null.	5.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	5.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.2.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The XML Hook UUID.	5.2.0
name	String	The XML Hook name.	5.2.0
description	String	The detailed information of the XML Hook.	5.2.0
hookScript	String	The XML Hook content.	5.2.0
libvirtVersion	String	The Libvirt version.	5.2.0
createDate	Timestamp	The creation time.	5.2.0
lastOpDate	Timestamp	The last operation time.	5.2.0

Name	Type	Description	Starting Version
type	XmlHookType	See type	5.2.0

#type

Name	Type	Description	Starting Version
System	XmlHookType		5.2.0
Customization	XmlHookType		5.2.0

SDK Sample

Java SDK

```
CreateVmUserDefinedXmlHookScriptAction action = new CreateVmUserDefinedXmlHookScriptAction();
action.name = "hook";
action.description = "xml hook";
action.hookScript = "base64";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateVmUserDefinedXmlHookScriptAction.Result res = action.call();
```

Python SDK

```
CreateVmUserDefinedXmlHookScriptAction action = CreateVmUserDefinedXmlHookScriptAction()
action.name = "hook"
action.description = "xml hook"
action.hookScript = "base64"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateVmUserDefinedXmlHookScriptAction.Result res = action.call()
```

6.3.2.2 ExpungeVmUserDefinedXmlHookScript**API Request**

URLs

```
DELETE zstack/v1/vm-instances/xml-hook-script
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/vm-instances/xml-hook-script
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	body	The XML Hook UUID.		5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ExpungeVmUserDefinedXmlHookScriptAction action = new ExpungeVmUserDefinedXmlHookScriptAction();
action.uuid = "99df64f50f5b34c6be5a7339d676aeb6";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ExpungeVmUserDefinedXmlHookScriptAction.Result res = action.call();
```

Python SDK

```
ExpungeVmUserDefinedXmlHookScriptAction action = ExpungeVmUserDefinedXmlHookScriptAction()
action.uuid = "99df64f50f5b34c6be5a7339d676aeb6"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ExpungeVmUserDefinedXmlHookScriptAction.Result res = action.call()
```

6.3.2.3 UpdateVmUserDefinedXmlHookScript

API Request

URLs

```
PUT zstack/v1/vm-instances/xml-hook-script
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateVmUserDefinedXmlHookScript": {
    "uuid": "a44a23f78c9c391c9d2f3a6a576e77d6",
    "name": "example"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateVmUserDefinedXmlHookScript":
{"uuid":"a44a23f78c9c391c9d2f3a6a576e77d6","name":"example"}}' http://
localhost:8080/zstack/v1/vm-instances/xml-hook-script
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	body (contained in the updateVmUserDefinedXmlHookScript structure)	The XML Hook UUID.		5.2.0

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the updateVmUserDefinedXmlHookScript structure)	Optional. The XML Hook name.		5.2.0
description	String	body (contained in the updateVmUserDefinedXmlHookScript structure)	Optional. The detailed information of the XML Hook .		5.2.0
hookScript	String	body (contained in the updateVmUserDefinedXmlHookScript structure)	Optional. The XML Hook content.		5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0
startupStrategy	String	body (contained in the updateVmUserDefinedXmlHookScript structure)	Optional. Whether reboot associated VM instances immediately.	• Reboot • None	5.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
```

```
"error": {
  "code": "SYS.1001",
  "description": "A message or a operation timeout",
  "details": "Create VM on KVM timeout after 300s"
}
```

SDK Sample

Java SDK

```
UpdateVmUserDefinedXmlHookScriptAction action = new UpdateVmUserDefinedXmlHookScriptAction();
action.uuid = "a44a23f78c9c391c9d2f3a6a576e77d6";
action.name = "example";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateVmUserDefinedXmlHookScriptAction.Result res = action.call();
```

Python SDK

```
UpdateVmUserDefinedXmlHookScriptAction action = UpdateVmUserDefinedXmlHookScriptAction()
action.uuid = "a44a23f78c9c391c9d2f3a6a576e77d6"
action.name = "example"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateVmUserDefinedXmlHookScriptAction.Result res = action.call()
```

6.3.2.4 AttachUserDefinedXmlHookScriptToVm

API Request

URLs

```
POST zstack/v1/xmlhook/{xmlHookUuid}/vm-instances/{vmInstanceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "startupStrategy": "None"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"startupStrategy":"None"}}' http://
localhost:8080/zstack/v1/xmlhook/73300c2b203e3e43bc4b0dec7c3b0f21/vm-
instances/6baaffd8cb123dcc954b6242835267b9
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vmInstanceUuid	String	url	The VM instance UUID.		5.2.0
xmlHookUuid	String	url	The XML Hook UUID.		5.2.0
startupStrategy	String	body (contained in the params structure)	Optional. Whether reboot the VM instance immediately.	- Reboot - None	5.2.0
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AttachUserDefinedXmlHookScriptToVmAction action = new AttachUserDefinedXmlHookScriptToVmAction();
action.vmInstanceUuid = "6baaffd8cb123dcc954b6242835267b9";
```

```
action.xmlHookUuid = "73300c2b203e3e43bc4b0dec7c3b0f21";
action.startupStrategy = "None";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachUserDefinedXmlHookScriptToVmAction.Result res = action.call();
```

Python SDK

```
AttachUserDefinedXmlHookScriptToVmAction action = AttachUserDefinedXml
HookScriptToVmAction()
action.vmInstanceUuid = "6baaffd8cb123dcc954b6242835267b9"
action.xmlHookUuid = "73300c2b203e3e43bc4b0dec7c3b0f21"
action.startupStrategy = "None"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachUserDefinedXmlHookScriptToVmAction.Result res = action.call()
```

6.3.2.5 DetachUserDefinedXmlHookScriptFromVm

API Request

URLs

```
DELETE zstack/v1/xmlhook/vm-instances/{vmInstanceUuid}/detach
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/xmlhook/vm-
instances/588ac603fdd73c7c8519235a73271188/detach
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
vmInstanceUuid	String	url	The VM instance UUID		5.2.0
startupStrategy	String	body	Optional. Whether reboot the VM instance immediately.	- Reboot - None	5.2.0
deleteMode	String	body	Optional. The deletion mode.	Permissive	5.2.0

Name	Type	Location	Description	Valid Values	Starting Version
				Enforcing, Permissive	
systemTags	List	body	Optional. The system tags.		5.2.0
userTags	List	body	Optional. The user tags.		5.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DetachUserDefinedXmlHookScriptFromVmAction action = new DetachUserDefinedXmlHookScriptFromVmAction();
action.vmInstanceId = "588ac603fdd73c7c8519235a73271188";
action.startupStrategy = "None";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachUserDefinedXmlHookScriptFromVmAction.Result res = action.call();
```

Python SDK

```
DetachUserDefinedXmlHookScriptFromVmAction action = DetachUserDefinedXmlHookScriptFromVmAction()
action.vmInstanceId = "588ac603fdd73c7c8519235a73271188"
action.startupStrategy = "None"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DetachUserDefinedXmlHookScriptFromVmAction.Result res = action.call()
```

6.3.2.6 QueryVmUserDefinedXmlHookScript

API Request

URLs

```
GET zstack/v1/vm-instances/xml-hook-script
GET zstack/v1/vm-instances/xml-hook-script/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/xml-hook-script?
q=uuid=xxx&q=name=xxx
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/vm-instances/xml-hook-script/
c2643474f4ca3bb1a5c9e821f53c3ed2
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryVmUserDefinedXmlHookScript**, and pressing the Tab key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryVmUserDefinedXmlHookScriptAction action = new QueryVmUserDefinedXmlHookScriptAction();
action.conditions = asList("uuid=xxx", "name=xxx");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryVmUserDefinedXmlHookScriptAction.Result res = action.call();
```

Python SDK

```
QueryVmUserDefinedXmlHookScriptAction action = QueryVmUserDefinedXm
lHookScriptAction()
action.conditions = ["uuid=xxx", "name=xxx"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryVmUserDefinedXmlHookScriptAction.Result res = action.call()
```

6.4 Tag Operations

6.4.1 CreateSystemTag

API Request

URLs

```
POST zstack/v1/system-tags
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "resourceType": "HostV0",
    "resourceUuid": "c31d63c6d40d489e87fa7e1ee5707d47",
    "tag": "reservedMemory::1G"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"resourceType":"HostV0","resourceUuid":"47609e353c6f331f93ac114d06379f8d","tag":
\
http://localhost:8080/zstack/v1/system-tags
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
resourceType	String	body (contained in the params structure)	The resource type, which must be specified when you create a tag.		0.6
resourceUuid	String	body (contained in the params structure)	The resource UUID. If specified, the system will not allocate randomly a UUID to the resource.		0.6
tag	String	body (contained in the params structure)	The tag string.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you create a system tag in ZStack Cloud, you can specify whether to automatically uninstall the physical PCI device allocated from the device specifications when the VM instance is shut down. You can also delete or change the configurations of existing VM instances. Note that you can add the **autoReleaseSpecRelatedPhysicalPciDevice** option to **SystemTags**.
 - Format of the **autoReleaseSpecRelatedPhysicalPciDevice** option: `autoReleaseSpecRelatedPhysicalPciDevice`
 - Example: `autoReleaseSpecRelatedPhysicalPciDevice`
- When you create a system tag in ZStack Cloud, you can specify whether to automatically uninstall the virtual PCI device allocated from the device specifications when the VM instance

is shut down. You can also delete or change the configurations of existing VM instances. Note that you can add the **autoReleaseSpecReleatedVirtualPciDevice** option to **SystemTags**.

- Format of the **autoReleaseSpecReleatedVirtualPciDevice** option: `autoReleaseSpecReleatedVirtualPciDevice`
- Example: `autoReleaseSpecReleatedVirtualPciDevice`
- You create system tags in ZStack Cloud to identify VM instances or VPC vRouters for which high availability policy is enabled or disabled. You can specify the **resourceBindings** option when you create **SystemTags**.
 - Format: `resourceBindings::Cluster:clusterUuid`
 - Example: `resourceBindings::Cluster:2sdasf231jvznsdak`
- You create system tags in ZStack Cloud to identify and filter the images of HA load balancers or VPC vRouters. You can specify the **applianceType** option when you create **SystemTags**.
 - Format: `applianceType::type`
 - Example: `applianceType::slb`
- You create system tags in ZStack Cloud to identify HA load balancers. You can specify the **SlbGroupUuid** option when you create **SystemTags**.
 - Format: `SlbGroupUuid::uuid`
 - Example: `SlbGroupUuid::12345678`
- When you add a system tag on ZStack Cloud, you can specify a custom parameter to the **boot.ipxe** file by adding **extraBootParams** to the **SystemTags** option.
 - Format: `extraBootParams::{custom parameter}`
 - Example: `extraBootParams::{acpi=noirq noapic}`

API Response

Sample Response

```
{
  "inventory": {
    "inherent": false,
    "uuid": "55d86810cb564ecc934fa79d498b9dc3",
    "resourceType": "HostV0",
    "tag": "reservedMemory::1G",
    "type": "System",
    "createDate": "Apr 24, 2017 7:10:55 PM",
    "lastOpDate": "Apr 24, 2017 7:10:55 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see Error .	0.6
inventory	SystemTagInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
inherent	Boolean	The inherent system tag.	0.6

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
resourceUuid	String	The resource UUID. If specified, the system will not allocate randomly a UUID to the resource.	0.6
resourceType	String	The resource type , which must be specified when you create a tag.	0.6
tag	String	The tag string.	0.6
type	String	The reserved field for internal use.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
CreateSystemTagAction action = new CreateSystemTagAction();
action.resourceType = "HostV0";
action.resourceUuid = "c63dfecc5c3f4f24bdab3eda92036eef";
action.tag = "reservedMemory::1G";
action.sessionId = "494209d421304d1cb9b8aaab7cac3a45";
CreateSystemTagAction.Result res = action.call();
```

Python SDK

```
CreateSystemTagAction action = CreateSystemTagAction()
action.resourceType = "HostV0"
action.resourceUuid = "d8f0bf84c4bc41c99ff7129a369515c1"
action.tag = "reservedMemory::1G"
action.sessionId = "f84ee562742b4aaab791842d71f5d472"
CreateSystemTagAction.Result res = action.call()
```

6.4.2 QuerySystemTag

API Request

URLs

```
GET zstack/v1/system-tags
```

```
GET zstack/v1/system-tags/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 67bf58bea6854e568556b0e9f4bc84f6" \
-X GET http://localhost:8080/zstack/v1/system-tags?
q=inherent=true&q=resourceType=HostV0
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth c798e7031aaa430386636f9ff8d6bb17" \
-X GET http://localhost:8080/zstack/v1/system-
tags/7c8162efed2840c08a43e0afdcebf01b
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySystemTag**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "inherent": false,
      "uuid": "0bba7cb618314646aea4e70b9be3bfea",
      "resourceType": "HostV0",
      "tag": "reservedMemory:1G",
      "type": "System",
      "createDate": "May 11, 2017 1:22:40 PM",
      "lastOpDate": "May 11, 2017 1:22:40 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
inherent	Boolean	The inherent system tag.	0.6
uuid	String	The resource UUID.	0.6
resourceUuid	String	The resource UUID. If specified, the system will not allocate randomly a UUID to the resource.	0.6
resourceType	String	The resource type , which must be specified when you create a tag.	0.6
tag	String	The tag string.	0.6

Name	Type	Description	Starting Version
type	String	The reserved field for internal use.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QuerySystemTagAction action = new QuerySystemTagAction();
action.conditions = asList("inherent=true", "resourceType=HostV0");
action.sessionId = "05c74fc02e574e678a407f0cce5f8ae5f";
QuerySystemTagAction.Result res = action.call();
```

Python SDK

```
QuerySystemTagAction action = QuerySystemTagAction()
action.conditions = ["inherent=true", "resourceType=HostV0"]
action.sessionId = "a1d2f95577514d0a918ce1502dc27e33"
QuerySystemTagAction.Result res = action.call()
```

6.4.3 UpdateSystemTag

API Request

URLs

```
PUT zstack/v1/system-tags/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSystemTag": {
    "tag": "for-large-DB"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSystemTag":{"tag":"for-large-DB"}}' \
http://localhost:8080/zstack/v1/system-tags/2cb4ac52794535c3ae61f9612c1579e7/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
tag	String	body (contained in the updateSystemTag structure)	The tag string.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "inherent": false,
    "uuid": "c17377dfd0794521a4fe02b6eb16cc5a",
    "resourceType": "HostV0",
    "tag": "reservedMemory::1G",
    "type": "System",
    "createDate": "May 11, 2017 1:22:30 PM",
    "lastOpDate": "May 11, 2017 1:22:30 PM"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SystemTagInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
inherent	Boolean	The inherent system tag.	0.6

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
resourceUuid	String	The resource UUID. If specified, the system will not allocate randomly a UUID to the resource.	0.6
resourceType	String	The resource type , which must be specified when you create a tag.	0.6
tag	String	The tag string.	0.6
type	String	The reserved field for internal use.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateSystemTagAction action = new UpdateSystemTagAction();
action.uuid = "1ba32bc1af0446b29bd969029a6052a5";
action.tag = "for-large-DB";
action.sessionId = "367f6162107a47d58c471c9164139fab";
UpdateSystemTagAction.Result res = action.call();
```

Python SDK

```
UpdateSystemTagAction action = UpdateSystemTagAction()
action.uuid = "be98b2f4e342485486cfa612eeabcaa5"
action.tag = "for-large-DB"
action.sessionId = "6b7af956a9a9477eba02753417380070"
```

```
UpdateSystemTagAction.Result res = action.call()
```

6.4.4 CreateUserTag

API Request

URLs

```
POST zstack/v1/user-tags
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "resourceType": "DiskOfferingV0",
    "resourceUuid": "beff527f6ccb45c8b215c59434b2fa5c",
    "tag": "for-large-DB"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"resourceType":"DiskOfferingV0","resourceUuid":"0a93a8d099a9339bb21b6e14a4ca3eea
large-DB"}}' \
http://localhost:8080/zstack/v1/user-tags
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
resourceType	String	body (contained in the params structure)	The resource type, which must be specified		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			when you create a tag.		
resourceUuid	String	body (contained in the params structure)	The resource UUID. If specified, the system will not allocate randomly a UUID to the resource.		0.6
tag	String	body (contained in the params structure)	The tag string.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b97c64cbf0524f809c05bf9eaf262b79",
    "resourceType": "DiskOfferingV0",
    "tag": "for-large-DB",
    "type": "User",
    "createDate": "May 11, 2017 1:22:33 PM",
    "lastOpDate": "May 11, 2017 1:22:33 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	UserTagInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
resourceUuid	String	The resource UUID. If specified, the system will not allocate randomly a UUID to the resource.	0.6
resourceType	String	The resource type , which must be specified when you create a tag.	0.6
tag	String	The tag string.	0.6

Name	Type	Description	Starting Version
type	String	The reserved field for internal use.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
CreateUserTagAction action = new CreateUserTagAction();
action.resourceType = "DiskOfferingV0";
action.resourceUuid = "824246fa21d8405fbd48ea1cc7dbf049";
action.tag = "for-large-DB";
action.sessionId = "5d9cde1f7e6a43f586ec78dedf743201";
CreateUserTagAction.Result res = action.call();
```

Python SDK

```
CreateUserTagAction action = CreateUserTagAction()
action.resourceType = "DiskOfferingV0"
action.resourceUuid = "11f5e230f43d49e69815c35fbd39bad5"
action.tag = "for-large-DB"
action.sessionId = "6301b756253c4103adbf8c891d858e5f"
CreateUserTagAction.Result res = action.call()
```

6.4.5 QueryUserTag

API Request

URLs

```
GET zstack/v1/user-tags
GET zstack/v1/user-tags/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/user-tags?
q=resourceType=DiskOfferingV0&q=tag=for-large-DB
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/user-tags/
e2a3aa3463dd382fb9e434304167f331
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryUserTag**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "ae4f2dd05a513e1e8d350d448c2071a9",
      "resourceType": "DiskOfferingV0",
      "tag": "for-large-DB",
      "type": "User",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
resourceUuid	String	The UUID of the associated resource. If specified, the system will not allocate randomly a UUID to the resource.	0.6
resourceType	String	The resource type , which must be specified when you create a tag.	0.6
tag	String	The tag string.	0.6
type	String	The reserved field for internal use.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryUserTagAction action = new QueryUserTagAction();
action.conditions = asList("resourceType=DiskOfferingV0", "tag=for-large-DB");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryUserTagAction.Result res = action.call();
```

Python SDK

```
QueryUserTagAction action = QueryUserTagAction()
action.conditions = ["resourceType=DiskOfferingV0", "tag=for-large-DB"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryUserTagAction.Result res = action.call()
```

6.4.6 DeleteTag

API Request

URLs

```
DELETE zstack/v1/tags/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 7a2a51da1758430382624e00144e70c5" \
-X DELETE http://localhost:8080/zstack/v1/
tags/1d33d909355247508cdbf9a0c0037dbe?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource name.		0.6
deleteMode	String	body	Optional. The delete mode . Options: Permissive Enforcing. Default mode: Permissive.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you delete a tag in ZStack Cloud, you can specify whether to automatically uninstall the physical PCI device allocated from the device specifications when the VM instance is shut down. You can also delete or change the configurations of existing VM instances. Note that you can add the **autoReleaseSpecReleatedPhysicalPciDevice** option to **SystemTags**.
 - Format of the **autoReleaseSpecReleatedPhysicalPciDevice** option: `autoReleaseSpecReleatedPhysicalPciDevice`
 - Example: `autoReleaseSpecReleatedPhysicalPciDevice`
- When you delete a tag in ZStack Cloud, you can specify whether to automatically uninstall the virtual PCI device allocated from the device specifications when the VM instance is shut down. You can also delete or change the configurations of existing VM instances. Note that you can add the **autoReleaseSpecReleatedVirtualPciDevice** option to **SystemTags**.
 - Format of the **autoReleaseSpecReleatedVirtualPciDevice** option: `autoReleaseSpecReleatedVirtualPciDevice`
 - Example: `autoReleaseSpecReleatedVirtualPciDevice`

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteTagAction action = new DeleteTagAction();
action.uuid = "8262e178c23140f6a4de6f0d9e6a0913";
action.deleteMode = "Permissive";
action.sessionId = "94c2bff91f834a96b691a36e47888967";
DeleteTagAction.Result res = action.call();
```

Python SDK

```
DeleteTagAction action = DeleteTagAction()
action.uuid = "86a3f5e633dd40358cab072951058ec9"
```

```

action.deleteMode = "Permissive"
action.sessionId = "87c504af0b5a484d87a5ad4ddac57baa"
DeleteTagAction.Result res = action.call()

```

6.4.7 CreateTag

API Request

URLs

POST zstack/v1/tags

Headers

Authorization: OAuth the-session-uuid

Body

```

{
  "params": {
    "name": "new-tag",
    "value": "new-tag",
    "description": "tag-for-volume",
    "color": "#FFFFFF",
    "type": "simple"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"new-tag","value":"new-tag","description":"tag-for-volume","color":"#FFFFFF","type":"simple"}}' http://localhost:8080/zstack/v1/tags

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in	The resource name.		3.2.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
value	String	body (contained in the params structure)	The tag value.		3.2.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.2.0
color	String	body (contained in the params structure)	Optional. The tag color.		3.2.0
type	String	body (contained in the params structure)	Optional. The tag type.	• simple • withToken	3.2.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.2.0
systemTags	List	body	Optional.		3.2.0
userTags	List	body	Optional.		3.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
CreateTagAction action = new CreateTagAction();
action.name = "new-tag";
action.value = "new-tag";
action.description = "tag-for-volume";
action.color = "#FFFFFF";
action.type = "simple";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateTagAction.Result res = action.call();
```

Python SDK

```
CreateTagAction action = new CreateTagAction();
action.name = "new-tag";
action.value = "new-tag";
action.description = "tag-for-volume";
action.color = "#FFFFFF";
action.type = "simple";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateTagAction.Result res = action.call();
```

6.4.8 QueryTag

API Request

URLs

```
GET zstack/v1/tags
```

```
GET zstack/v1/tags/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/tags
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/
tags/6f81ada534e3363f9e8a00caa2f48564
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryTag**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "f7ac675964d0386b89d8df713f68aee0",
      "name": "SSD",
      "value": "SSD",
      "description": "SSD volume",
      "color": "#FFFFFF",
      "type": "simple",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.2.0
inventories	List	See inventories .	3.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.2.0
description	String	The brief description of the error.	3.2.0
details	String	The details about the error.	3.2.0
elaboration	String	The reserved field. Default value: null.	3.2.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.2.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.2.0
name	String	The resource name.	3.2.0
value	String		3.2.0
description	String	The detailed description of the resource.	3.2.0
color	String		3.2.0
createDate	Timestamp	The creation date.	3.2.0
lastOpDate	Timestamp	The last operation date.	3.2.0
type	TagPatternType	See type .	3.2.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	3.2.0
ordinal	int		3.2.0

SDK Sample

Java SDK

```
QueryTagAction action = new QueryTagAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryTagAction.Result res = action.call();
```

Python SDK

```
QueryTagAction action = QueryTagAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryTagAction.Result res = action.call()
```

6.4.9 UpdateTag

API Request

URLs

```
PUT zstack/v1/tags/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateTag": {
    "value": "new-tag",
    "description": "tag-for-volume",
    "color": "#FFFFFF"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateTag":{"value":"new-tag","description":"tag-for-volume","color":"#FFFFFF"}}' http://localhost:8080/zstack/v1/tags/bc54e798f6ad4b9aa6a71365271d9464/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.2.0
name	String	body (contained in the updateTag structure)	Optional. The resource name.		3.2.0
value	String	body (contained in the updateTag structure)	Optional. The tag value.		3.2.0
description	String	body (contained in the updateTag structure)	Optional. The detailed description of the resource.		3.2.0
color	String	body (contained in the updateTag structure)	Optional. The tag color.		3.2.0
systemTags	List	body	Optional. The system tags.		3.2.0
userTags	List	body	Optional. The user tags.		3.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```



```
}
```

SDK Sample

Java SDK

```
UpdateTagAction action = new UpdateTagAction();
action.uuid = "a2bdf841dfdd48ecae5cabf44d0088e1";
action.value = "new-tag";
action.description = "tag-for-volume";
action.color = "#FFFFFF";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateTagAction.Result res = action.call();
```

Python SDK

```
UpdateTagAction action = UpdateTagAction()
action.uuid = "982dddc308b423baf8f82a74afc4e1c"
action.value = "new-tag"
action.description = "tag-for-volume"
action.color = "#FFFFFF"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateTagAction.Result res = action.call()
```

6.4.10 AttachTagToResources

API Request

URLs

```
POST zstack/v1/tags/{tagUuid}/resources
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "resourceUuids": [
      "bcd0e0f674aa47298dcbdc0efeffb55d"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"resourceUuids":
["80ed93103b624518ab0e642c6611bc0f"]}}' http://localhost:8080/zstack/
v1/tags/05811acb63e34f4c9c62b19a8eb4090b/resources
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
tagUuid	String	url	The tag UUID.		3.2.0
resourceUuids	List	body (contained in the params structure)	The resource UUID list.		3.2.0
tokens	Map	body (contained in the params structure)	Optional. The key and the value stored by the tag.		3.2.0
systemTags	List	body	Optional. The system tags.		3.2.0
userTags	List	body	Optional. The user tags.		3.2.0

API Response

**Note:**

After the API call succeeded, the success is returned as **true**. The number of successfully cloned VM instances can be returned by **numberOfClonedVm**. Actually, due to resource limitations, a portion of VM instances are cloned successfully, while another portion of VM instances fail to be cloned. The reason for each cloning failure is stored in the **error** field of **inventories**.

Sample Response

```
{
  "results": [
    {
      "inventory": {
        "tagPatternUuid": "f9060711c8453a2580f840d7aa1c5485",
        "uuid": "b2f817b3400232018956a4d2d198edc4",
        "resourceType": "DiskOfferingVO",
        "tag": "for-large-DB",
```

```

    "type": "User",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  },
  "success": true
}
]
}

```

Name	Type	Description	Starting Version
success	boolean		3.2.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.2.0
results	List	See results .	3.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.2.0
description	String	The brief description of the error.	3.2.0
details	String	The details about the error.	3.2.0
elaboration	String	The reserved field. Default value: null.	3.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.2.0

#results

Name	Type	Description	Starting Version
success	boolean		3.2.0
error	ErrorCode	See error .	3.2.0
inventory	UserTagInventory	See inventory .	3.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.2.0
description	String	The brief description of the error.	3.2.0
details	String	The details about the error.	3.2.0
elaboration	String	The reserved field. Default value: null.	3.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.2.0

#inventory

Name	Type	Description	Starting Version
tagPatternUuid	String		3.2.0
uuid	String	The resource UUID.	3.2.0
resourceUuid	String		3.2.0
resourceType	String		3.2.0

Name	Type	Description	Starting Version
tag	String		3.2.0
type	String		3.2.0
createDate	Timestamp	The creation date.	3.2.0
lastOpDate	Timestamp	The last operation date.	3.2.0
tagPattern	TagPatternInventory	See tagPattern .	3.2.0

#tagPattern

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.2.0
name	String	The resource name.	3.2.0
value	String		3.2.0
description	String	The detailed description of the resource.	3.2.0
color	String		3.2.0
createDate	Timestamp	The creation date.	3.2.0
lastOpDate	Timestamp	The last operation date.	3.2.0
type	TagPatternType	See type .	3.2.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	3.2.0
ordinal	int		3.2.0

SDK Sample

Java SDK

```
AttachTagToResourcesAction action = new AttachTagToResourcesAction();
action.tagUuid = "6369948f4523457b87c311c550aa3e16";
action.resourceUuids = asList("ae2fdc6bbd254fcb9c36ac174c87a31");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AttachTagToResourcesAction.Result res = action.call();
```

Python SDK

```
AttachTagToResourcesAction action = AttachTagToResourcesAction()
action.tagUuid = "1e9bee8a666340fe86599fa03962af90"
action.resourceUuids = [a4bb584d6c50401c98b7535dca839ba0]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachTagToResourcesAction.Result res = action.call()
```

6.4.11 DetachTagFromResources

API Request

URLs

```
DELETE zstack/v1/tags/{tagUuid}/resources?
resourceUuids={resourceUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/tags/
a8d23deaae2f4e7f96d11f066a180b92/resources?
resourceUuids=44f7b0ec930f458c9f4e7705ad7a0cb9
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
tagUuid	String	url	The tag UUID.		3.2.0
resourceUuids	List	url	The resource UUID list.		3.2.0
systemTags	List	body	Optional. The system tags.		3.2.0
userTags	List	body	Optional. The user tags.		3.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DetachTagFromResourcesAction action = new DetachTagFromResourcesAction
();
action.tagUuid = "09f0323668dc47fdac599724f1e6eb26";
action.resourceUuids = asList("170664525bde452db0923d200ac8e57b");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachTagFromResourcesAction.Result res = action.call();
```

Python SDK

```
DetachTagFromResourcesAction action = DetachTagFromResourcesAction()
action.tagUuid = "ff438628636242909e58eed72696aae8"
action.resourceUuids = [7719cc49d1574d479316d43f77183899]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachTagFromResourcesAction.Result res = action.call()
```

6.5 Migration Service (Plus)

The V2V Migration Service is a separate feature module. To use this feature, you need to purchase both the Base License and the Plus License of V2V Migration Service. The Plus License cannot be used independently.

6.5.1 Migration Service Operations

6.5.1.1 AddV2VConversionHost

API Request

URLs

```
POST zstack/v1/v2v-conversion-hosts
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "V2V-Converter-01",
    "description": "to convert vm from foreign hypervisor",
    "type": "VMWARE",
    "hostUuid": "fc2971a1a5943bdda6733feecfb26861",
    "storagePath": "/path/to/large/directory/"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"V2V-Converter-01","description":"to
convert vm from foreign
hypervisor","type":"VMWARE","hostUuid":"fc2971a1a5943bdda6733feecfb26861","storage
path/to/large/directory/"}}' http://localhost:8080/zstack/v1/v2v-
conversion-hosts
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in	The resource name.		3.0.1

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.0.1
type	String	body (contained in the params structure)	The type of the V2V conversion host.	• VMWARE	3.0.1
hostUuid	String	body (contained in the params structure)	The host UUID.		3.0.1
storagePath	String	body (contained in the params structure)	The image storage path of the V2V migration.		3.0.1
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		3.0.1
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.4.0
systemTags	List	body	Optional. The system tags.		3.0.1
userTags	List	body	Optional. The user tags.		3.0.1

**Note:**

- When you add a V2V conversion host in ZStack Cloud, you can specify the CIDR for the V2V migration network by adding the **networkcidr** option to **SystemTags**. The SystemTag is passed by using the **networkcidr** parameter.

- Format of the **networkcidr** option: `conversion::network::cidr::{netcidr}`
- Example: `conversion::network::cidr::{10.0.0.1/24}`.

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "c6ac169863173a9bb5742974d731a242",
    "name": "V2V-Converter-01",
    "description": "to convert vm from foreign hypervisor",
    "type": "VMWARE",
    "hostUuid": "dcffe404cd0336a5817bfba0e56117ac",
    "storagePath": "/path/to/large/directory/",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.1
inventory	V2VConversionHostInventory	See inventory .	3.0.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.1
description	String	The brief description of the error.	3.0.1
details	String	The details about the error.	3.0.1
elaboration	String	The reserved field. Default value: null.	3.0.1

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.1
name	String	The resource name.	3.0.1
description	String	The detailed description of the resource.	3.0.1
type	String	The type.	3.0.1
hostUuid	String	The host UUID.	3.0.1
storagePath	String	The image storage path of the V2V migration.	3.0.1
state	String	The state.	3.0.1
createDate	Timestamp	The creation date.	3.0.1
lastOpDate	Timestamp	The last operation date.	3.0.1

#

SDK Sample

Java SDK

```
AddV2VConversionHostAction action = new AddV2VConversionHostAction();
action.name = "V2V-Converter-01";
action.description = "to convert vm from foreign hypervisor";
action.type = "VMWARE";
action.hostUuid = "fc2971a1a5943bdda6733feecfb26861";
action.storagePath = "/path/to/large/directory/";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AddV2VConversionHostAction.Result res = action.call();
```

Python SDK

```
AddV2VConversionHostAction action = AddV2VConversionHostAction()
action.name = "V2V-Converter-01"
action.description = "to convert vm from foreign hypervisor"
action.type = "VMWARE"
action.hostUuid = "fc2971a1a5943bdda6733feecfb26861"
action.storagePath = "/path/to/large/directory/"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddV2VConversionHostAction.Result res = action.call()
```

6.5.1.2 ChangeV2VConversionHostState

API Request

URLs

```
PUT zstack/v1/v2v-conversion-hosts/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeV2VConversionHostState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeV2VConversionHostState":{"stateEvent":"disable"}}'
http://localhost:8080/zstack/v1/v2v-conversion-
hosts/99c4cb23248e37aeb54037578aaa120f/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.1
stateEvent	String	body (contained in the changeV2VConverHostState structure)	The state event.	- enable - disable	3.0.1
systemTags	List	body	Optional. The system tags.		3.0.1
userTags	List	body	Optional. The user tags.		3.0.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ac5f6b519b86352faa5e1d94ad5461d8",
    "name": "new-name",
    "description": "new description",
    "type": "VMWARE",
    "hostUuid": "d5d8d26dfc913c9aa8f220a238b9e0bb",
    "storagePath": "/path/to/large/directory/",
    "state": "Disabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.1
inventory	V2VConversionHostInventory	See inventory .	3.0.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.1
description	String	The brief description of the error.	3.0.1
details	String	The details about the error.	3.0.1
elaboration	String	The reserved field. Default value: null.	3.0.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.1

inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.1
name	String	The resource name.	3.0.1
description	String	The detailed description of the resource.	3.0.1
type	String	The type.	3.0.1
hostUuid	String	The host UUID.	3.0.1
storagePath	String	The image storage path of the V2V migration.	3.0.1
state	String	The state.	3.0.1
createDate	Timestamp	The creation date.	3.0.1

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.0.1

SDK Sample

Java SDK

```
ChangeV2VConversionHostStateAction action = new ChangeV2VConversionHostStateAction();
action.uuid = "99c4cb23248e37aeb54037578aaa120f";
action.stateEvent = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeV2VConversionHostStateAction.Result res = action.call();
```

Python SDK

```
ChangeV2VConversionHostStateAction action = ChangeV2VConversionHostStateAction()
action.uuid = "99c4cb23248e37aeb54037578aaa120f"
action.stateEvent = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeV2VConversionHostStateAction.Result res = action.call()
```

6.5.1.3 ConvertVmFromForeignHypervisor

API Request

URLs

```
POST zstack/v1/v2vs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "url": "vmware://155cb773228d346ba8ed1135d48f3718",
    "name": "VM-1",
    "description": "vm migrated from foreign hypervisor",
    "conversionHostUuid": "30099212bdc030ad8c2d9634f8104fb0",
    "cpuNum": 1.0,
    "memorySize": 1.073741824E9,
    "clusterUuid": "336cdcfc4a3c3757b4fd77e7340ee322",
    "primaryStorageUuid": "40de3bc8e79c31cb9f052546e162524b",
    "l3NetworkUuids": [
      "5ad0b57788373ec7b805fd54246b1a33"
    ],
    "defaultL3NetworkUuid": "5ad0b57788373ec7b805fd54246b1a33",
    "platform": "Linux",
```

```

    "strategy": "InstantStart",
    "convertStrategy": "CapacityOptimized",
    "pauseVm": false
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"url": "vmware://155cb773228d346ba8ed1135d48f3718", "name": "VM-1", "description": "V
migrated from foreign
hypervisor", "conversionHostUuid": "30099212bdc030ad8c2d9634f8104fb0", "cpuNum": 1.6
["5ad0b57788373ec7b805fd54246b1a33"], "defaultL3NetworkUuid": "5ad0b57788373ec7b805
http://localhost:8080/zstack/v1/v2vs

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
url	String	body (contained in the params structure)	The source VM instance URL.		3.0.1
name	String	body (contained in the params structure)	The resource name.		3.0.1
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.0.1
conversionHostUuid	String	body (contained in the params structure)	Optional. The V2V conversion host UUID.		3.0.1
cpuNum	Integer	body (contained in	The CPU count.		3.0.1

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
memorySize	Long	body (contained in the params structure)	The memory size.		3.0.1
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID.		3.0.1
clusterUuid	String	body (contained in the params structure)	Optional. The cluster UUID.		3.0.1
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		3.0.1
primaryStorageUuid	String	body (contained in the params structure)	The primary storage UUID.		3.0.1
l3NetworkUuids	List	body (contained in the params structure)	The L3 network UUID list.		3.0.1
defaultL3NetworkUuid	String	body (contained in the params structure)	Optional. The UUID of the default L3 network.		3.0.1
platform	String	body (contained in the params structure)	Optional. The platform.	- Linux - Windows - WindowsVirtio - Paravirtualization	3.0.1

Name	Type	Location	Description	Optional Value	Starting Version
				Other	
type	String	body (contained in the params structure)	Optional. The VM instance type.	- UserVm - ApplianceVm	3.0.1
strategy	String	body (contained in the params structure)	Optional. The V2V migration strategy, which determines whether the target VM instance will be started immediately after migration.	- InstantStart - JustConvert	3.0.1
longJobName	String	body (contained in the params structure)	Optional. The migration job name.		3.0.1
longJobDescription	String	body (contained in the params structure)	Optional. The migration job description.		3.0.1
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID of the V2V migration job.		3.0.1
convertStrategy	String	body (contained in the params structure)	Optional.		3.6.0
sshPrivKey	String	body (contained in	Optional. The private key that is used		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	to verify SSH login.		
pauseVm	boolean	body (contained in the params structure)	Optional. Whether to pause the VM instance before migration.		3.6.0
volumeFilters	List	body (contained in the params structure)	Optional. The volume filter information.		3.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.6.0
systemTags	List	body	Optional. The system tags.		3.0.1
userTags	List	body	Optional. The user tags.		3.0.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "58c143053914375e94529a5590c64f95"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.1
inventory	LongJobInventory	See inventory .	3.0.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.1
description	String	The detailed description of the error.	3.0.1
details	String	The details about the error.	3.0.1
elaboration	String	The reserved field. Default value: null.	3.0.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.1
name	String	The resource name.	3.0.1
description	String	The detailed description of the resource.	3.0.1
apild	String	The API ID used to associate with the task progress.	3.0.1
jobName	String	The job name.	3.0.1
jobData	String	The job data.	3.0.1
jobResult	String	The job result.	3.0.1

Name	Type	Description	Starting Version
targetResourceUuid	String	The target resource UUID.	3.0.1
managementNodeUuid	String	The management node UUID.	3.0.1
createDate	Timestamp	The creation date.	3.0.1
lastOpDate	Timestamp	The last operation date.	3.0.1
state	LongJobState	See state .	3.0.1

#state

Name	Type	Description	Starting Version
name	String	The resource name.	3.0.1
ordinal	int		3.0.1

SDK Sample

Java SDK

```

ConvertVmFromForeignHypervisorAction action = new ConvertVmFromForeign
HypervisorAction();
action.url = "vmware://155cb773228d346ba8ed1135d48f3718";
action.name = "VM-1";
action.description = "vm migrated from foreign hypervisor";
action.conversionHostUuid = "30099212bdc030ad8c2d9634f8104fb0";
action.cpuNum = 1.0;
action.memorySize = 1.073741824E9;
action.clusterUuid = "336cdcfc4a3c3757b4fd77e7340ee322";
action.primaryStorageUuid = "40de3bc8e79c31cb9f052546e162524b";
action.l3NetworkUuids = asList("5ad0b57788373ec7b805fd54246b1a33");
action.defaultL3NetworkUuid = "5ad0b57788373ec7b805fd54246b1a33";
action.platform = "Linux";
action.strategy = "InstantStart";
action.convertStrategy = "CapacityOptimized";
action.pauseVm = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ConvertVmFromForeignHypervisorAction.Result res = action.call();

```

Python SDK

```

ConvertVmFromForeignHypervisorAction action = ConvertVmFromForeign
HypervisorAction()
action.url = "vmware://155cb773228d346ba8ed1135d48f3718"
action.name = "VM-1"
action.description = "vm migrated from foreign hypervisor"
action.conversionHostUuid = "30099212bdc030ad8c2d9634f8104fb0"
action.cpuNum = 1.0
action.memorySize = 1.073741824E9

```

```
action.clusterUuid = "336cdcfc4a3c3757b4fd77e7340ee322"  
action.primaryStorageUuid = "40de3bc8e79c31cb9f052546e162524b"  
action.l3NetworkUuids = [5ad0b57788373ec7b805fd54246b1a33]  
action.defaultL3NetworkUuid = "5ad0b57788373ec7b805fd54246b1a33"  
action.platform = "Linux"  
action.strategy = "InstantStart"  
action.convertStrategy = "CapacityOptimized"  
action.pauseVm = false  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
ConvertVmFromForeignHypervisorAction.Result res = action.call()
```

6.5.1.4 DeleteV2VConversionHost

API Request

URLs

```
DELETE zstack/v1/v2v-conversion-hosts/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X DELETE http://localhost:8080/zstack/v1/v2v-conversion-  
hosts/5392899dcf7d351eab91ceeb6d38d4e5?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.1
deleteMode	String	url	Optional. The delete mode.		3.0.1
systemTags	List	body	Optional. The system tags.		3.0.1
userTags	List	body	Optional. The user tags.		3.0.1

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteV2VConversionHostAction action = new DeleteV2VConversionHostAction();
action.uuid = "5392899dcf7d351eab91ceeb6d38d4e5";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteV2VConversionHostAction.Result res = action.call();
```

Python SDK

```
DeleteV2VConversionHostAction action = DeleteV2VConversionHostAction()
action.uuid = "5392899dcf7d351eab91ceeb6d38d4e5"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteV2VConversionHostAction.Result res = action.call()
```

6.5.1.5 QueryV2VConversionHost

API Request

URLs

```
GET zstack/v1/v2v-conversion-hosts
GET zstack/v1/v2v-conversion-hosts/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/v2v-conversion-hosts?
q=uuid=4fb0bf1bce02350a9a19277897bc0595
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/v2v-conversion-hosts/
beb30505a0b434b68c1b68565290ebcf
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryV2VConversionHost**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "91f0ea12823a39dea9db5d1cab133e3f",
      "name": "V2V-Converter-01",
      "description": "to convert vm from foreign hypervisor",
      "type": "VMWARE",
      "hostUuid": "f773c300a8343774bc45e0ea3980d6da",
      "storagePath": "/path/to/large/directory/",
      "state": "Enabled"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.1
inventories	List	See inventories .	3.0.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.1
description	String	The brief description of the error.	3.0.1

Name	Type	Description	Starting Version
details	String	The details about the error.	3.0.1
elaboration	String	The reserved field. Default value: null.	3.0.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.1

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.1
name	String	The resource name.	3.0.1
description	String	The detailed description of the resource.	3.0.1
type	String	The type.	3.0.1
hostUuid	String	The host UUID.	3.0.1
storagePath	String	The image storage path of the V2V migration.	3.0.1
state	String	The state.	3.0.1
createDate	Timestamp	The creation date.	3.0.1
lastOpDate	Timestamp	The last operation date.	3.0.1

SDK Sample

Java SDK

```
QueryV2VConversionHostAction action = new QueryV2VConversionHostAction();
action.conditions = asList("uuid=fbc030b04f5f3249bb1e6dad82489102");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryV2VConversionHostAction.Result res = action.call();
```

Python SDK

```
QueryV2VConversionHostAction action = QueryV2VConversionHostAction()
action.conditions = ["uuid=7e845caa39013c19b3c4ea9630bdfef1"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryV2VConversionHostAction.Result res = action.call()
```

6.5.1.6 UpdateV2VConversionHost

API Request

URLs

```
PUT zstack/v1/v2v-conversion-hosts/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateV2VConversionHost": {
    "name": "new-name",
    "description": "new description",
    "storagePath": "/path/to/new/large/directory/"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateV2VConversionHost":{"name":"new-name","description":"new description","storagePath":"/path/to/new/large/directory/"},"systemTags":[],"userTags":[]}' http://localhost:8080/zstack/v1/v2v-conversion-hosts/077ec852bf603aa7b2ad7159e7707251/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.1
name	String	body (contained in the updateV2VConversionHost structure)	Optional. The resource name.		3.0.1
description	String	body (contained in the updateV2VConversionHost structure)	Optional. The detailed description of the resource.		3.0.1
storagePath	String	body (contained in the updateV2VConversionHost structure)	Optional. The image storage path of the V2V migration.		3.0.1
systemTags	List	body	Optional. The system tags.		3.0.1
userTags	List	body	Optional. The user tags.		3.0.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "fae22298c74b381b9dc0abcb02e7a3d7",
    "name": "new-name",
    "description": "new description",
    "type": "VMWARE",
    "hostUuid": "fd0aa0e947d535f4985fd4fef8b309e7",
    "storagePath": "/path/to/large/directory/",
    "state": "Enabled"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.1
inventory	V2VConversionHostInventory	See inventory .	3.0.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.1
description	String	The brief description of the error.	3.0.1
details	String	The details about the error.	3.0.1
elaboration	String	The reserved field. Default value: null.	3.0.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.1

Name	Type	Description	Starting Version
name	String	The resource name.	3.0.1
description	String	The detailed description of the resource.	3.0.1
type	String	The type.	3.0.1
hostUuid	String	The host UUID.	3.0.1
storagePath	String	The image storage path of the V2V migration.	3.0.1
state	String	The state.	3.0.1
createDate	Timestamp	The creation date.	3.0.1
lastOpDate	Timestamp	The last operation date.	3.0.1

SDK Sample

Java SDK

```
UpdateV2VConversionHostAction action = new UpdateV2VConversionHostAction();
action.uuid = "077ec852bf603aa7b2ad7159e7707251";
action.name = "new-name";
action.description = "new description";
action.storagePath = "/path/to/new/large/directory/";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateV2VConversionHostAction.Result res = action.call();
```

Python SDK

```
UpdateV2VConversionHostAction action = UpdateV2VConversionHostAction()
action.uuid = "077ec852bf603aa7b2ad7159e7707251"
action.name = "new-name"
action.description = "new description"
action.storagePath = "/path/to/new/large/directory/"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateV2VConversionHostAction.Result res = action.call()
```

7 Operations Management

7.1 Tenant Management (Plus)

The Tenant Management feature is a separate feature module. To use this feature, you need to purchase both the Base License and the Plus License of Tenant Management. The Plus License cannot be used independently.

7.1.1 Organization Operations

7.1.1.1 CreateIAM2Organization

API Request

URLs

```
POST /v1/iam2/organizations
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "org1",
    "type": "Company",
    "parentUuid": "398f147aef0347099c16548bce0ceca1",
    "attributes": [
      {
        "name": "some-attribute-name",
        "value": "attribute-value"
      }
    ],
    "quota": {
      "vm.num": 100.0
    }
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"org1","type":"Company","parentUuid":"1c26fe0d3e384ac9bf67ce4340d65413"},
[{"name":"some-attribute-name","value":"attribute-value"}]}' http://
localhost:8080/zstack/v1/iam2/organizations
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.4.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.4.0
type	OrganizationType	body (contained in the params structure)	The organization type.	- Company - Department	2.4.0
parentUuid	String	body (contained in the params structure)	Optional.		2.4.0
attributes	List	body (contained in the params structure)	Optional.		2.4.0
quota	List	body (contained in the params structure)	Optional. The quota.		4.3.6
resourceUuid	String	body (contained in the params structure)	Optional.		2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d8880014345347e1ab945d8ef750fac7",
    "name": "org1",
    "state": "Enabled",
    "type": "Company",
    "srcType": "ZStack",
    "parentUuid": "1dffd2c40215412d8ab4b811ce6888f0",
    "rootOrganizationUuid": "a531128bc8724f0ba55a85c425f22c32",
    "attributes": [
      {
        "uuid": "053353cf77d6493daef4de70c9ff8d24",
        "name": "attribute-name",
        "value": "attribute-value",
        "type": "Customized"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2OrganizationInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	2.4.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
parentUuid	String		2.4.0
state	State	See state .	2.4.0
type	OrganizationType	See type .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
organizationUuid	String		2.4.0
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
CreateIAM20organizationAction action = new CreateIAM20organizationAction();
action.name = "org1";
action.type = "Company";
action.parentUuid = "1d650e96108c47a297a7529d45afef97";
action.attributes = asList([name:some-attribute-name, value:attribute-value]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateIAM20organizationAction.Result res = action.call();
```

Python SDK

```
CreateIAM20organizationAction action = CreateIAM20organizationAction()
action.name = "org1"
```

```

action.type = "Company"
action.parentUuid = "a7faaafa84ae4345957fd7e61434481b"
action.attributes = [[name:some-attribute-name, value:attribute-value
]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateIAM2OrganizationAction.Result res = action.call()

```

7.1.1.2 DeleteIAM2Organization

API Request

URLs

```
DELETE /v1/iam2/organizations/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/organizations/
b30d1f09a0df3f708bba1208ade2aa90?deleteMode=Permissive

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
deleteMode	String	url	Optional. The delete mode.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",

```

```

    "details": "Create VM on KVM timeout after 300s"
  }
}

```

SDK Sample

Java SDK

```

DeleteIAM2OrganizationAction action = new DeleteIAM2OrganizationAction
();
action.uuid = "b30d1f09a0df3f708bba1208ade2aa90";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteIAM2OrganizationAction.Result res = action.call();

```

Python SDK

```

DeleteIAM2OrganizationAction action = DeleteIAM2OrganizationAction()
action.uuid = "b30d1f09a0df3f708bba1208ade2aa90"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteIAM2OrganizationAction.Result res = action.call()

```

7.1.1.3 QueryIAM2Organization

API Request

URLs

```
GET zstack/v1/iam2/organizations
```

```
GET zstack/v1/iam2/organizations/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/organizations?q=name=test

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/organizations/
e09768162e273e56aaffa649184585e3

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIAM2Organization**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "22e5c247ec02478286a1fccfdaa9a2d3",
      "name": "org1",
      "state": "Enabled",
      "type": "Company",
      "parentUuid": "3714d14d9b78487e983236a5ae65a190",
      "attributes": [
        {
          "uuid": "ee3bccfce21243cfbfc03cce1118b929",
          "name": "attribute-name",
          "value": "attribute-value",
          "type": "Customized"
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventories	List	See inventories .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
parentUuid	String		2.4.0
state	State	See state .	2.4.0
type	OrganizationType	See type .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
organizationUuid	String		2.4.0
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
QueryIAM2OrganizationAction action = new QueryIAM2OrganizationAction()  
();  
action.conditions = asList("name=test");  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
QueryIAM2OrganizationAction.Result res = action.call();
```

Python SDK

```
QueryIAM2OrganizationAction action = QueryIAM2OrganizationAction()  
action.conditions = ["name=test"]  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryIAM2OrganizationAction.Result res = action.call()
```

7.1.1.4 UpdateIAM2Organization

API Request

URLs

```
PUT zstack/v1/iam2/organizations/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateIAM2Organization": {
    "name": "new-name",
    "description": "new-description",
    "parentUuid": "56bf430cab663c908d1ebe7ab28e5e90"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateIAM2Organization":{"name":"new-name","description":"new-description","parentUuid":"56bf430cab663c908d1ebe7ab28e5e90"}}'
http://localhost:8080/zstack/v1/iam2/organizations/f68813583328377fa44bb72d75a13ed5/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the updateIAM2 Organization structure)	Optional. The resource name.		2.4.0
description	String	body (contained in the updateIAM2 Organization structure)	Optional. The detailed description of the resource.		2.4.0
parentUuid	String	body (contained in the updateIAM2 Organization structure)	Optional.		2.4.0
type	OrganizationType	body (contained in the updateIAM2 Organization structure)	Optional.	- Company - Department	2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3f0315c83d524c0fa0da9be22c1cd58e",
    "name": "org1",
    "state": "Enabled",
    "type": "Company",
    "parentUuid": "8b15e39fb62a43089610103be30c17b5",
    "attributes": [
      {
```

```

    "uuid": "5dd14ca022554b22938d94c27de872fb",
    "name": "attribute-name",
    "value": "attribute-value",
    "type": "Customized"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2OrganizationInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
parentUuid	String		2.4.0
state	State	See state .	2.4.0
type	OrganizationType	See type .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
organizationUuid	String		2.4.0
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
UpdateIAM2OrganizationAction action = new UpdateIAM2OrganizationAction();
action.uuid = "f68813583328377fa44bb72d75a13ed5";
action.name = "new-name";
action.description = "new-description";
action.parentUuid = "56bf430cab663c908d1ebe7ab28e5e90";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateIAM2OrganizationAction.Result res = action.call();
```

Python SDK

```
UpdateIAM2OrganizationAction action = UpdateIAM2OrganizationAction()
action.uuid = "f68813583328377fa44bb72d75a13ed5"
action.name = "new-name"
action.description = "new-description"
action.parentUuid = "56bf430cab663c908d1ebe7ab28e5e90"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateIAM2OrganizationAction.Result res = action.call()
```

7.1.1.5 ChangelAM2OrganizationParent

API Request

URLs

```
PUT zstack/v1/iam2/organizations/{parentUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeIAM2OrganizationParent": {
    "childrenUuids": [
      "b71dcc43656f399c82b09a379d1d6a74",
      "220c9c0ec8a53c37b9c680b0deed7563"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeIAM2OrganizationParent":{"childrenUuids":
["b71dcc43656f399c82b09a379d1d6a74","220c9c0ec8a53c37b9c680b0deed7563"]}}'
http://localhost:8080/zstack/v1/iam2/
organizations/4fef501c5ba331f496907f642f609ea3/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
parentUuid	String	url			2.4.0
childrenUuids	List	body (contained in the changeIAM2 OrganizationParent structure)			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
ChangeIAM2OrganizationParentAction action = new ChangeIAM2OrganizationParentAction();
action.parentUuid = "4fef501c5ba331f496907f642f609ea3";
action.childrenUuids = asList("b71dcc43656f399c82b09a379d1d6a74", "220c9c0ec8a53c37b9c680b0deed7563");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeIAM2OrganizationParentAction.Result res = action.call();
```

Python SDK

```
ChangeIAM2OrganizationParentAction action = ChangeIAM2OrganizationParentAction()
action.parentUuid = "4fef501c5ba331f496907f642f609ea3"
action.childrenUuids = [b71dcc43656f399c82b09a379d1d6a74, 220c9c0ec8a53c37b9c680b0deed7563]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeIAM2OrganizationParentAction.Result res = action.call()
```

7.1.1.6 ChangeIAM2OrganizationState

API Request

URLs

```
PUT zstack/v1/iam2/organizations/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeIAM2OrganizationState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeIAM2OrganizationState":
{"stateEvent":"enable"}}' http://localhost:8080/zstack/v1/iam2/
organizations/61e292aa7d3f3796a313c338214e0f34/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
stateEvent	StateEvent	body (contained in the changeIAM2OrganizationState structure)		- enable - disable	2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "c62fea9f96644a9cb5ba1ba383a9335c",
    "name": "org1",
    "state": "Enabled",
    "type": "Company",
    "parentUuid": "80f101e520f94f958b1357f7d7a3dc37",
    "attributes": [
      {
        "uuid": "754a49f70fcb46ad879b347447af7b25",
        "name": "attribute-name",
        "value": "attribute-value",
        "type": "Customized"
      }
    ]
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2OrganizationInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
parentUuid	String		2.4.0
state	State	See state .	2.4.0
type	OrganizationType	See type .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
organizationUuid	String		2.4.0
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
ChangeIAM2OrganizationStateAction action = new ChangeIAM2OrganizationStateAction();
action.uuid = "61e292aa7d3f3796a313c338214e0f34";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeIAM2OrganizationStateAction.Result res = action.call();
```

Python SDK

```
ChangeIAM2OrganizationStateAction action = ChangeIAM2OrganizationStateAction()
action.uuid = "61e292aa7d3f3796a313c338214e0f34"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeIAM2OrganizationStateAction.Result res = action.call()
```

7.1.1.7 RemoveAttributesFromIAM2Organization

API Request

URLs

```
DELETE zstack/v1/iam2/organizations/{uuid}/attributes?
attributeUuids={attributeUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/
organizations/7783a8869e6a31a29562fb58dfdcc69/attributes?
attributeUuids=cdec45ca22a43b47942268b3dc90bc43&attributeUuids=f6febd00a2633bd98c
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
attributeUuids	List	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveAttributesFromIAM2OrganizationAction action = new RemoveAttr
ibutesFromIAM2OrganizationAction();
action.uuid = "7783a8869e6a31a29562fb58dfdccc69";
action.attributeUuids = asList("cdec45ca22a43b47942268b3dc90bc43", "
f6febd00a2633bd98d8763ffdf1b693");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveAttributesFromIAM2OrganizationAction.Result res = action.call();
```

Python SDK

```
RemoveAttributesFromIAM2OrganizationAction action = RemoveAttr
ibutesFromIAM2OrganizationAction()
action.uuid = "7783a8869e6a31a29562fb58dfdccc69"
action.attributeUuids = [cdec45ca22a43b47942268b3dc90bc43, f6febd00a2
633bd98d8763ffdf1b693]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveAttributesFromIAM2OrganizationAction.Result res = action.call()
```

7.1.1.8 RemoveIAM2VirtualIDsFromOrganization

API Request

URLs

```
DELETE zstack/v1/iam2/organizations/{organizationUuid}/virtual-ids?
virtualIDUuids={virtualIDUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/
organizations/a28a5646a6ed32b2b854af830709d05c/virtual-ids?
virtualIDUuids=f998d391462734c69998072fc801b96c&virtualIDUuids=df9c6eeb32df35558b
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
virtualIDUuids	List	url			2.4.0
organizationUuid	String	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
RemoveIAM2VirtualIDsFromOrganizationAction action = new RemoveIAM2VirtualIDsFromOrganizationAction();
action.virtualIDUuids = asList("f998d391462734c69998072fc801b96c", "df9c6eeb32df35558b8dd214f2527a23");
action.organizationUuid = "a28a5646a6ed32b2b854af830709d05c";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveIAM2VirtualIDsFromOrganizationAction.Result res = action.call();
```

Python SDK

```
RemoveIAM2VirtualIDsFromOrganizationAction action = RemoveIAM2VirtualIDsFromOrganizationAction()
action.virtualIDUuids = [f998d391462734c69998072fc801b96c, df9c6eeb32df35558b8dd214f2527a23]
action.organizationUuid = "a28a5646a6ed32b2b854af830709d05c"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveIAM2VirtualIDsFromOrganizationAction.Result res = action.call()
```

7.1.1.9 CreateIAM2VirtualID

API Request

URLs

```
POST zstack/v1/iam2/virtual-ids
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "id1",
    "password": "password",
    "attributes": [
      {
        "name": "some-attribute-name",
        "value": "attribute-value"
      }
    ],
    "projectUuid": "fbc22f14b3873e30b4439d973ab2f817",
    "organizationUuid": "5fef6c4ca6e63c7fa5e82d1437190ebe",
    "withoutDefaultRole": false
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"id1","password":"password","attributes":
[{"name":"some-attribute-name","value":"attribute-
value"}],"projectUuid":"fbc22f14b3873e30b4439d973ab2f817","organizationUuid":"5fe
http://localhost:8080/zstack/v1/iam2/virtual-ids
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.4.0
password	String	body (contained in the params structure)			2.4.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.4.0
attributes	List	body (contained in the params structure)	Optional.		2.4.0
projectUuid	String	body (contained in the params structure)	Optional.		2.4.0
organizationUuid	String	body (contained in	Optional.		2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
resourceUuid	String	body (contained in the params structure)	Optional.		2.4.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "894f1c5bf6714a76b08324c69b8cac7c",
    "name": "id1",
    "state": "Enabled",
    "attributes": [
      {
        "uuid": "04f039d7f3f04dc5a1b6bf9fe93e6cdd",
        "name": "attribute-name",
        "value": "attribute-value",
        "type": "Customized"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2VirtualIDInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
state	State	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
CreateIAM2VirtualIDAction action = new CreateIAM2VirtualIDAction();
action.name = "id1";
action.password = "password";
action.attributes = asList([name:some-attribute-name, value:attribute-value]);
action.projectUuid = "fbc22f14b3873e30b4439d973ab2f817";
action.organizationUuid = "5fef6c4ca6e63c7fa5e82d1437190ebe";
action.withoutDefaultRole = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateIAM2VirtualIDAction.Result res = action.call();
```

Python SDK

```
CreateIAM2VirtualIDAction action = CreateIAM2VirtualIDAction()
action.name = "id1"
action.password = "password"
action.attributes = [[name:some-attribute-name, value:attribute-value
]]
action.projectUuid = "fbc22f14b3873e30b4439d973ab2f817"
action.organizationUuid = "5fef6c4ca6e63c7fa5e82d1437190ebe"
action.withoutDefaultRole = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateIAM2VirtualIDAction.Result res = action.call()
```

7.1.1.10 DeleteIAM2VirtualID

API Request

URLs

```
DELETE zstack/v1/iam2/virtual-ids/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/virtual-ids/
b141cd136a1f384d9e8e68319f8e1281?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
deleteMode	String	url	Optional. The delete mode.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteIAM2VirtualIDAction action = new DeleteIAM2VirtualIDAction();
action.uuid = "b141cd136a1f384d9e8e68319f8e1281";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteIAM2VirtualIDAction.Result res = action.call();
```

Python SDK

```
DeleteIAM2VirtualIDAction action = DeleteIAM2VirtualIDAction()
action.uuid = "b141cd136a1f384d9e8e68319f8e1281"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteIAM2VirtualIDAction.Result res = action.call()
```

7.1.1.11 QueryIAM2VirtualID

API Request

URLs

```
GET zstack/v1/iam2/virtual-ids
```

```
GET zstack/v1/iam2/virtual-ids/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/virtual-ids?q=name=test
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/virtual-ids/53c8b09e9ea63679add5c2003c4ce1cd
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIAM2VirtualID**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "e6e349e2d3e94ad39d2d620366de2b33",
      "name": "id1",
      "state": "Enabled",
      "attributes": [
        {
          "uuid": "fcd5e53a4bc44906a31e93012b46dab1",
          "name": "attribute-name",
          "value": "attribute-value",
          "type": "Customized"
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventories	List	See inventories .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
state	State	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
QueryIAM2VirtualIDAction action = new QueryIAM2VirtualIDAction();
action.conditions = asList("name=test");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryIAM2VirtualIDAction.Result res = action.call();
```

Python SDK

```
QueryIAM2VirtualIDAction action = QueryIAM2VirtualIDAction()
action.conditions = ["name=test"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryIAM2VirtualIDAction.Result res = action.call()
```

7.1.1.12 LoginIAM2VirtualID**API Request**

URLs

```
PUT zstack/v1/iam2/virtual-ids/login
```

Body

```
{
  "loginIAM2VirtualID": {
    "name": "id1",
    "password": "password"
  },
  "systemTags": [],
  "userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-X PUT -d '{"loginIAM2VirtualID":
{"name":"id1","password":"password"}}' http://localhost:8080/zstack/
v1/iam2/virtual-ids/login
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the loginIAM2VirtualID structure)	The resource name.		2.4.0
password	String	body (contained in the loginIAM2VirtualID structure)			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0
captchaUuid	String	body (contained in the loginIAM2VirtualID structure)	Optional.		2.4.0
verifyCode	String	body (contained in the loginIAM2VirtualID structure)	Optional.		2.4.0
clientInfo	Map	body (contained in the loginIAM2VirtualID structure)	Optional. The client information.		3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		irtualID structure)			

**Note:**

- When you log in to ZStack Cloud as a user, you can use the two-factor authentication method by adding the **twofatoken** option to **SystemTags**.
 - Format of the **twofatoken** option: twofatoken::6-digit two-factor authentication code
 - Example: twofatoken::123456

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7fcdc9d9e4bf3d8681a4472f38951dc0",
    "noSessionEvaluation": false
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	SessionInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
accountUuid	String	The account UUID.	2.4.0
userUuid	String	The user UUID.	2.4.0
expiredDate	Timestamp		2.4.0
createDate	Timestamp	The creation date.	2.4.0

SDK Sample

Java SDK

```
LoginIAM2VirtualIDAction action = new LoginIAM2VirtualIDAction();  
action.name = "id1";  
action.password = "password";  
LoginIAM2VirtualIDAction.Result res = action.call();
```

Python SDK

```
LoginIAM2VirtualIDAction action = LoginIAM2VirtualIDAction()  
action.name = "id1"  
action.password = "password"
```

```
LoginIAM2VirtualIDAction.Result res = action.call()
```

7.1.1.13 ChangeIAM2VirtualIDState

API Request

URLs

```
PUT zstack/v1/iam2/virtual-ids/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeIAM2VirtualIDState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeIAM2VirtualIDState":{"stateEvent":"enable"}}'
http://localhost:8080/zstack/v1/iam2/virtual-ids/
cc723702dcc24fafba542aa64d953d58/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
stateEvent	StateEvent	body (contained in the changeIAM2		- enable - disable	2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
		VirtualIDState structure)			
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "0524ea53082646569dfbc1bdecc82b70",
    "name": "id1",
    "state": "Enabled",
    "attributes": [
      {
        "uuid": "9eb16e277f1f412890e0fa8f6b76d432",
        "name": "attribute-name",
        "value": "attribute-value",
        "type": "Customized"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2VirtualIDInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	2.4.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
state	State	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
ChangeIAM2VirtualIDStateAction action = new ChangeIAM2VirtualIDStateAction();
action.uuid = "028961c0f40b4a63b8bf8f8fb6da2e6a";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeIAM2VirtualIDStateAction.Result res = action.call();
```

Python SDK

```
ChangeIAM2VirtualIDStateAction action = ChangeIAM2VirtualIDStateAction()
action.uuid = "7a40071d17b74e8085fb41c1e6f2216b"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeIAM2VirtualIDStateAction.Result res = action.call()
```

7.1.1.14 AddIAM2VirtualIDsToOrganization

API Request

URLs

```
POST zstack/v1/iam2/organizations/{organizationUuid}/virtual-ids
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "virtualIDUuids": [
      "e747d2bd298c38aab5ac7ee561377845",
      "8bda3c55564031bc9666cd6607e1aa6f"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"virtualIDUuids":
["e747d2bd298c38aab5ac7ee561377845","8bda3c55564031bc9666cd6607e1aa6f"]}}'
http://localhost:8080/zstack/v1/iam2/organizations/
e28067165c7a3d098ea64c564ac2f53f/virtual-ids
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
virtualIDUuids	List	body (contained in the params structure)			2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
organizationUuid	String	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddIAM2VirtualIDsToOrganizationAction action = new AddIAM2VirtualIDsToOrganizationAction();
action.virtualIDUuids = asList("e747d2bd298c38aab5ac7ee561377845", "8bda3c55564031bc9666cd6607e1aa6f");
action.organizationUuid = "e28067165c7a3d098ea64c564ac2f53f";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddIAM2VirtualIDsToOrganizationAction.Result res = action.call();
```

Python SDK

```
AddIAM2VirtualIDsToOrganizationAction action = AddIAM2VirtualIDsToOrganizationAction()
action.virtualIDUuids = [e747d2bd298c38aab5ac7ee561377845, 8bda3c55564031bc9666cd6607e1aa6f]
action.organizationUuid = "e28067165c7a3d098ea64c564ac2f53f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddIAM2VirtualIDsToOrganizationAction.Result res = action.call()
```

7.1.1.15 AddAttributesToIAM2VirtualID

API Request

URLs

```
POST zstack/v1/iam2/virtual-ids/{uuid}/attributes
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "attributes": [
      {
        "name": "some-attribute-name",
        "value": "attribute-value"
      }
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
attributes	List	body (contained in the params structure)	The attributes.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddAttributesToIAM2VirtualIDAction action = new AddAttributesToIAM2V
irtualIDAction();
action.uuid = "94d943b468573d9d9cdfd5472a6235dc";
action.attributes = asList([name:some-attribute-name, value:attribute-
value]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddAttributesToIAM2VirtualIDAction.Result res = action.call();
```

Python SDK

```
AddAttributesToIAM2VirtualIDAction action = AddAttributesToIAM2V
irtualIDAction()
action.uuid = "94d943b468573d9d9cdfd5472a6235dc"
action.attributes = [[name:some-attribute-name, value:attribute-value
]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddAttributesToIAM2VirtualIDAction.Result res = action.call()
```

7.1.1.16 RemoveAttributesFromIAM2VirtualID

API Request

URLs

```
DELETE zstack/v1/iam2/virtual-ids/{uuid}/attributes?
attributeUuids={attributeUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/virtual-
ids/041a44d7d5983fe480c577c897b08eb7/attributes?
attributeUuids=4d06d2b6742636dfaed60ea4b8807aa2&attributeUuids=c7ba41447321334b85
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
attributeUuids	List	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
RemoveAttributesFromIAM2VirtualIDAction action = new RemoveAttr
ibutesFromIAM2VirtualIDAction();
action.uuid = "041a44d7d5983fe480c577c897b08eb7";
action.attributeUids = asList("4d06d2b6742636dfaed60ea4b8807aa2", "
c7ba41447321334b852cf2217bfa34f4");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveAttributesFromIAM2VirtualIDAction.Result res = action.call();
```

Python SDK

```
RemoveAttributesFromIAM2VirtualIDAction action = RemoveAttributesFrom
IAM2VirtualIDAction()
action.uuid = "041a44d7d5983fe480c577c897b08eb7"
action.attributeUids = [4d06d2b6742636dfaed60ea4b8807aa2, c7ba414473
21334b852cf2217bfa34f4]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveAttributesFromIAM2VirtualIDAction.Result res = action.call()
```

7.1.1.17 SetOrganizationSupervisor

API Request

URLs

```
PUT zstack/v1/iam2/organizations/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setOrganizationSupervisor": {
    "virtualIDUuid": "b3edb976bc0244b38711fad11913fb49"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setOrganizationSupervisor":
{"virtualIDUuid":"4424b77e00cb49bca232faf58e5d1f5e"}}' http://
localhost:8080/zstack/v1/iam2/
organizations/25a96af2ef0144e5ae4d0fbee57a6af8/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.6.0
virtualIDUuid	String	body (contained in the setOrganizationSupervisor structure)			3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetOrganizationSupervisorAction action = new SetOrganizationSuper
visorAction();
action.uuid = "ea1a78daf9ff449b89326e95bc56bdcd";
action.virtualIDUuid = "b0d40be841ad41b7aec8a80ee483a88b";
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetOrganizationSupervisorAction.Result res = action.call();
```

Python SDK

```
SetOrganizationSupervisorAction action = SetOrganizationSuper
visorAction()
action.uuid = "a4f5561ff9404c6ebb6c07dce8245f17"
action.virtualIDUuid = "d9376e7c92cf43f3a27bf006e46406ca"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SetOrganizationSupervisorAction.Result res = action.call()
```

7.1.1.18 BatchCreateIAM2VirtualIDFromConfigFile

API Request

URLs

```
POST zstack/v1/iam2/virtual-ids/from-file
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "virtualIDInfos": "FILE CONTENT ENCODE BY BASE64"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"virtualIDInfos":"FILE CONTENT ENCODE BY
BASE64"}}' http://localhost:8080/zstack/v1/iam2/virtual-ids/from-file
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
virtualIDInfos	String	body (contained in the params structure)	The user information encoded in Base64 format.		3.6.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.6.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "numberOfImportedUser": 10.0
}
```

Name	Type	Description	Starting Version
numberOfImportedUser	int	The number of users that you have created successfully when you create users in bulk.	3.6.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

SDK Sample

Java SDK

```
BatchCreateIAM2VirtualIDFromConfigFileAction action = new BatchCreateIAM2VirtualIDFromConfigFileAction();
action.virtualIDInfos = "FILE CONTENT ENCODE BY BASE64";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
BatchCreateIAM2VirtualIDFromConfigFileAction.Result res = action.call();
```

Python SDK

```
BatchCreateIAM2VirtualIDFromConfigFileAction action = BatchCreateIAM2VirtualIDFromConfigFileAction()
action.virtualIDInfos = "FILE CONTENT ENCODE BY BASE64"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
BatchCreateIAM2VirtualIDFromConfigFileAction.Result res = action.call()
```

7.1.1.19 CheckIAM2VirtualIDConfigFile

API Request

URLs

```
PUT zstack/v1/iam2/virtual-ids/from-file
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "checkIAM2VirtualIDConfigFile": {
    "virtualIDInfos": "FILE CONTENT ENCODE BY BASE64"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"checkIAM2VirtualIDConfigFile":{"virtualIDInfos":"FILE
CONTENT ENCODE BY BASE64"}}' http://localhost:8080/zstack/v1/iam2/
virtual-ids/from-file
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
virtualIDInfos	String	body (contained in the checkIAM2V irtualIDCo nfigFile structure)	The user information encoded in Base64 format .		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "results": [
    {
      "line": 123.0,
      "detail": "Duplicate user name"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
results	List	See results .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#results

Name	Type	Description	Starting Version
line	int		3.6.0
detail	String		3.6.0

SDK Sample

Java SDK

```
CheckIAM2VirtualIDConfigFileAction action = new CheckIAM2VirtualIDCo
nfigFileAction();
action.virtualIDInfos = "FILE CONTENT ENCODE BY BASE64";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckIAM2VirtualIDConfigFileAction.Result res = action.call();
```

Python SDK

```
CheckIAM2VirtualIDConfigFileAction action = CheckIAM2VirtualIDCo
nfigFileAction()
action.virtualIDInfos = "FILE CONTENT ENCODE BY BASE64"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CheckIAM2VirtualIDConfigFileAction.Result res = action.call()
```

7.1.1.20 AttachIAM2ProjectToIAM2Organization

API Request

URLs

```
POST zstack/v1/iam2/projects/{projectUuid}/iam2/organizations/
{organizationUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/
v1/iam2/projects/d5698b56f9f23a61958201cf7bee4e72/iam2/
organizations/72363068daea3772bb52aa663554c1e5
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
projectUuid	String	url	The project UUID.		3.6.0
organizationUuid	String	url	The organization UUID.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "262a60f99c5a49e8866ed9f92ef550e2",
    "name": "project",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	IAM2ProjectInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
linkedAccountUuid	String		3.6.0
state	ProjectState	See state .	3.6.0
attributes	List	See attributes .	3.6.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	3.6.0
ordinal	int		3.6.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
value	String		3.6.0

Name	Type	Description	Starting Version
type	AttributeType	See type .	3.6.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	3.6.0
ordinal	int		3.6.0

SDK Sample

Java SDK

```
AttachIAM2ProjectToIAM2OrganizationAction action = new AttachIAM2ProjectToIAM2OrganizationAction();
action.projectUuid = "d5698b56f9f23a61958201cf7bee4e72";
action.organizationUuid = "72363068daea3772bb52aa663554c1e5";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachIAM2ProjectToIAM2OrganizationAction.Result res = action.call();
```

Python SDK

```
AttachIAM2ProjectToIAM2OrganizationAction action = AttachIAM2ProjectToIAM2OrganizationAction()
action.projectUuid = "d5698b56f9f23a61958201cf7bee4e72"
action.organizationUuid = "72363068daea3772bb52aa663554c1e5"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachIAM2ProjectToIAM2OrganizationAction.Result res = action.call()
```

7.1.1.21 DetachIAM2ProjectFromIAM2Organization**API Request**

URLs

```
DELETE zstack/v1/iam2/projects/{projectUuid}/iam2/organizations
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/projects/3fbdf0b46d3b3dec908ddb90fd4c6f42/iam2/organizations
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
projectUuid	String	url	The project UUID.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "de0637fdd1ca423489d31ab65e5bf886",
    "name": "project",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventory	IAM2ProjectInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0
description	String	The detailed description of the resource.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0
linkedAccountUuid	String		3.6.0
state	ProjectState	See state .	3.6.0
attributes	List	See attributes .	3.6.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	3.6.0
ordinal	int		3.6.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0

Name	Type	Description	Starting Version
value	String		3.6.0
type	AttributeType	See type .	3.6.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	3.6.0
ordinal	int		3.6.0

SDK Sample

Java SDK

```
DetachIAM2ProjectFromIAM2OrganizationAction action = new DetachIAM2ProjectFromIAM2OrganizationAction();
action.projectUuid = "3fbdf0b46d3b3dec908ddb90fd4c6f42";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachIAM2ProjectFromIAM2OrganizationAction.Result res = action.call();
```

Python SDK

```
DetachIAM2ProjectFromIAM2OrganizationAction action = DetachIAM2ProjectFromIAM2OrganizationAction()
action.projectUuid = "3fbdf0b46d3b3dec908ddb90fd4c6f42"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachIAM2ProjectFromIAM2OrganizationAction.Result res = action.call()
```

7.1.1.22 QueryIAM2OrganizationProjectRef**API Request**

URLs

```
GET zstack/v1/iam2/projects/organizations/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/iam2/projects/organizations/refs?q=projectUuid=6b0fa1d3c0433a378e50f42a53034457
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIAM2OrganizationProjectRef**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "id": 1.0,
      "projectUuid": "29db1d979502319da9ecacb37168e0c6",
      "organizationUuid": "cd0af78809683f72b02a3fe8da0f1db0",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
projectUuid	String	The project UUID.	3.6.0
organizationUuid	String	The organization UUID.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
QueryIAM20organizationProjectRefAction action = new QueryIAM20
organizationProjectRefAction();
action.conditions = asList("projectUuid=a36c8328d0543cf09d51730a3ee544
1f");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryIAM20organizationProjectRefAction.Result res = action.call();
```

Python SDK

```
QueryIAM20organizationProjectRefAction action = QueryIAM20organizatio
nProjectRefAction()
action.conditions = ["projectUuid=287be9d5470a3a6b95c985de918c19f8"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryIAM2OrganizationProjectRefAction.Result res = action.call()
```

7.1.1.23 QueryIAM2ProjectAccountRef

API Request

URLs

```
GET zstack/v1/iam2/projects/account/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/projects/account/refs?
q=projectUuid=d8b70d161b993f479cd737fbf74fe597
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIAM2ProjectAccountRef**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "projectUuid": "84e2577b7dcd327792d89b5ea0869044",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
projectUuid	String	The project UUID.	3.6.0
accountUuid	String	The account UUID.	3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
QueryIAM2ProjectAccountRefAction action = new QueryIAM2ProjectAccountRefAction();
action.conditions = asList("projectUuid=e326155182fe367ab919c9282b261db7");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryIAM2ProjectAccountRefAction.Result res = action.call();
```

Python SDK

```
QueryIAM2ProjectAccountRefAction action = QueryIAM2ProjectAccountRefAction()
action.conditions = ["projectUuid=efd02b28577c3d6d855ebf27329757e2"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryIAM2ProjectAccountRefAction.Result res = action.call()
```

7.1.1.24 GetIAM2OrganizationVirtualIDNumber

API Request

URLs

```
GET zstack/v1/iam2/organizations/{uuid}/virtualIDNumber
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/organizations/0572004dc33b36c4bd38216a024f5e0d/virtualIDNumber
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The UUID of the organization.		4.0.0
systemTags	List	query	Optional. The system tags.		4.0.0
userTags	List	query	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "virtualTotalNumber": 0.0,
  "virtualDirectNumber": 0.0
}
```

}

Name	Type	Description	Starting Version
virtualTotalNumber	Integer		4.0.0
virtualDirectNumber	Integer		4.0.0
success	boolean		4.0.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

SDK Sample

Java SDK

```
GetIAM2OrganizationVirtualIDNumberAction action = new GetIAM2OrganizationVirtualIDNumberAction();
action.uuid = "0572004dc33b36c4bd38216a024f5e0d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetIAM2OrganizationVirtualIDNumberAction.Result res = action.call();
```

Python SDK

```
GetIAM2OrganizationVirtualIDNumberAction action = GetIAM2OrganizationVirtualIDNumberAction()
action.uuid = "0572004dc33b36c4bd38216a024f5e0d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetIAM2OrganizationVirtualIDNumberAction.Result res = action.call()
```

7.1.1.25 SetOrganizationOperation

API Request

URLs

```
GET zstack/v1/iam2/organizations/{uuid}/operation
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setOrganizationOperation": {
    "virtualIDUuid": "7c5f7a277d094ce2bb17a3e7c776c636"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setOrganizationOperation":
{"virtualIDUuid":"f8f5f4f72e5c47aab9a73aa5a1b6a1df"}}' http://
```



```
localhost:8080/zstack/v1/iam2/
organizations/8cf02a09ab864bcf883e19a1c06e6c7b/operation
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.3.6
virtualIDUuid	String	body(contained in the setOrganizationOperation structure)	The usee UUID.		4.3.6
systemTags	List	body	Optional. The system tags.		4.3.6
userTags	List	body	Optional. The user tags.		4.3.6

API Response

Sample Response

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetOrganizationOperationAction action = new SetOrganizationOperationAction();
action.uuid = "460a3e9f3d2047679e2bcd3cb0a8c3a";
action.virtualIDUuid = "12d54783a9ee42d198135ee1929d91ec";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetOrganizationOperationAction.Result res = action.call();
```

Python SDK

```
SetOrganizationOperationAction action = SetOrganizationOperationAction()
action.uuid = "673bd0eb6d0c4ef0b4c1dd2ef30ed82e"
action.virtualIDUuid = "543c2373e1da4c0cb76d232156db525f"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetOrganizationOperationAction.Result res = action.call()
```

7.1.1.26 UpdateOrganizationQuota

API Request

URLs

```
GET zstack/v1/iam2/Organization/quotas/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateOrganizationQuota": {
    "identityUuid": "3e083dfff99b309bb15e848f7acef41b",
    "name": "quota",
    "value": 100.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateOrganizationQuota":
{"identityUuid":"3e083dfff99b309bb15e848f7acef41b","name":"quota","value":100.0}}'
http://localhost:8080/zstack/v1/iam2/Organization/quotas/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
identityUuid	String	body (contained in the updateOrga nizationQu ota structure)	The identity UUID.		4.3.6

Name	Type	Location	Description	Valid Value	Starting Version
name	String	body (contained in the updateOrganizationQuota structure)	The quota name.		4.3.6
value	long	body (contained in the updateOrganizationQuota structure)	The modified value.		4.3.6
systemTags	List	body	Optional. The system tags.		4.3.6
userTags	List	body	Optional. The user tags.		4.3.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "quota",
    "identityUuid": "09081c19d997357ca8f07b4c44ddc640",
    "value": 20.0
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.3.6
inventory	QuotaInventory	See inventory .	4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.3.6

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	4.3.6
identityUuid	String	The identity UUID.	4.3.6
identityType	String	The identity type.	4.3.6
value	Long	The default quota.	4.3.6
lastOpDate	Timestamp	The last update time.	4.3.6
createDate	Timestamp	The creation time.	4.3.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.3.6
description	String	The brief description of the error.	4.3.6
details	String	The details about the error.	4.3.6
elaboration	String	The reserved field. Default value: null.	4.3.6
opaque	LinkedHashMap	The reserved field. Default value: null.	4.3.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.3.6

SDK Sample

Java SDK

```
UpdateOrganizationQuotaAction action = new UpdateOrganizationQuotaAction();
action.identityUuid = "3e083dfff99b309bb15e848f7acef41b";
action.name = "quota";
```

```
action.value = 100.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateOrganizationQuotaAction.Result res = action.call();
```

Python SDK

```
UpdateOrganizationQuotaAction action = UpdateOrganizationQuotaAction()
action.identityUuid = "3e083dfff99b309bb15e848f7acef41b"
action.name = "quota"
action.value = 100.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateOrganizationQuotaAction.Result res = action.call()
```

7.1.1.27 GetOrganizationQuotaUsage

API Request

URLs

```
GET zstack/v1/iam2/organizations/quota/{uuid}/usages
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/organizations/
quota/9636f37046a63657b26cb28ed8cbc38a/usages
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.3.6
systemTags	List	query	Optional. The system tags.		4.3.6
userTags	List	query	Optional. The user tags.		4.3.6

API Response

Sample Response

```
{
  "usages": [
```

```
{
  "name": "testquota",
  "total": 20.0,
  "used": 10.0
}
```

Name	Type	Description	Starting Version
success	boolean		4.3.6
usages	List	See usages .	4.3.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.3.6

#usages

Name	Type	Description	Starting Version
name	String	The resource name.	4.3.6
total	Long	The total quota.	4.3.6
used	Long	The used quota.	4.3.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.3.6
description	String	The brief description of the error.	4.3.6
details	String	The details about the error.	4.3.6
elaboration	String	The reserved field. Default value: null.	4.3.6
opaque	LinkedHashMap	The reserved field. Default value: null.	4.3.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.3.6

SDK Sample

Java SDK

```
GetOrganizationQuotaUsageAction action = new GetOrganizationQuotaUsageAction();
action.uuid = "9636f37046a63657b26cb28ed8cbc38a";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetOrganizationQuotaUsageAction.Result res = action.call();
```

Python SDK

```
GetOrganizationQuotaUsageAction action = GetOrganizationQuotaUsageAction()
action.uuid = "9636f37046a63657b26cb28ed8cbc38a"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetOrganizationQuotaUsageAction.Result res = action.call()
```

7.1.2 Project Operations

7.1.2.1 CreateIAM2Project

API Request

URLs

```
POST zstack/v1/iam2/projects
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "project",
    "attributes": [
      {
        "name": "some-attribute-name",
        "value": "attribute-value"
      }
    ]
  },
}
```

```

    "resourceTemplates": [
      "{\n  \"name\": \"sgName\", \n  \"resourceType\": \"SecurityGr
oupVO\"\n}"
    ],
    "organizationUuid": "50ce7e8c3b5f36c5b7ae528349364968"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"project","attributes":[{"name":"some-
attribute-name","value":"attribute-value"}],"resourceTemplates":
[{"\n  \"name\": \"sgName\", \n  \"resourceType\": \"SecurityGroupVO
\"\n"}],"organizationUuid":"50ce7e8c3b5f36c5b7ae528349364968"}'
http://localhost:8080/zstack/v1/iam2/projects

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.4.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.4.0
attributes	List	body (contained in the params structure)	Optional.		2.4.0
resourceUuid	String	body (contained in the params structure)	Optional.		2.4.0
systemTags	List	body	Optional.		2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional.		2.4.0
quota	Map	body (contained in the params structure)	Optional.		2.4.0
roleUuids	List	body (contained in the params structure)	Optional.		2.4.0
resourceTemplates	List	body (contained in the params structure)	Optional. The resource template.		4.4.0
organizationUuid	String	body (contained in the params structure)	Optional. The organization UUID.		4.4.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		4.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "154643938783465e9899fd2617446a62",
    "name": "project",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0

Name	Type	Description	Starting Version
inventory	IAM2ProjectInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
linkedAccountUuid	String		2.4.0

Name	Type	Description	Starting Version
state	ProjectState	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
CreateIAM2ProjectAction action = new CreateIAM2ProjectAction();
action.name = "project";
action.attributes = asList([name:some-attribute-name, value:attribute-
value]);
action.resourceTemplates = asList("{
    "name": "sgName",
    "resourceType": "SecurityGroupV0"
}");
action.organizationUuid = "50ce7e8c3b5f36c5b7ae528349364968";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateIAM2ProjectAction.Result res = action.call();
```

Python SDK

```
CreateIAM2ProjectAction action = CreateIAM2ProjectAction()
action.name = "project"
```

```

action.attributes = [[name:some-attribute-name, value:attribute-value
]]
action.resourceTemplates = [{
  "name": "sgName",
  "resourceType": "SecurityGroupV0"
}]
action.organizationUuid = "50ce7e8c3b5f36c5b7ae528349364968"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateIAM2ProjectAction.Result res = action.call()

```

7.1.2.2 CreateIAM2ProjectFromTemplate

API Request

URLs

```
POST zstack/v1/iam2/projects/from/templates/{templateUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "name": "project",
    "organizationUuid": "589ddc9593ea3d378fd34623ee243b55"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST d '{"params":
{"name":"project","organizationUuid":"589ddc9593ea3d378fd34623ee243b55"}}'
http://localhost:8080/zstack/v1/iam2/projects/from/templates/
adff5802786439228aaf60d8a53f7f93

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		2.4.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.4.0
templateUuid	String	url			2.4.0
resourceUuid	String	body (contained in the params structure)	Optional.		2.4.0
systemTags	List	body	Optional.		2.4.0
userTags	List	body	Optional.		2.4.0
roleUuids	List	body (contained in the params structure)	Optional.		2.4.0
organizationUuid	String	body (contained in the params structure)	Optional. The organization UUID.		4.4.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		4.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "31bede78c8b748d1b2ac8ea058135bb4",
    "name": "project",
    "state": "Enabled"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2ProjectInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
linkedAccountUuid	String		2.4.0
state	ProjectState	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
CreateIAM2ProjectFromTemplateAction action = new CreateIAM2ProjectFromTemplateAction();
action.name = "project";
action.templateUuid = "adff5802786439228aaf60d8a53f7f93";
```

```
action.organizationUuid = "589ddc9593ea3d378fd34623ee243b55";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateIAM2ProjectFromTemplateAction.Result res = action.call();
```

Python SDK

```
CreateIAM2ProjectFromTemplateAction action = CreateIAM2ProjectFromTemplateAction()
action.name = "project"
action.templateUuid = "adff5802786439228aaf60d8a53f7f93"
action.organizationUuid = "589ddc9593ea3d378fd34623ee243b55"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateIAM2ProjectFromTemplateAction.Result res = action.call();
```

7.1.2.3 DeleteIAM2Project

API Request

URLs

```
DELETE zstack/v1/iam2/projects/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/projects/
fff7e1b2a983029833d1ab52bfa8187?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
deleteMode	String	url	Optional. The delete mode.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteIAM2ProjectAction action = new DeleteIAM2ProjectAction();
action.uuid = "fffc7e1b2a983029833d1ab52bfa8187";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteIAM2ProjectAction.Result res = action.call();
```

Python SDK

```
DeleteIAM2ProjectAction action = DeleteIAM2ProjectAction()
action.uuid = "fffc7e1b2a983029833d1ab52bfa8187"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteIAM2ProjectAction.Result res = action.call()
```

7.1.2.4 QueryIAM2Project

API Request

URLs

```
GET zstack/v1/iam2/projects
```

```
GET zstack/v1/iam2/projects/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/projects?q=name=test
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/iam2/projects/834affbf924e354f97ad0f47ff95d27d
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIAM2Project**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "daa77ad8d7af42cbadc88950cb85abe4",
      "name": "project",
      "state": "Enabled"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventories	List	See inventories .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
linkedAccountUuid	String		2.4.0
state	ProjectState	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0

Name	Type	Description	Starting Version
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
QueryIAM2ProjectAction action = new QueryIAM2ProjectAction();
action.conditions = asList("name=test");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryIAM2ProjectAction.Result res = action.call();
```

Python SDK

```
QueryIAM2ProjectAction action = QueryIAM2ProjectAction()
action.conditions = ["name=test"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryIAM2ProjectAction.Result res = action.call()
```

7.1.2.5 UpdateIAM2Project**API Request**

URLs

```
PUT zstack/v1/iam2/projects/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateIAM2Project": {
    "name": "new-name"
  },
  "systemTags": [],
  "userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateIAM2Project":{"name":"new-name"}}' http://localhost:8080/zstack/v1/iam2/projects/63f57ce8c8013d56ac4df307cfb1c648/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
name	String	body (contained in the updateIAM2Project structure)	Optional. The resource name.		2.4.0
description	String	body (contained in the updateIAM2Project structure)	Optional. The detailed description of the resource.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "41d47db9cb0040edabe5823e1fff0c0e",
    "name": "project",
    "state": "Enabled"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2ProjectInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
linkedAccountUuid	String		2.4.0
state	ProjectState	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
UpdateIAM2ProjectAction action = new UpdateIAM2ProjectAction();
action.uuid = "63f57ce8c8013d56ac4df307cfb1c648";
action.name = "new-name";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
UpdateIAM2ProjectAction.Result res = action.call();
```

Python SDK

```
UpdateIAM2ProjectAction action = UpdateIAM2ProjectAction()
action.uuid = "63f57ce8c8013d56ac4df307cfb1c648"
action.name = "new-name"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateIAM2ProjectAction.Result res = action.call()
```

7.1.2.6 LoginIAM2Project

API Request

URLs

```
PUT zstack/v1/iam2/projects/login
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "loginIAM2Project": {
    "projectName": "project"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"loginIAM2Project":{"projectName":"project"}}' http://
localhost:8080/zstack/v1/iam2/projects/login
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
projectName	String	body (contained			2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
		in the loginIAM2P roject structure)			
clientInfo	Map	body (contained in the loginIAM2P roject structure)	Optional. The client information.		3.5.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3357cccd4d1436748a1721d5e12f2fcd",
    "noSessionEvaluation": false
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	SessionInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	2.4.0

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
accountUuid	String	The account UUID.	2.4.0
userId	String	The user UUID.	2.4.0
expiredDate	Timestamp		2.4.0
createDate	Timestamp	The creation date.	2.4.0

SDK Sample

Java SDK

```

LoginIAM2ProjectAction action = new LoginIAM2ProjectAction();
action.projectName = "project";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
LoginIAM2ProjectAction.Result res = action.call();

```

Python SDK

```

LoginIAM2ProjectAction action = LoginIAM2ProjectAction()
action.projectName = "project"

```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
LoginIAM2ProjectAction.Result res = action.call()
```

7.1.2.7 SetIAM2ProjectLoginExpired

API Request

URLs

```
PUT zstack/v1/iam2/projects/add/login-expired/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "setIAM2ProjectLoginExpired": {
    "loginExpired": "allow 1/59 * * * * ? * to 30/59 * * * * ? *"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"setIAM2ProjectLoginExpired":{"loginExpired":"allow 1/59
* * * * ? * to 30/59 * * * * ? *"}}' http://localhost:8080/zstack/
v1/iam2/projects/add/login-expired/6b2eb879751736389b66649f98f3e29b/
actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.3.0
loginExpired	Map	body (contained in the setIAM2Pro	The login expiration expression.		4.3.0

Name	Type	Location	Description	Valid Value	Starting Version
		jectLoginExpired (structure)			
systemTags	List	body	Optional. The system tags.		4.3.0
userTags	List	body	Optional. The user tags.		4.3.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SetIAM2ProjectLoginExpiredAction action = new SetIAM2ProjectLoginExpiredAction();
action.uuid = "6b2eb879751736389b66649f98f3e29b";
action.loginExpired = "allow 1/59 * * * * ? * to 30/59 * * * * ? *";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SetIAM2ProjectLoginExpiredAction.Result res = action.call();
```

Python SDK

```
SetIAM2ProjectLoginExpiredAction action = SetIAM2ProjectLoginExpiredAction()
action.uuid = "6b2eb879751736389b66649f98f3e29b"
action.loginExpired = "allow 1/59 * * * * ? * to 30/59 * * * * ? *"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
SetIAM2ProjectLoginExpiredAction.Result res = action.call()
```

7.1.2.8 RemoveIAM2ProjectLoginExpired

API Request

URLs

```
PUT zstack/v1/iam2/projects/remove/login-expired/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "removeIAM2ProjectLoginExpired": {
    "attributeUuid": "f386055bea993b6c88d39d33fe133c44"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"removeIAM2ProjectLoginExpired":
{"attributeUuid":"f386055bea993b6c88d39d33fe133c44"}}' http://
localhost:8080/zstack/v1/iam2/projects/remove/login-expired/
b81a99d69d77366d8b1bba254aa02e0a/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
uuid	String	url	The resource UUID.		4.3.0
attributeUuid	Map	body(contained in removeIAM2ProjectLog)			4.3.0

Name	Type	Location	Description	Valid Value	Starting Version
		inExpired structure)			
systemTags	List	body	Optional. The system tags.		4.3.0
userTags	List	body	Optional. The user tags.		4.3.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveIAM2ProjectLoginExpiredAction action = new RemoveIAM2ProjectLog
inExpiredAction();
action.uuid = "b81a99d69d77366d8b1bba254aa02e0a";
action.attributeUuid = "f386055bea993b6c88d39d33fe133c44";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveIAM2ProjectLoginExpiredAction.Result res = action.call();
```

Python SDK

```
RemoveIAM2ProjectLoginExpiredAction action = RemoveIAM2ProjectLog
inExpiredAction()
action.uuid = "b81a99d69d77366d8b1bba254aa02e0a"
action.attributeUuid = "f386055bea993b6c88d39d33fe133c44"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveIAM2ProjectLoginExpiredAction.Result res = action.call()
```

7.1.2.9 ChangelAM2ProjectState

API Request

URLs

```
PUT zstack/v1/iam2/projects/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeIAM2ProjectState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeIAM2ProjectState":{"stateEvent":"enable"}}' http://
localhost:8080/zstack/v1/iam2/
projects/13096969d0093f76802126ca15d9ac9c/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
stateEvent	StateEvent	body (contained in the changeIAM2		- enable - disable	2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
		ProjectState structure)			
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "21fc3599223d46ddb5d065f6bf674a70",
    "name": "project",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2ProjectInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
linkedAccountUuid	String		2.4.0
state	ProjectState	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0

Name	Type	Description	Starting Version
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
ChangeIAM2ProjectStateAction action = new ChangeIAM2ProjectStateAction();
action.uuid = "13096969d0093f76802126ca15d9ac9c";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeIAM2ProjectStateAction.Result res = action.call();
```

Python SDK

```
ChangeIAM2ProjectStateAction action = ChangeIAM2ProjectStateAction()
action.uuid = "13096969d0093f76802126ca15d9ac9c"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeIAM2ProjectStateAction.Result res = action.call()
```

7.1.2.10 RemoveIAM2VirtualIDsFromProject

API Request

URLs

```
DELETE zstack/v1/iam2/projects/{projectUuid}/virtual-ids?
virtualIDUuids={virtualIDUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/iam2/projects/bd9eaf0cc58e3ffb8792922633be41d6/virtual-ids?virtualIDUuids=e1bc00e294e430069d37c620583ed9fd&virtualIDUuids=28852db42801373ba5
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
projectUuid	String	url			2.4.0
virtualIDUuids	List	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveIAM2VirtualIDsFromProjectAction action = new RemoveIAM2VirtualIDsFromProjectAction();
action.projectUuid = "bd9eaf0cc58e3ffb8792922633be41d6";
action.virtualIDUuids = asList("e1bc00e294e430069d37c620583ed9fd", "28852db42801373ba539eb67387e7658");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveIAM2VirtualIDsFromProjectAction.Result res = action.call();
```

Python SDK

```
RemoveIAM2VirtualIDsFromProjectAction action = RemoveIAM2VirtualIDsFromProjectAction()
action.projectUuid = "bd9eaf0cc58e3ffb8792922633be41d6"
action.virtualIDUuids = [e1bc00e294e430069d37c620583ed9fd, 28852db42801373ba539eb67387e7658]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveIAM2VirtualIDsFromProjectAction.Result res = action.call()
```

7.1.2.11 GetIAM2SystemAttributes

API Request

URLs

```
GET /v1/iam2/attributes/system
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/iam2/attributes/system
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		2.4.0
userTags	List	query	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{  
  "inventories": [  
    {  
      "uuid": "f6fb2ce8587d4455b51164b3970b2568",  
      "name": "__ProjectAdmin__",  
      "type": "System"  
    }  
  ]  
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	2.4.0

Name	Type	Description	Starting Version
		more information, see error .	
inventories	List	See inventories .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
GetIAM2SystemAttributesAction action = new GetIAM2SystemAttributesAction();  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
GetIAM2SystemAttributesAction.Result res = action.call();
```

Python SDK

```
GetIAM2SystemAttributesAction action = GetIAM2SystemAttributesAction()  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
GetIAM2SystemAttributesAction.Result res = action.call()
```

7.1.2.12 AddAttributesToIAM2Project

API Request

URLs

```
POST zstack/v1/iam2/projects/{uuid}/attributes
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "params": {  
    "attributes": [  
      {  
        "name": "some-attribute-name",  
        "value": "attribute-value"  
      }  
    ]  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"attributes":[{"name":"some-attribute-name","value":"attribute-value"}]}}' http://localhost:8080/zstack/v1/iam2/projects/71c17463bb2434f28e4649d77cd12366/attributes
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
attributes	List	body (contained in the params structure)	The attributes.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddAttributesToIAM2ProjectAction action = new AddAttributesToIAM2ProjectAction();
action.uuid = "71c17463bb2434f28e4649d77cd12366";
action.attributes = asList([name:some-attribute-name, value:attribute-value]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AddAttributesToIAM2ProjectAction.Result res = action.call();
```

Python SDK

```
AddAttributesToIAM2ProjectAction action = AddAttributesToIAM2P
rojectAction()
action.uuid = "71c17463bb2434f28e4649d77cd12366"
action.attributes = [[name:some-attribute-name, value:attribute-value
]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddAttributesToIAM2ProjectAction.Result res = action.call()
```

7.1.2.13 RemoveAttributesFromIAM2Project

API Request

URLs

```
DELETE zstack/v1/iam2/projects/{uuid}/attributes?
attributeUuids={attributeUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/
projects/3212113e647a3c4d9e7d2dc87f607a45/attributes?
attributeUuids=46f60ffedda13fbda87a584d5b23b6ba&attributeUuids=c41ee23e5fd330ccbb
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
attributeUuids	List	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveAttributesFromIAM2ProjectAction action = new RemoveAttr
ibutesFromIAM2ProjectAction();
action.uuid = "3212113e647a3c4d9e7d2dc87f607a45";
action.attributeUids = asList("46f60ffedda13fbda87a584d5b23b6ba", "
c41ee23e5fd330ccbb9f9cf8bb2061c1");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveAttributesFromIAM2ProjectAction.Result res = action.call();
```

Python SDK

```
RemoveAttributesFromIAM2ProjectAction action = RemoveAttributesFrom
IAM2ProjectAction()
action.uuid = "3212113e647a3c4d9e7d2dc87f607a45"
action.attributeUids = [46f60ffedda13fbda87a584d5b23b6ba, c41ee23e5f
d330ccbb9f9cf8bb2061c1]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveAttributesFromIAM2ProjectAction.Result res = action.call()
```

7.1.2.14 CreateIAM2VirtualIDGroup

API Request

URLs

```
POST zstack/v1/iam2/projects/{projectUuid}/groups?
projectUuid={projectUuid}
```

```
POST zstack/v1/iam2/groups?projectUuid={projectUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
```

```

"params": {
  "projectUuid": "ae81ff6fb37e392ca9b7568475f064b6",
  "name": "group"
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"projectUuid":"ae81ff6fb37e392ca9b7568475f064b6","name":"group"}}'
http://localhost:8080/zstack/v1/iam2/groups

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"projectUuid":"ae81ff6fb37e392ca9b7568475f064b6","name":"group"}}'
http://localhost:8080/zstack/v1/iam2/projects/
ae81ff6fb37e392ca9b7568475f064b6/groups

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
projectUuid	String	url	Optional.		4.0.0
name	String	body (contained in the params structure)	The name of the member group.		2.4.0
description	String	body (contained in the params structure)	Optional. The detailed description of the member group.		2.4.0
attributes	List	body (contained in the params structure)	Optional.		2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
resourceUuid	String	body (contained in the params structure)	Optional.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7c1b800eb5644c35823bbbed13d14b54c",
    "projectUuid": "04ef5931e13e4362b1960e03033b7d79",
    "name": "group-name",
    "state": "Enabled",
    "attributes": [
      {
        "uuid": "70200048148344c1833a5cc8d6227f0b",
        "name": "attribute-name",
        "value": "attribute-value",
        "type": "Customized"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2VirtualIDGroupInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
projectUuid	String		2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
state	State	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
CreateIAM2VirtualIDGroupAction action = new CreateIAM2VirtualIDGroupAction();
action.projectUuid = "ae81ff6fb37e392ca9b7568475f064b6";
action.name = "group";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateIAM2VirtualIDGroupAction.Result res = action.call();
```

Python SDK

```
CreateIAM2VirtualIDGroupAction action = CreateIAM2VirtualIDGroupAction()
action.projectUuid = "ae81ff6fb37e392ca9b7568475f064b6"
action.name = "group"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateIAM2VirtualIDGroupAction.Result res = action.call()
```

7.1.2.15 DeleteIAM2VirtualIDGroup

API Request

URLs

```
DELETE zstack/v1/iam2/projects/groups/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/projects/
groups/70844c49506031a69cb4a19a1478cddf?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
deleteMode	String	url	Optional. The delete mode.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteIAM2VirtualIDGroupAction action = new DeleteIAM2VirtualIDGroupAction();
action.uuid = "70844c49506031a69cb4a19a1478cddf";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteIAM2VirtualIDGroupAction.Result res = action.call();
```

Python SDK

```
DeleteIAM2VirtualIDGroupAction action = DeleteIAM2VirtualIDGroupAction()
action.uuid = "70844c49506031a69cb4a19a1478cddf"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteIAM2VirtualIDGroupAction.Result res = action.call()
```

7.1.2.16 QueryIAM2VirtualIDGroup

API Request

URLs

```
GET zstack/v1/iam2/projects/groups
```

```
GET zstack/v1/iam2/projects/groups/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/projects/groups?q=name=test
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/projects/groups/dfc5a52d28e3354fad1aaf634e50eb35
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIAM2VirtualIDGroup**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "89142c9562a74f619d9e2fe90982e559",
      "projectUuid": "bb66c8d69fbd419082b7c1f5e0e91ac9",
      "name": "group-name",
      "state": "Enabled",
      "attributes": [
        {
          "uuid": "39f0d375a4974ef3a8757de82ab1fdce",
          "name": "attribute-name",
          "value": "attribute-value",
          "type": "Customized"
        }
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventories	List	See inventories .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
projectUuid	String		2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
state	State	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0

Name	Type	Description	Starting Version
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
QueryIAM2VirtualIDGroupAction action = new QueryIAM2VirtualIDGroupAction();
action.conditions = asList("name=test");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryIAM2VirtualIDGroupAction.Result res = action.call();
```

Python SDK

```
QueryIAM2VirtualIDGroupAction action = QueryIAM2VirtualIDGroupAction()
action.conditions = ["name=test"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryIAM2VirtualIDGroupAction.Result res = action.call()
```

7.1.2.17 UpdateIAM2VirtualIDGroup

API Request

URLs

```
PUT zstack/v1/iam2/projects/groups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateIAM2VirtualIDGroup": {
    "name": "new-name"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateIAM2VirtualIDGroup":{"name":"new-name"}}' http://localhost:8080/zstack/v1/iam2/projects/groups/384bd47592273ddcb71039de694a37d3/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
name	String	body (contained in the updateIAM2VirtualIDGroup structure)	Optional. The resource name.		2.4.0
description	String	body (contained in the updateIAM2VirtualIDGroup structure)	Optional. The detailed description of the resource.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "9d44314e3c1a40759a0af2c59b4bd9b2",
    "projectUuid": "943d49ec4af74b8795d4c37b01d9e512",
    "name": "group-name",
    "state": "Enabled",
    "attributes": [
      {
        "uuid": "2e3fb2391e774e81bd55c6130c083c1d",
        "name": "attribute-name",
        "value": "attribute-value",
        "type": "Customized"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2VirtualIDGroupInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
projectUuid	String		2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
state	State	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0

Name	Type	Description	Starting Version
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
UpdateIAM2VirtualIDGroupAction action = new UpdateIAM2VirtualIDGroupAction();
action.uuid = "384bd47592273ddcb71039de694a37d3";
action.name = "new-name";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateIAM2VirtualIDGroupAction.Result res = action.call();
```

Python SDK

```
UpdateIAM2VirtualIDGroupAction action = UpdateIAM2VirtualIDGroupAction()
action.uuid = "384bd47592273ddcb71039de694a37d3"
action.name = "new-name"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateIAM2VirtualIDGroupAction.Result res = action.call()
```

7.1.2.18 ChangeIAM2VirtualIDGroupState**API Request**

URLs

```
PUT zstack/v1/iam2/projects/groups/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeIAM2VirtualIDGroupState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeIAM2VirtualIDGroupState":{"stateEvent":"enable"}}'
http://localhost:8080/zstack/v1/iam2/projects/groups/
dbc102a32b41404da8f639fe782834e9/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
stateEvent	StateEvent	body (contained in the changeIAM2VirtualIDGroupState structure)		- enable - disable	2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "2da22aa4a4c840e2a0e5368427c7ab60",
    "projectUuid": "8aaf3ae982794c6e9f491964b2f419b2",
    "name": "group-name",
    "state": "Enabled",
    "attributes": [
      {
        "uuid": "d754761544514141ab5080ecbe9e31e5",
        "name": "attribute-name",
        "value": "attribute-value",

```

```

    "type": "Customized"
  }
]
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2VirtualIDGroupInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
projectUuid	String		2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
state	State	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
ChangeIAM2VirtualIDGroupStateAction action = new ChangeIAM2VirtualIDGroupStateAction();
```

```
action.uuid = "b5b3e38809d24fb4b8c72603c5290c6b";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeIAM2VirtualIDGroupStateAction.Result res = action.call();
```

Python SDK

```
ChangeIAM2VirtualIDGroupStateAction action = ChangeIAM2VirtualIDG
roupStateAction()
action.uuid = "28b8a0760b484c5c91cdda19ee998644"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeIAM2VirtualIDGroupStateAction.Result res = action.call()
```

7.1.2.19 AddIAM2VirtualIDsToProject

API Request

URLs

```
POST zstack/v1/iam2/projects/{projectUuid}/virtual-ids
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "virtualIDUuids": [
      "6552671ff11d301cb593ed46b6db53ed",
      "f2a0c8724833360c939db5665d83aefc"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"virtualIDUuids":
["6552671ff11d301cb593ed46b6db53ed","f2a0c8724833360c939db5665d83aefc"]}}'
```

```
http://localhost:8080/zstack/v1/iam2/
projects/70d6ff93ccec388d92cd5c2c96f9df0b/virtual-ids
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
projectUuid	String	url			2.4.0
virtualIDUuids	List	body (contained in the params structure)			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0
roleUuids	List	body (contained in the params structure)	Optional.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddIAM2VirtualIDsToProjectAction action = new AddIAM2VirtualIDsToProjectAction();
action.projectUuid = "70d6ff93ccec388d92cd5c2c96f9df0b";
action.virtualIDUuids = asList("6552671ff11d301cb593ed46b6db53ed", "f2a0c8724833360c939db5665d83aefc");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AddIAM2VirtualIDsToProjectAction.Result res = action.call();
```

Python SDK

```
AddIAM2VirtualIDsToProjectAction action = AddIAM2VirtualIDsToP
rojectAction()
action.projectUuid = "70d6ff93ccec388d92cd5c2c96f9df0b"
action.virtualIDUuids = [6552671ff11d301cb593ed46b6db53ed, f2a0c87248
33360c939db5665d83aefc]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddIAM2VirtualIDsToProjectAction.Result res = action.call()
```

7.1.2.20 AddIAM2VirtualIDsToProjects

API Request

URLs

```
POST zstack/v1/iam2/projects/virtual-ids
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "projectUuids": [
      "106f65981c7a36498a75df50b95beb07",
      "5ee4abd779493b96a9c150f5a044963e"
    ],
    "virtualIDUuids": [
      "573e6aa70b063c5abe03528ffe4f095c",
      "ff71e39e4c2c340590b24d8609194392"
    ],
    "roleUuids": [
      "259c6ad5c2db3a8caf1b97436059f9df",
      "66e234a2951c3468823cd79a1d4315f9"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":{"projectUuids":
["106f65981c7a36498a75df50b95beb07", "5ee4abd779493b96a9c150f5a044963e"], "virtualI
["573e6aa70b063c5abe03528ffe4f095c", "ff71e39e4c2c340590b24d8609194392"], "roleUuid
["259c6ad5c2db3a8caf1b97436059f9df", "66e234a2951c3468823cd79a1d4315f9"]}}'
http://localhost:8080/zstack/v1/iam2/projects/virtual-ids
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
projectUuids	List	body (contained in the params structure)	The UUID of the projects.		4.0.0
virtualIDUuids	List	body (contained in the params structure)	The user UUIDs.		4.0.0
roleUuids	List	body (contained in the params structure)	Optional. The role UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddIAM2VirtualIDsToProjectsAction action = new AddIAM2VirtualIDsToP
rojectsAction();
```

```

action.projectUuids = asList("106f65981c7a36498a75df50b95beb07", "
5ee4abd779493b96a9c150f5a044963e");
action.virtualIDUuids = asList("573e6aa70b063c5abe03528ffe4f095c", "
ff71e39e4c2c340590b24d8609194392");
action.roleUuids = asList("259c6ad5c2db3a8caf1b97436059f9df", "
66e234a2951c3468823cd79a1d4315f9");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddIAM2VirtualIDsToProjectsAction.Result res = action.call();

```

Python SDK

```

AddIAM2VirtualIDsToProjectsAction action = AddIAM2VirtualIDsToP
rojectsAction()
action.projectUuids = [106f65981c7a36498a75df50b95beb07, 5ee4abd779
493b96a9c150f5a044963e]
action.virtualIDUuids = [573e6aa70b063c5abe03528ffe4f095c, ff71e39e4c
2c340590b24d8609194392]
action.roleUuids = [259c6ad5c2db3a8caf1b97436059f9df, 66e234a295
1c3468823cd79a1d4315f9]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddIAM2VirtualIDsToProjectsAction.Result res = action.call()

```

7.1.2.21 RemoveIAM2VirtualIDsFromProjects

API Request

URLs

```
DELECT zstack/v1/iam2/projects/virtual-ids
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/projects/virtual-ids

```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
projectUuids	List	body (contained in the params structure)	The UUID of the projects.		4.0.0
virtualIDUuids	List	body (contained in	The member UUIDs.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
		the params structure)			
systemTags	List	body (contained in the params structure)	Optional. The system tags.		4.0.0
userTags	List	body (contained in the params structure)	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveIAM2VirtualIDsFromProjectsAction action = new RemoveIAM2VirtualIDsFromProjectsAction();
action.projectUuids = asList("4b2abe7589643af3a924c3d852b68645", "3b52002f0fbd37ac9714dcd218f3862b");
action.virtualIDUuids = asList("0fbfc7baae4f394bbf368605da56da84", "e78eeced9c15367e84c7e467bdc8ac70");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveIAM2VirtualIDsFromProjectsAction.Result res = action.call();
```

Python SDK

```
RemoveIAM2VirtualIDsFromProjectsAction action = RemoveIAM2VirtualIDsFromProjectsAction()
action.projectUuids = [4b2abe7589643af3a924c3d852b68645, 3b52002f0fbd37ac9714dcd218f3862b]
action.virtualIDUuids = [0fbfc7baae4f394bbf368605da56da84, e78eeced9c15367e84c7e467bdc8ac70]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveIAM2VirtualIDsFromProjectsAction.Result res = action.call()
```

7.1.2.22 AddIAM2VirtualIDGroupToProjects

API Request

URLs

```
POST zstack/v1/iam2/projects/groups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "structs": []
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"structs":[]}}' http://localhost:8080/zstack/
v1/iam2/projects/groups
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
projectUuids	List	body (contained in the params structure)	The UUID of the projects.		4.0.0
groupUuids	List	body (contained in the params structure)	The group UUIDs.		4.0.0

Name	Type	Location	Description	Valid Value	Starting Version
roleUuids	List	body (contained in the params structure)	Optional. The role UUIDs.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddIAM2VirtualIDGroupToProjectsAction action = new AddIAM2VirtualIDGroupToProjectsAction();
action.structs = new ArrayList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddIAM2VirtualIDGroupToProjectsAction.Result res = action.call();
```

Python SDK

```
AddIAM2VirtualIDGroupToProjectsAction action = AddIAM2VirtualIDGroupToProjectsAction()
action.structs = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddIAM2VirtualIDGroupToProjectsAction.Result res = action.call()
```

7.1.2.23 RemoveIAM2VirtualIDGroupFromProjects

API Request

URLs

```
DELETE zstack/v1/iam2/projects/groups
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/projects/groups
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
projectUuids	List	body (contained in the params structure)	Optional. The UUID of the projects.		4.0.0
groupUuids	List	body (contained in the params structure)	Optional. The group UUIDs.		4.0.0
systemTags	List	body (contained in the params structure)	Optional. The system tags.		4.0.0
userTags	List	body (contained in the params structure)	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveIAM2VirtualIDGroupFromProjectsAction action = new RemoveIAM2
VirtualIDGroupFromProjectsAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveIAM2VirtualIDGroupFromProjectsAction.Result res = action.call();
```

Python SDK

```
RemoveIAM2VirtualIDGroupFromProjectsAction action = RemoveIAM2
VirtualIDGroupFromProjectsAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveIAM2VirtualIDGroupFromProjectsAction.Result res = action.call()
```

7.1.2.24 AddResourceToIAM2Project

API Request

URLs

```
POST zstack/v1/iam2/projects/add/resource/
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "projectUuid": "4b596d98fa90346cb7ac102ed2ba354a",
    "resourceTemplates": [
      "{}",
      "{}"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"projectUuid":"4b596d98fa90346cb7ac102ed2ba354a","resourceTemplates":
[{"{}","{}"]}}' http://localhost:8080/zstack/v1/iam2/projects/add/
resource/
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
projectUuid	String	body (contained in the params structure)	The project UUID.		4.4.0
resourceTemplates	List	body (contained in the params structure)	The resource template.		4.4.0
systemTags	List	body	Optional. The system tags.		4.4.0
userTags	List	body	Optional. The user tags.		4.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
AddResourceToIAM2ProjectAction action = new AddResourceToIAM2ProjectAction();
action.projectUuid = "4b596d98fa90346cb7ac102ed2ba354a";
action.resourceTemplates = asList("{}","{}");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddResourceToIAM2ProjectAction.Result res = action.call();
```

Python SDK

```
AddResourceToIAM2ProjectAction action = AddResourceToIAM2ProjectAction()
action.projectUuid = "4b596d98fa90346cb7ac102ed2ba354a"
action.resourceTemplates = [{}, {}]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddResourceToIAM2ProjectAction.Result res = action.call()
```

7.1.2.25 AddIAM2VirtualIDsToGroup

API Request

URLs

```
POST zstack/v1/iam2/projects/groups/{groupUuid}/virtual-ids
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "virtualIDUuids": [
      "28e44658cba33e57b96da2c430cbbefe",
      "f9450427d6b03c2cb992c80a3a64efaa"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"virtualIDUuids":
["28e44658cba33e57b96da2c430cbbefe","f9450427d6b03c2cb992c80a3a64efaa"]}}'
http://localhost:8080/zstack/v1/iam2/projects/
groups/2a5a0fe00543339f8c424e069df8c956/virtual-ids
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
virtualIDUuids	List	body (contained in the params structure)			2.4.0
groupUuid	String	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddIAM2VirtualIDsToGroupAction action = new AddIAM2VirtualIDsToGroupAction();
action.virtualIDUuids = asList("28e44658cba33e57b96da2c430cbbefe", "f9450427d6b03c2cb992c80a3a64efaa");
action.groupUuid = "2a5a0fe00543339f8c424e069df8c956";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
AddIAM2VirtualIDsToGroupAction.Result res = action.call();
```

Python SDK

```
AddIAM2VirtualIDsToGroupAction action = AddIAM2VirtualIDsToGroupAction
()
action.virtualIDUuids = [28e44658cba33e57b96da2c430cbbefe, f9450427d6
b03c2cb992c80a3a64efaa]
action.groupUuid = "2a5a0fe00543339f8c424e069df8c956"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddIAM2VirtualIDsToGroupAction.Result res = action.call()
```

7.1.2.26 RemoveIAM2VirtualIDsFromGroup

API Request

URLs

```
DELETE zstack/v1/iam2/projects/groups/{groupUuid}/virtual-ids?
virtualIDUuids={virtualIDUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/projects/
groups/7e89f250537f36818cd3d079f2730b2d/virtual-ids?
virtualIDUuids=de445baef47130f68b3db86d7614151f&virtualIDUuids=a44ee69219963ef98c
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
virtualIDUuids	List	url			2.4.0
groupUuid	String	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveIAM2VirtualIDsFromGroupAction action = new RemoveIAM2VirtualIDs
FromGroupAction();
action.virtualIDUuids = asList("de445baef47130f68b3db86d7614151f", "
a44ee69219963ef98ca3a15963fc8cfc");
action.groupUuid = "7e89f250537f36818cd3d079f2730b2d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveIAM2VirtualIDsFromGroupAction.Result res = action.call();
```

Python SDK

```
RemoveIAM2VirtualIDsFromGroupAction action = RemoveIAM2VirtualIDs
FromGroupAction()
action.virtualIDUuids = [de445baef47130f68b3db86d7614151f, a44ee69219
963ef98ca3a15963fc8cfc]
action.groupUuid = "7e89f250537f36818cd3d079f2730b2d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveIAM2VirtualIDsFromGroupAction.Result res = action.call()
```

7.1.2.27 UpdateIAM2VirtualID

API Request

URLs

```
PUT zstack/v1/iam2/virtual-ids/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateIAM2VirtualID": {
    "name": "new-name",
    "description": "new-desc",
    "password": "new-password"
  }
}
```



```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateIAM2VirtualID":{"name":"new-name","description":"new-desc","password":"new-password"}}' http://localhost:8080/zstack/v1/iam2/virtual-ids/348ac2cc1d9438ffa84878d4cb494234/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
name	String	body (contained in the updateIAM2VirtualID structure)	Optional. The resource name.		2.4.0
description	String	body (contained in the updateIAM2VirtualID structure)	Optional. The detailed description of the resource.		2.4.0
password	String	body (contained in the updateIAM2VirtualID structure)	Optional. The password.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
userTags	List	body	Optional. The user tags.		2.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "4906f550acb843b7ae64c32fbf7251c3",
    "name": "id1",
    "state": "Enabled",
    "attributes": [
      {
        "uuid": "b0926ede396547f9b1f6199c05ffe4d4",
        "name": "attribute-name",
        "value": "attribute-value",
        "type": "Customized"
      }
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
inventory	IAM2VirtualIDInventory	See inventory .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.4.0
description	String	The brief description of the error.	2.4.0

Name	Type	Description	Starting Version
details	String	The details about the error.	2.4.0
elaboration	String	The reserved field. Default value: null.	2.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	2.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0
name	String	The resource name.	2.4.0
description	String	The detailed description of the resource.	2.4.0
createDate	Timestamp	The creation date.	2.4.0
lastOpDate	Timestamp	The last operation date.	2.4.0
state	State	See state .	2.4.0
attributes	List	See attributes .	2.4.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.4.0

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
value	String		2.4.0
type	AttributeType	See type .	2.4.0

#type

Name	Type	Description	Starting Version
name	String	The resource name.	2.4.0
ordinal	int		2.4.0

SDK Sample

Java SDK

```
UpdateIAM2VirtualIDAction action = new UpdateIAM2VirtualIDAction();
action.uuid = "348ac2cc1d9438ffa84878d4cb494234";
action.name = "new-name";
action.description = "new-desc";
action.password = "new-password";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateIAM2VirtualIDAction.Result res = action.call();
```

Python SDK

```
UpdateIAM2VirtualIDAction action = UpdateIAM2VirtualIDAction()
action.uuid = "348ac2cc1d9438ffa84878d4cb494234"
action.name = "new-name"
action.description = "new-desc"
action.password = "new-password"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateIAM2VirtualIDAction.Result res = action.call()
```

7.1.2.28 AddRolesToIAM2VirtualID**API Request**

URLs

```
POST zstack/v1/iam2/projects/virtual-ids/{virtualIDUuid}/roles
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
```

```

"params": {
  "roleUuids": [
    "d1140b7d8ca03f7ba15ce467a9befec6",
    "8245aba180633254a5dfd76cbdd6f773"
  ],
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"roleUuids":
["d1140b7d8ca03f7ba15ce467a9befec6","8245aba180633254a5dfd76cbdd6f773"]}}'
http://localhost:8080/zstack/v1/iam2/projects/virtual-
ids/3390a29bd4df30a8a2b69cf2b56be703/roles

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
virtualIDUuid	String	url			2.4.0
roleUuids	List	body (contained in the params structure)			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

```
}
```

SDK Sample

Java SDK

```
AddRolesToIAM2VirtualIDAction action = new AddRolesToIAM2VirtualIDAction();
action.virtualIDUuid = "3390a29bd4df30a8a2b69cf2b56be703";
action.roleUuids = asList("d1140b7d8ca03f7ba15ce467a9befec6", "8245aba180633254a5dfd76cbdd6f773");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddRolesToIAM2VirtualIDAction.Result res = action.call();
```

Python SDK

```
AddRolesToIAM2VirtualIDAction action = AddRolesToIAM2VirtualIDAction()
action.virtualIDUuid = "3390a29bd4df30a8a2b69cf2b56be703"
action.roleUuids = [d1140b7d8ca03f7ba15ce467a9befec6, 8245aba180633254a5dfd76cbdd6f773]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddRolesToIAM2VirtualIDAction.Result res = action.call()
```

7.1.2.29 RemoveRolesFromIAM2VirtualID

API Request

URLs

```
DELETE zstack/v1/iam2/projects/virtual-ids/{virtualIDUuid}/roles?
roleUuids={roleUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/projects/
virtual-ids/8ac88abb03b336c68d9a5facd7a0cd8d/roles?
roleUuids=0c535557981832d2a8a9748c590e7222
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
roleUuids	List	url			2.4.0
virtualIDUuid	String	url			2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveRolesFromIAM2VirtualIDAction action = new RemoveRolesFromIAM2V
irtualIDAction();
action.roleUuids = asList("0c535557981832d2a8a9748c590e7222");
action.virtualIDUuid = "8ac88abb03b336c68d9a5facd7a0cd8d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveRolesFromIAM2VirtualIDAction.Result res = action.call();
```

Python SDK

```
RemoveRolesFromIAM2VirtualIDAction action = RemoveRolesFromIAM2V
irtualIDAction()
action.roleUuids = ["0c535557981832d2a8a9748c590e7222"]
action.virtualIDUuid = "8ac88abb03b336c68d9a5facd7a0cd8d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveRolesFromIAM2VirtualIDAction.Result res = action.call()
```

7.1.2.30 AddRolesToIAM2VirtualIDGroup

API Request

URLs

```
POST zstack/v1/iam2/projects/groups/{groupUuid}/roles
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "roleUuids": [
      "15258e508f6e39cabb2b68e5e8b1dc57",
      "e01f1cc2abc934fc88491a3b2bd4d77f"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"roleUuids":
["15258e508f6e39cabb2b68e5e8b1dc57","e01f1cc2abc934fc88491a3b2bd4d77f"]}}'
http://localhost:8080/zstack/v1/iam2/projects/
groups/606625f400b739b99a78355a54175dc7/roles
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
roleUuids	List	body (contained in the params structure)			2.4.0

Name	Type	Location	Description	Optional Value	Starting Version
groupUuid	String	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddRolesToIAM2VirtualIDGroupAction action = new AddRolesToIAM2VirtualIDGroupAction();
action.roleUuids = asList("15258e508f6e39cabb2b68e5e8b1dc57", "e01f1cc2abc934fc88491a3b2bd4d77f");
action.groupUuid = "606625f400b739b99a78355a54175dc7";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddRolesToIAM2VirtualIDGroupAction.Result res = action.call();
```

Python SDK

```
AddRolesToIAM2VirtualIDGroupAction action = AddRolesToIAM2VirtualIDGroupAction()
action.roleUuids = [15258e508f6e39cabb2b68e5e8b1dc57, e01f1cc2abc934fc88491a3b2bd4d77f]
action.groupUuid = "606625f400b739b99a78355a54175dc7"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AddRolesToIAM2VirtualIDGroupAction.Result res = action.call()
```

7.1.2.31 RemoveRolesFromIAM2VirtualIDGroup

API Request

URLs

```
DELETE zstack/v1/iam2/projects/groups/{groupUuid}/roles?
roleUuids={roleUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/
projects/groups/a1a30de59ad4346d9660fa63ea326ee7/roles?
roleUuids=46c87204285e38428ddbf4c971df2907&roleUuids=ebf229bcbcb13378686158380a5fe
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
roleUuids	List	url			2.4.0
groupUuid	String	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
RemoveRolesFromIAM2VirtualIDGroupAction action = new RemoveRolesFromIAM2VirtualIDGroupAction();
action.roleUuids = asList("46c87204285e38428ddb4c971df2907", "ebf229bcbcb13378686158380a5fe5217");
action.groupUuid = "a1a30de59ad4346d9660fa63ea326ee7";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveRolesFromIAM2VirtualIDGroupAction.Result res = action.call();
```

Python SDK

```
RemoveRolesFromIAM2VirtualIDGroupAction action = RemoveRolesFromIAM2VirtualIDGroupAction()
action.roleUuids = [46c87204285e38428ddb4c971df2907, ebf229bcbcb13378686158380a5fe5217]
action.groupUuid = "a1a30de59ad4346d9660fa63ea326ee7"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveRolesFromIAM2VirtualIDGroupAction.Result res = action.call()
```

7.1.2.32 AddAttributesToIAM2VirtualIDGroup

API Request

URLs

```
POST zstack/v1/iam2/projects/groups/{uuid}/attributes
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "attributes": [
      {
        "name": "some-attribute-name",
        "value": "attribute-value"
      }
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"attributes":[{"name":"some-attribute-name","value":"attribute-value"}]}}' http://localhost:8080/zstack/v1/iam2/projects/groups/21fb131f6da53f8f8c22fd1ae334a931/attributes
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
attributes	List	body (contained in the params structure)	The attributes.		2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddAttributesToIAM2VirtualIDGroupAction action = new AddAttributesToIAM2VirtualIDGroupAction();
action.uuid = "21fb131f6da53f8f8c22fd1ae334a931";
action.attributes = asList([name:some-attribute-name, value:attribute-value]);
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddAttributesToIAM2VirtualIDGroupAction.Result res = action.call();
```

Python SDK

```
AddAttributesToIAM2VirtualIDGroupAction action = AddAttributesToIAM2V
irtualIDGroupAction()
action.uuid = "21fb131f6da53f8f8c22fd1ae334a931"
action.attributes = [[name:some-attribute-name, value:attribute-value
]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddAttributesToIAM2VirtualIDGroupAction.Result res = action.call()
```

7.1.2.33 RemoveAttributesFromIAM2VirtualIDGroup

API Request

URLs

```
DELETE zstack/v1/iam2/projects/groups/{uuid}/attributes?
attributeUids={attributeUids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/projects/
groups/3244b0ff8134320b81db4f470f6f9dee/attributes?
attributeUids=68a7c71c12c039e38e677ced921248e4&attributeUids=aa7306e18d8b3f0283
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.4.0
attributeUids	List	url			2.4.0
systemTags	List	body	Optional. The system tags.		2.4.0
userTags	List	body	Optional. The user tags.		2.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveAttributesFromIAM2VirtualIDGroupAction action = new RemoveAttr
ibutesFromIAM2VirtualIDGroupAction();
action.uuid = "3244b0ff8134320b81db4f470f6f9dee";
action.attributeUids = asList("68a7c71c12c039e38e677ced921248e4", "
aa7306e18d8b3f0283457a55637e93de");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveAttributesFromIAM2VirtualIDGroupAction.Result res = action.call
();
```

Python SDK

```
RemoveAttributesFromIAM2VirtualIDGroupAction action = RemoveAttr
ibutesFromIAM2VirtualIDGroupAction()
action.uuid = "3244b0ff8134320b81db4f470f6f9dee"
action.attributeUids = [68a7c71c12c039e38e677ced921248e4, aa7306e18d
8b3f0283457a55637e93de]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RemoveAttributesFromIAM2VirtualIDGroupAction.Result res = action.call
()
```

7.1.2.34 CreateRole

API Request

URLs

```
POST zstack/v1/identities/roles
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "role-1",
```

```

    "description": "role for test",
    "statements": [
      "statement for test"
    ],
    "policyUuids": [
      "c950762ed8ab31818b320c704a1a276f"
    ]
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"role-1","description":"role
for test","statements":["statement for test"],"policyUuids":
["c950762ed8ab31818b320c704a1a276f"]}}' http://localhost:8080/zstack/
v1/identities/roles

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		0.6
statements	List	body (contained in the params structure)	Optional.		0.6
policyUuids	List	body (contained in the params structure)	Optional.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
resourceUuid	String	body (contained in the params structure)	Optional.		0.6
systemTags	List	body	Optional.		0.6
userTags	List	body	Optional.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "7e9df59e6d453b2187a0da3ee94f63c9",
    "name": "role-1",
    "description": "role for test",
    "type": "Customized",
    "state": "Enabled",
    "statements": [
      "statement for test"
    ]
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	RoleInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
type	RoleType	See type .	0.6
state	RoleState	See state .	0.6
statements	List	See statements .	0.6

#type

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

#state

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

#statements

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
statement	PolicyStatement	See statement .	0.6

#statement

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
principals	List		0.6
actions	List		0.6
resources	List		0.6
effect	StatementEffect	See effect .	0.6

#effect

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

SDK Sample

Java SDK

```
CreateRoleAction action = new CreateRoleAction();
action.name = "role-1";
action.description = "role for test";
action.statements = asList("statement for test");
action.policyUuids = asList("c950762ed8ab31818b320c704a1a276f");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CreateRoleAction.Result res = action.call();
```

Python SDK

```
CreateRoleAction action = CreateRoleAction()
action.name = "role-1"
action.description = "role for test"
action.statements = [statement for test]
action.policyUuids = [c950762ed8ab31818b320c704a1a276f]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateRoleAction.Result res = action.call()
```

7.1.2.35 DeleteRole

API Request

URLs

```
DELETE zstack/v1/identities/roles/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/identities/
roles/6576d603b86634d68d49e9df50443e7f?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	url	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteRoleAction action = new DeleteRoleAction();
action.uuid = "6576d603b86634d68d49e9df50443e7f";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteRoleAction.Result res = action.call();
```

Python SDK

```
DeleteRoleAction action = DeleteRoleAction()
action.uuid = "6576d603b86634d68d49e9df50443e7f"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteRoleAction.Result res = action.call()
```

7.1.2.36 QueryRole

API Request

URLs

```
GET zstack/v1/identities/roles
GET zstack/v1/identities/roles/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/identities/roles?q=name=role-1
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/identities/roles/159398ac7d57325daeb62f4abbc5107b
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryRole**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "bc0df9075c8f30cc9150ea9d2030b470",
      "name": "role-1",
      "description": "role for test",
      "type": "Customized",
      "state": "Enabled",
      "statements": [
        "statement for test"
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
type	RoleType	See type .	0.6
state	RoleState	See state .	0.6
statements	List	See statements .	0.6

#type

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

#state

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

#statements

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
statement	PolicyStatement	See statement .	0.6

#statement

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
principals	List		0.6
actions	List		0.6
resources	List		0.6
effect	StatementEffect	See effect .	0.6

#effect

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

SDK Sample

Java SDK

```
QueryRoleAction action = new QueryRoleAction();
action.conditions = asList("name=role-1");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryRoleAction.Result res = action.call();
```

Python SDK

```
QueryRoleAction action = QueryRoleAction()
```

```

action.conditions = ["name=role-1"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryRoleAction.Result res = action.call()

```

7.1.2.37 UpdateRole

API Request

URLs

```
PUT zstack/v1/identities/roles/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "updateRole": {
    "name": "role-1",
    "description": "role for test",
    "statements": [
      {}
    ],
    "policyUuids": [
      "da93f6bf55823973a1bea123d7f5427f"
    ]
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateRole":{"name":"role-1","description":"role
for test","statements":[{}],"policyUuids":
["da93f6bf55823973a1bea123d7f5427f"]}}' http://localhost:8080/zstack/
v1/identities/roles/a3489a74f7e23a5682b808b59f4d25c4/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
name	String	body (contained in the updateRole structure)	The resource name.		0.6
description	String	body (contained in the updateRole structure)	Optional. The detailed description of the resource.		0.6
statements	List	body (contained in the updateRole structure)	Optional. The permission statements.		0.6
policyUuids	List	body (contained in the updateRole structure)	Optional. The permission policy UUIDs.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "14c577188a0c3ee8871e27087a287bc2",
    "name": "role-1",
    "description": "role for test",
    "type": "Customized",
    "state": "Enabled",
    "statements": [
      "statement for test"
    ]
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	RoleInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
type	RoleType	See type .	0.6
statements	List	See statements .	0.6

#type

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

#statements

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
statement	PolicyStatement	See statement .	0.6

#statement

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
principals	List		0.6
actions	List		0.6
resources	List		0.6
effect	StatementEffect	See effect .	0.6

#effect

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

SDK Sample

Java SDK

```
UpdateRoleAction action = new UpdateRoleAction();
action.uuid = "a3489a74f7e23a5682b808b59f4d25c4";
action.name = "role-1";
action.description = "role for test";
action.statements = asList([]);
action.policyUuids = asList("da93f6bf55823973a1bea123d7f5427f");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateRoleAction.Result res = action.call();
```

Python SDK

```
UpdateRoleAction action = UpdateRoleAction()
action.uuid = "a3489a74f7e23a5682b808b59f4d25c4"
action.name = "role-1"
action.description = "role for test"
action.statements = [[]]
action.policyUuids = ["da93f6bf55823973a1bea123d7f5427f"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateRoleAction.Result res = action.call()
```

7.1.2.38 ChangeRoleState

API Request

URLs

```
PUT zstack/v1/identities/roles/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeRoleState": {
    "stateEvent": "enable"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeRoleState":{"stateEvent":"enable"}}'
http://localhost:8080/zstack/v1/identities/roles/
bd69220686b1390e9ae7c473c73745fa/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
stateEvent	RoleStateEvent	body (contained in the changeRoleState structure)		- enable - disable	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "69f93c9ed74235e18019dafcf3f1fb65",
    "name": "role-1",
    "description": "role for test",
    "type": "Customized",
    "state": "Enabled",
    "statements": [
      "statement for test"
    ]
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	RoleInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
type	RoleType	See type .	0.6
state	RoleState	See state .	0.6
statements	List	See statements .	0.6

#type

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

#state

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

#statements

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
statement	PolicyStatement	See statement .	0.6

#statement

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
principals	List		0.6

Name	Type	Description	Starting Version
actions	List		0.6
resources	List		0.6
effect	StatementEffect	See effect .	0.6

#effect

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
ordinal	int		0.6

SDK Sample

Java SDK

```
ChangeRoleStateAction action = new ChangeRoleStateAction();
action.uuid = "bd69220686b1390e9ae7c473c73745fa";
action.stateEvent = "enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeRoleStateAction.Result res = action.call();
```

Python SDK

```
ChangeRoleStateAction action = ChangeRoleStateAction()
action.uuid = "bd69220686b1390e9ae7c473c73745fa"
action.stateEvent = "enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeRoleStateAction.Result res = action.call()
```

7.1.2.39 AttachPolicyToRole**API Request**

URLs

```
POST zstack/v1/identities/policies/{policyUuid}/roles/{roleUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/
identities/policies/b6d28a1479ba35ff992c468c6422086b/roles/
ac53fe888c20385691c8c89335041b00
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
roleUuid	String	url			0.6
policyUuid	String	url	The permission policy UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  {
    "error": {
      "code": "SYS.1001",
      "description": "A message or a operation timeout",
      "details": "Create VM on KVM timeout after 300s"
    }
  }
}
```

SDK Sample**Java SDK**

```
AttachPolicyToRoleAction action = new AttachPolicyToRoleAction();
action.roleUuid = "ac53fe888c20385691c8c89335041b00";
```

```
action.policyUuid = "b6d28a1479ba35ff992c468c6422086b";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachPolicyToRoleAction.Result res = action.call();
```

Python SDK

```
AttachPolicyToRoleAction action = AttachPolicyToRoleAction()
action.roleUuid = "ac53fe888c20385691c8c89335041b00"
action.policyUuid = "b6d28a1479ba35ff992c468c6422086b"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachPolicyToRoleAction.Result res = action.call()
```

7.1.2.40 DetachPolicyFromRole

API Request

URLs

```
DELETE zstack/v1/identities/policies/{policyUuid}/roles/{roleUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
identities/policies/1690962271f435cda25a5db08a21694c/
roles/1d06e80ea3b23da9a6c5cc9b434ce7ce?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
roleUuid	String	url			0.6
policyUuid	String	url	The permission policy UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DetachPolicyFromRoleAction action = new DetachPolicyFromRoleAction();
action.roleUuid = "1d06e80ea3b23da9a6c5cc9b434ce7ce";
action.policyUuid = "1690962271f435cda25a5db08a21694c";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachPolicyFromRoleAction.Result res = action.call();
```

Python SDK

```
DetachPolicyFromRoleAction action = DetachPolicyFromRoleAction()
action.roleUuid = "1d06e80ea3b23da9a6c5cc9b434ce7ce"
action.policyUuid = "1690962271f435cda25a5db08a21694c"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachPolicyFromRoleAction.Result res = action.call()
```

7.1.2.41 AddPolicyStatementsToRole

API Request

URLs

```
POST zstack/v1/identities/roles/{uuid}/policy-statements
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "statements": [
      {
        "name": "state-1",
        "effect": "Allow",
        "actions": [
          "accpet"
        ]
      }
    ]
  }
}
```

```

    }
  ],
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"statements":
[{"name":"state-1","effect":"Allow","actions":
[{"accpet"}]}]}' http://localhost:8080/zstack/v1/identities/
roles/4723bb74195e3ce28de45bbbd9173173/policy-statements

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
statements	List	body (contained in the params structure)			0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```

{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}

```

```
}
```

SDK Sample

Java SDK

```
AddPolicyStatementsToRoleAction action = new AddPolicyStatementsToRoleAction();
action.uuid = "4723bb74195e3ce28de45bbbd9173173";
action.statements = asList([name:state-1, effect:Allow, actions:[accpet]]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddPolicyStatementsToRoleAction.Result res = action.call();
```

Python SDK

```
AddPolicyStatementsToRoleAction action = AddPolicyStatementsToRoleAction()
action.uuid = "4723bb74195e3ce28de45bbbd9173173"
action.statements = [[name:state-1, effect:Allow, actions:[accpet]]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddPolicyStatementsToRoleAction.Result res = action.call()
```

7.1.2.42 RemovePolicyStatementsFromRole

API Request

URLs

```
DELETE zstack/v1/identities/roles/{uuid}/policy-statements?
policyStatementUuids={policyStatementUuids}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/identities/
roles/fd6ff08afb3e3a4db5f13816b0110caa/policy-statements?
policyStatementUuids=d0e7ec31946437d3b17ec2e20e48a1ac
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
policyStatementUuids	List	url			0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemovePolicyStatementsFromRoleAction action = new RemovePolicyStatementsFromRoleAction();
action.uuid = "fd6ff08afb3e3a4db5f13816b0110caa";
action.policyStatementUuids = asList("d0e7ec31946437d3b17ec2e20e48a1ac");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemovePolicyStatementsFromRoleAction.Result res = action.call();
```

Python SDK

```
RemovePolicyStatementsFromRoleAction action = RemovePolicyStatementsFromRoleAction()
action.uuid = "fd6ff08afb3e3a4db5f13816b0110caa"
action.policyStatementUuids = [d0e7ec31946437d3b17ec2e20e48a1ac]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemovePolicyStatementsFromRoleAction.Result res = action.call()
```

7.1.2.43 AttachRoleToAccount

API Request

URLs

```
POST zstack/v1/identities/accounts/{accountUuid}/roles/{roleUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/
identities/accounts/053a25bbfe2c34a889d75601e64d4a51/roles/
b7a901c45db33f12993c9c7aad874ff4
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
roleUuid	String	url			0.6
accountUuid	String	url	The account UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AttachRoleToAccountAction action = new AttachRoleToAccountAction();
action.roleUuid = "b7a901c45db33f12993c9c7aad874ff4";
action.accountUuid = "053a25bbfe2c34a889d75601e64d4a51";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachRoleToAccountAction.Result res = action.call();
```

Python SDK

```
AttachRoleToAccountAction action = AttachRoleToAccountAction()
action.roleUuid = "b7a901c45db33f12993c9c7aad874ff4"
action.accountUuid = "053a25bbfe2c34a889d75601e64d4a51"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachRoleToAccountAction.Result res = action.call()
```

7.1.2.44 DetachRoleFromAccount

API Request

URLs

```
DELETE zstack/v1/identities/accounts/{accountUuid}/roles/{roleUuid}?
deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/identities/
accounts/ac3ea9154a603cbcabbb1664dbcf66ef/roles/
ca3f332b7ffd347fa30ba01be1176b96?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
roleUuid	String	url			0.6
accountUuid	String	url	The account UUID.		0.6
deleteMode	String	url	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DetachRoleFromAccountAction action = new DetachRoleFromAccountAction
();
action.roleUuid = "ca3f332b7ffd347fa30ba01be1176b96";
action.accountUuid = "ac3ea9154a603cbcabbb1664dbcf66ef";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachRoleFromAccountAction.Result res = action.call();
```

Python SDK

```
DetachRoleFromAccountAction action = DetachRoleFromAccountAction()
action.roleUuid = "ca3f332b7ffd347fa30ba01be1176b96"
action.accountUuid = "ac3ea9154a603cbcabbb1664dbcf66ef"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DetachRoleFromAccountAction.Result res = action.call()
```

7.1.2.45 GetIAM2VirtualIDAPIPermission

API Request

URLs

```
GET zstack/v1/iam2/virtual-ids/api-permissions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/virtual-ids/api-
permissions?
apisToCheck={"apiName":"org.zstack.header.vm.APICreateVmInstanceMsg", "body":
{"name":"vm"}}
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
apisToCheck	List	query	Optional.		2.4.0
systemTags	List	query	Optional.		2.4.0
userTags	List	query	Optional.		2.4.0

API Response

Sample Response

```
{
  "permissions": {
    "org.zstack.header.vm.APICreateVmInstanceMsg": {
      "allow": true
    }
  },
  "noPermission": false
}
```

Name	Type	Description	Starting Version
noPermission	boolean		2.4.0
success	boolean		2.4.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.4.0
permissions	Map	See permissions .	2.4.0
error	ErrorCode	See error .	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#permissions

Name	Type	Description	Starting Version
allow	boolean	Whether you have the permission.	2.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetIAM2VirtualIDAPIPermissionAction action = new GetIAM2VirtualIDAPIPermissionAction();
action.apisToCheck = asList("{\"apiName\":\"org.zstack.header.vm.APICreateVmInstanceMsg\", \"body\":{\"name\":\"vm\"}}");
action.onlyCheckParams = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetIAM2VirtualIDAPIPermissionAction.Result res = action.call();
```

Python SDK

```
GetIAM2VirtualIDAPIPermissionAction action = GetIAM2VirtualIDAPIPermissionAction()
action.apisToCheck = [{"apiName":"org.zstack.header.vm.APICreateVmInstanceMsg", "body":{"name":"vm"}}]
action.onlyCheckParams = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetIAM2VirtualIDAPIPermissionAction.Result res = action.call()
```

7.1.2.46 LoginIAM2Platform

API Request

URLs

```
PUT zstack/v1/iam2/platform/login
```

Body

```
{
  "loginIAM2Platform": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"loginIAM2Platform":{}}' http://localhost:8080/zstack/v1/
iam2/platform/login
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
clientInfo	Map	body(contained in the loginIAM2Platform structure)	Optional.		4.0.0
systemTags	List	body	Optional. The system tags.		4.0.0
userTags	List	body	Optional. The user tags.		4.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "243138fdb96e37d785ff4bfe01484b75",
    "noSessionEvaluation": false
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.0.0
inventory	SessionInventory	See inventory .	4.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.0.0
description	String	The brief description of the error.	4.0.0
details	String	The details about the error.	4.0.0
elaboration	String	The reserved field. Default value: null.	4.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The session UUID.	4.0.0
accountUuid	String	The account UUID	4.0.0
userUuid	String	The user UUID.	4.0.0
expiredDate	Timestamp		4.0.0
createDate	Timestamp	The time when the session was started.	4.0.0

SDK Sample

Java SDK

```
LoginIAM2PlatformAction action = new LoginIAM2PlatformAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
LoginIAM2PlatformAction.Result res = action.call();
```

Python SDK

```
LoginIAM2PlatformAction action = LoginIAM2PlatformAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
LoginIAM2PlatformAction.Result res = action.call()
```

7.1.3 Ticket Operations

7.1.3.1 CreateTicket

API Request

URLs

```
POST zstack/v1/tickets
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "this is a new ticket",
    "requests": [
      {
        "requestName": "create vm",
        "apiName": "org.zstack.header.vm.APICreateVmInstanceMsg",
        "executeTimes": 1.0,
```

```

    "apiBody": {
      "name": "vm name",
      "instanceOfferingUuid": "46466abc6c8931fdaab7a8df43e4f175",
      "imageUuid": "43e997234af63863b28a5e9987e1d122",
      "l3NetworkUuids": [
        "8b4ddd66c7ba30598cdc7ab835e04f96"
      ],
      "strategy": "InstantStart",
      "timeout": -1.0,
      "headers": {},
      "id": "a9a029dba17842939f0227420d197121",
      "createdTime": 1.545993580705E12
    },
    "accountSystemType": "iam2",
    "accountSystemContext": {
      "projectUuid": "28c9a199e3e842d28c9805eb89be56cb",
      "virtualIDUuid": "1c255722caf34cb888b57d11a744248c"
    },
    "systemTags": [],
    "userTags": []
  }
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"this is a new
  ticket","requests":[{"requestName":"create
    vm","apiName":"org.zstack.header.vm.APICreateVmInstanceMsg","executeTimes":1.0,"
{"name":"vm
  name","instanceOfferingUuid":"46466abc6c8931fdaab7a8df43e4f175","imageUuid":"43e
["8b4ddd66c7ba30598cdc7ab835e04f96"],"strategy":"InstantStart","timeout":-1.0,"he
{},"id":"590ee3ceb92248e08967bf413de91e26","createdTime":1.545993580708E12}}],"ac
{"projectUuid":"a497d61cc2d848f2a1101ebd7bc7362f","virtualIDUuid":"c0df7a66330f4c
http://localhost:8080/zstack/v1/tickets

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.0.0
requests	List	body (contained in the params structure)			3.0.0
flowCollectionUuid	String	body (contained in the params structure)	Optional.		3.0.0
accountSystemType	String	body (contained in the params structure)			3.0.0
accountSystemContext	Object	body (contained in the params structure)			3.0.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
CreateTicketAction action = new CreateTicketAction();
action.name = "this is a new ticket";
action.requests = asList([requestName:create vm, apiName:org.zstack
.header.vm.APICreateVmInstanceMsg, executeTimes:1.0, apiBody:[name
:vm name, instanceOfferingUuid:46466abc6c8931fdaab7a8df43e4f175,
imageUuid:43e997234af63863b28a5e9987e1d122, l3NetworkUuids:[8b4ddd66c7
ba30598cdc7ab835e04f96], strategy:InstantStart, timeout:-1.0, headers
:[:], id:0132535043b04abf9f56eb9a1fb4c87b, createTime:1.5459935807
49E12]]);
action.accountSystemType = "iam2";
action.accountSystemContext = [projectUuid:01ce66b048c5477195b5
d6e43507239c, virtualIDUuid:cd120a6130884e4ca80a01b10e59de86];
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateTicketAction.Result res = action.call();
```

Python SDK

```
CreateTicketAction action = CreateTicketAction()
action.name = "this is a new ticket"
action.requests = [[requestName:create vm, apiName:org.zstack.header
.vm.APICreateVmInstanceMsg, executeTimes:1.0, apiBody:[name:vm name
, instanceOfferingUuid:46466abc6c8931fdaab7a8df43e4f175, imageUuid:
43e997234af63863b28a5e9987e1d122, l3NetworkUuids:[8b4ddd66c7ba30598cdc
7ab835e04f96], strategy:InstantStart, timeout:-1.0, headers:[:], id:
379419159124407c903a2b3f13ca6f96, createTime:1.54599358075E12]]]
action.accountSystemType = "iam2"
action.accountSystemContext = [projectUuid:629c222d0b834ec3aa3a
f9f5a0e5d986, virtualIDUuid:bf3198f5680341ac88f54d59e94ad7ab]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateTicketAction.Result res = action.call()
```

7.1.3.2 UpdateTicketRequest

API Request

URLs

```
PUT zstack/v1/tickets/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateTicketRequest": {
    "requests": [
      {
        "requestName": "create vm",
```

```

    "apiName": "org.zstack.header.vm.APICreateVmInstanceMsg",
    "executeTimes": 1.0,
    "apiBody": {
      "name": "vm name",
      "instanceOfferingUuid": "dba186c0f4e73c8b853e36b37a028761",
      "imageUuid": "a3688b0adaaf3745b9919d6bcbf374b1",
      "l3NetworkUuids": [
        "cc68b29962063148a2b5434d434f1f90"
      ],
      "strategy": "InstantStart",
      "timeout": -1.0,
      "headers": {},
      "id": "779c0969ca40422a9f371710c245e271",
      "createTime": 1.564025557712E12
    }
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateTicketRequest":{"requests":[{"requestName":"create
vm","apiName":"org.zstack.header.vm.APICreateVmInstanceMsg","executeTimes":1.0,
{"name":"vm
name","instanceOfferingUuid":"dba186c0f4e73c8b853e36b37a028761","imageUuid":"a36
["cc68b29962063148a2b5434d434f1f90"],"strategy":"InstantStart","timeout":-1.0,"he
{},"id":"151dc242428a4b39a81a9b31712e7f09","createTime":1.564025557718E12}}]}}'
http://localhost:8080/zstack/v1/
tickets/3d7955e800593abcb49e89c372d6a5ce/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.0
requests	List	body (contained in the updateTicketRequest structure)			3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.0.0
userTags	List	body	Optional. The user tags.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "14b4cced263d4e0b8511292980c7984f",
    "name": "ticket",
    "description": "ticket description",
    "status": "IntermediateApproved",
    "request": [
      {
        "requestName": "create vm",
        "apiName": "org.zstack.header.vm.APICreateVmInstanceMsg",
        "executeTimes": 1.0,
        "apiBody": {
          "name": "vm name",
          "instanceOfferingUuid": "c14ffce45a924c7c89b29b472b0cc6a5",
          "imageUuid": "21bc6910199d44b3bbd0e336bb88f424",
          "l3NetworkUuids": [
            "ff4916c36d9a4c1683c20e5a22ceceb7"
          ],
          "strategy": "InstantStart",
          "timeout": -1.0,
          "headers": {},
          "id": "bde85ab4eb754339bc6bb42623097c56",
          "createdTime": 1.564025557751E12
        }
      ]
    },
    "accountSystemType": "iam2",
    "ticketTypeUuid": "3b933e9aaf2d49b9a3dcf0c92867790f",
    "accountSystemContext": {
      "projectUuid": "2294a0edf109447bafa802bb73b29cd3",
      "virtualIDUuid": "178c834b9bc84bac9e77460b42eb3494"
    },
    "flowCollectionUuid": "9fbbac8054d54f0490438eaaba3e1cf8"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.0.0

Name	Type	Description	Starting Version
		more information, see error .	
inventory	TicketInventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
accountSystemType	String		3.0.0
ticketTypeUuid	String	The ticket type UUID.	3.6.0

Name	Type	Description	Starting Version
accountSystemContext	Object		3.0.0
currentFlowUuid	String		3.0.0
flowCollectionUuid	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
status	TicketStatus	See status .	3.0.0
request	List	See request .	3.0.0

#status

Name	Type	Description	Starting Version
name	String	The resource name.	3.0.0
ordinal	int		3.0.0

#request

Name	Type	Description	Starting Version
requestName	String		3.0.0
apiName	String		3.0.0
executeTimes	int		3.0.0
apiBody	Object		3.0.0

SDK Sample

Java SDK

```
UpdateTicketRequestAction action = new UpdateTicketRequestAction();
action.uuid = "3d7955e800593abcb49e89c372d6a5ce";
action.requests = asList([requestName:create vm, apiName:org.zstack
.header.vm.APICreateVmInstanceMsg, executeTimes:1.0, apiBody:[name
:vm name, instanceOfferingUuid:dba186c0f4e73c8b853e36b37a028761,
imageUuid:a3688b0adaaf3745b9919d6bcbf374b1, l3NetworkUuids:[cc68b29962
063148a2b5434d434f1f90], strategy:InstantStart, timeout:-1.0, headers
:[:], id:ac92123f5b9144159389b4d3d5e95fcf, createTime:1.5640255578
73E12]]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
UpdateTicketRequestAction.Result res = action.call();
```

Python SDK

```
UpdateTicketRequestAction action = UpdateTicketRequestAction()
action.uuid = "3d7955e800593abcb49e89c372d6a5ce"
action.requests = [[requestName:create vm, apiName:org.zstack.header
.vm.APICreateVmInstanceMsg, executeTimes:1.0, apiBody:[name:vm name
, instanceOfferingUuid:dba186c0f4e73c8b853e36b37a028761, imageUuid:
a3688b0adaaf3745b9919d6bcbf374b1, l3NetworkUuids:[cc68b29962063148a2b5
434d434f1f90], strategy:InstantStart, timeout:-1.0, headers:[:], id:
2be0f869588b4051907cd550a9913683, createTime:1.564025557879E12]]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateTicketRequestAction.Result res = action.call()
```

7.1.3.3 ChangeTicketStatus

API Request

URLs

```
PUT zstack/v1/tickets/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeTicketStatus": {
    "statusEvent": "approve",
    "comment": "this is the comment for change status operation"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeTicketStatus":
{"statusEvent":"approve","comment":"this is the comment for change
status operation"}}' http://localhost:8080/zstack/v1/tickets/
e9377476db3f375bbff78dc3b9204f00/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.0
statusEvent	TicketStatusEvent	body (contained in the changeTicketStatus structure)		• open • approve • cancel • reject • reopen	3.0.0
comment	String	body (contained in the changeTicketStatus structure)	Optional.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "f4483251fd48cdae0dbb966a2652c9",
    "name": "ticket",
    "description": "ticket description",
    "status": "IntermediateApproved",
    "request": [
      {
        "requestName": "create vm",
        "apiName": "org.zstack.header.vm.APICreateVmInstanceMsg",
        "executeTimes": 1.0,
        "apiBody": {
          "name": "vm name",
          "instanceOfferingUuid": "e539401d4cf74a6c93b173b9fa01d4e6",
          "imageUuid": "16e0a61a2ca145eaaae6c7e9ef72ae31",
          "l3NetworkUuids": [
            "0fbf9d6545e6480790ee9b2f7da59f65"
          ],
          "strategy": "InstantStart",
          "timeout": -1.0,
          "headers": {},
          "id": "3f1b84f2f3ca453caf3086625d57eff5",
          "createTime": 1.56402555717E12
        }
      ]
    }
  }
}
```



```

    "accountSystemType": "iam2",
    "ticketTypeUuid": "3b933e9aaf2d49b9a3dcf0c92867790f",
    "accountSystemContext": {
      "projectUuid": "21423d5537cc4891b33745b3ad9045f8",
      "virtualIDUuid": "1470a380fe454b4298ba178245aa499c"
    },
    "flowCollectionUuid": "6aa051e47de74658885bca987b9c4a35"
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	TicketInventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
accountSystemType	String		3.0.0
ticketTypeUuid	String	The ticket type UUID.	3.6.0
accountSystemContext	Object		3.0.0
currentFlowUuid	String		3.0.0
flowCollectionUuid	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
status	TicketStatus	See status .	3.0.0
request	List	See request .	3.0.0

#status

Name	Type	Description	Starting Version
name	String	The resource name.	3.0.0
ordinal	int		3.0.0

#request

Name	Type	Description	Starting Version
requestName	String		3.0.0
apiName	String		3.0.0
executeTimes	int		3.0.0
apiBody	Object		3.0.0

SDK Sample

Java SDK

```
ChangeTicketStatusAction action = new ChangeTicketStatusAction();
action.uuid = "e9377476db3f375bbff78dc3b9204f00";
```

```
action.statusEvent = "approve";
action.comment = "this is the comment for change status operation";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeTicketStatusAction.Result res = action.call();
```

Python SDK

```
ChangeTicketStatusAction action = ChangeTicketStatusAction()
action.uuid = "e9377476db3f375bbff78dc3b9204f00"
action.statusEvent = "approve"
action.comment = "this is the comment for change status operation"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeTicketStatusAction.Result res = action.call()
```

7.1.3.4 QueryTicket

API Request

URLs

```
GET zstack/v1/tickets
```

```
GET zstack/v1/tickets/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/tickets?
q=uuid=b17f50a117f0320588b55c24947a5fbf
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/tickets/
dc7a48ed388b3a2da9939c4e84151d05
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryTicket**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "b891de634d914b93957e2824c6297295",
```

```

"name": "ticket",
"description": "ticket description",
"status": "IntermediateApproved",
"request": [
  {
    "requestName": "create vm",
    "apiName": "org.zstack.header.vm.APICreateVmInstanceMsg",
    "executeTimes": 1.0,
    "apiBody": {
      "name": "vm name",
      "instanceOfferingUuid": "8166c9b945954375b7bf649fd734b63d",
      "imageUuid": "da8c8c3174704a2eac160f0c9c373a3c",
      "l3NetworkUuids": [
        "0858e5fd17524673bbcb8f275d45c86"
      ],
      "strategy": "InstantStart",
      "timeout": -1.0,
      "headers": {},
      "id": "8f9fbb135562492e8f713b913334b7fb",
      "createdTime": 1.564025557548E12
    }
  }
],
"accountSystemType": "iam2",
"ticketTypeUuid": "3b933e9aaf2d49b9a3dcf0c92867790f",
"accountSystemContext": {
  "projectUuid": "92594abfcbd34543b38a793b004f97ba",
  "virtualIDUuid": "fc9c42f94a194a4e9718fa764dcc5599"
},
"flowCollectionUuid": "2719925626f3464787071d4ba22f9cc7"
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventories	List	See inventories .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
accountSystemType	String		3.0.0
ticketTypeUuid	String	The ticket type UUID.	3.6.0
accountSystemContext	Object		3.0.0
currentFlowUuid	String		3.0.0
flowCollectionUuid	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
status	TicketStatus	See status .	3.0.0
request	List	See request .	3.0.0

#status

Name	Type	Description	Starting Version
name	String	The resource name.	3.0.0
ordinal	int		3.0.0

#request

Name	Type	Description	Starting Version
requestName	String		3.0.0
apiName	String		3.0.0
executeTimes	int		3.0.0
apiBody	Object		3.0.0

SDK Sample

Java SDK

```
QueryTicketAction action = new QueryTicketAction();
action.conditions = asList("uuid=e397806ebbe0376b96d7c857e06b9714");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryTicketAction.Result res = action.call();
```

Python SDK

```
QueryTicketAction action = QueryTicketAction()
action.conditions = ["uuid=0198e730d1dc334da8aab9b3a219ba35"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryTicketAction.Result res = action.call()
```

7.1.3.5 QueryArchiveTicket**API Request**

URLs

```
GET zstack/v1/tickets/archives
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/tickets/archives
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryArchiveTicket**, and pressing the Tab key.

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryArchiveTicketAction action = new QueryArchiveTicketAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryArchiveTicketAction.Result res = action.call();
```

Python SDK

```
QueryArchiveTicketAction action = QueryArchiveTicketAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryArchiveTicketAction.Result res = action.call()
```

7.1.3.6 QueryTicketHistory

API Request

URLs

```
GET zstack/v1/tickets/histories
```

```
GET zstack/v1/tickets/histories/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/tickets/histories?
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/tickets/
histories/2cbcaa4913f73d968a9b075a1607bbee
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryTicketHistory**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "fromStatus": "Pending",
      "toStatus": "IntermediateApproved",
      "comment": "approve ticket",
      "operationContextType": "StatusChanged",
      "operationContext": {
        "requestResults": [
          {
            "requestName": "org.zstack.header.vm.APICreateVmInstanceM
sg",
            "successTimes": 1.0,
            "failureTimes": 0.0,
            "errors": []
          }
        ]
      }
    }
  ],
}
```



```

    "operatorUuid": "f2bf860263bc3856b0c50d712b0d4b7b",
    "createDate": "Dec 28, 2018 6:38:12 PM",
    "lastOpDate": "Dec 28, 2018 6:38:12 PM"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventories	List	See inventories .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
ticketUuid	String		3.0.0
comment	String		3.0.0
operationContextType	String		3.0.0
operationContext	LinkedHashMap		3.0.0
operatorType	String		3.0.0
operatorUuid	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
fromStatus	TicketStatus	See fromStatus .	3.0.0
toStatus	TicketStatus	See toStatus .	3.0.0

#fromStatus

Name	Type	Description	Starting Version
name	String	The resource name.	3.0.0
ordinal	int		3.0.0

#toStatus

Name	Type	Description	Starting Version
name	String	The resource name.	3.0.0
ordinal	int		3.0.0

SDK Sample

Java SDK

```
QueryTicketHistoryAction action = new QueryTicketHistoryAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryTicketHistoryAction.Result res = action.call();
```

Python SDK

```
QueryTicketHistoryAction action = QueryTicketHistoryAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryTicketHistoryAction.Result res = action.call()
```

7.1.3.7 CreateIAM2TickFlowCollection

API Request

URLs

```
POST zstack/v1/tickets/flow-collections
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "flows": [
      {
        "name": "flow1",
        "approverUuid": "1c4db59a73b63f968889764bcb2bae9d"
      },
      {
        "name": "flow2",
        "approverUuid": "eb9dc5050030323281c255864ca6c633"
      }
    ],
    "projectUuid": "bdd993eb57c13134967b15ed38ba33c4",
    "name": "flow collection",
    "description": "flow collection description",
    "isDefault": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"flows":
[{"name":"flow1","approverUuid":"1c4db59a73b63f968889764bcb2bae9d"},
{"name":"flow2","approverUuid":"eb9dc5050030323281c255864ca6c633"}],"projectUuid":
"collection","description":"flow collection
description","isDefault":false}}' http://localhost:8080/zstack/v1/
tickets/flow-collections
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
flows	List	body (contained in the params structure)	Optional.		3.0.0
name	String	body (contained in the params structure)	The resource name.		3.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.0.0
isDefault	Boolean	body (contained in the params structure)	Optional.		3.0.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0
projectUuid	String	body (contained in the params structure)			3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "state": "Enabled",
    "status": "Valid",
    "lastOpDate": "Dec 28, 2018 6:50:31 PM",
    "isDefault": true,
    "flows": [
      {
        "name": "flow name",
        "description": "flow description",
```

```

    "flowContextType": "iam2",
    "createDate": "Dec 28, 2018 6:50:31 PM",
    "lastOpDate": "Dec 28, 2018 6:50:31 PM",
    "collectionUuid": "1dffd5fae83f3f55be42c56a0c2b266b"
  }
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	TicketFlowCollection Inventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
state	String		3.0.0
status	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
isDefault	Boolean		3.0.0
flows	List	See flows .	3.0.0

#flows

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
parentFlowUuid	String		3.0.0
flowContext	String		3.0.0
flowContextType	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The creation date.	3.0.0
collectionUuid	String		3.0.0

SDK Sample

Java SDK

```
CreateIAM2TickFlowCollectionAction action = new CreateIAM2TickFlowCollectionAction();
action.flows = asList([name:flow1, approverUuid:1c4db59a73b63f968889764bcb2bae9d],[name:flow2, approverUuid:eb9dc5050030323281c255864ca6c633]);
```

```

action.projectUuid = "bdd993eb57c13134967b15ed38ba33c4";
action.name = "flow collection";
action.description = "flow collection description";
action.isDefault = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateIAM2TickFlowCollectionAction.Result res = action.call();

```

Python SDK

```

CreateIAM2TickFlowCollectionAction action = CreateIAM2TickFlowCo
llectionAction()
action.flows = [[name:flow1, approverUuid:1c4db59a73b63f968889
764bcb2bae9d], [name:flow2, approverUuid:eb9dc5050030323281c2
55864ca6c633]]
action.projectUuid = "bdd993eb57c13134967b15ed38ba33c4"
action.name = "flow collection"
action.description = "flow collection description"
action.isDefault = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateIAM2TickFlowCollectionAction.Result res = action.call()

```

7.1.3.8 DeleteTicketFlowCollection

API Request

URLs

```

DELETE zstack/v1/tickets/flow-collections/{uuid}?
deleteMode={deleteMode}

```

Headers

```

Authorization: OAuth the-session-uuid

```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/tickets/flow-
collections/657b0e4c4b21394db32f1c7c1066efa9?deleteMode=Permissive

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.0
deleteMode	String	body	Optional. The delete mode.		3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.0.0
userTags	List	body	Optional. The user tags.		3.0.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteTicketFlowCollectionAction action = new DeleteTicketFlowCollectionAction();
action.uuid = "657b0e4c4b21394db32f1c7c1066efa9";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteTicketFlowCollectionAction.Result res = action.call();
```

Python SDK

```
DeleteTicketFlowCollectionAction action = DeleteTicketFlowCollectionAction()
action.uuid = "657b0e4c4b21394db32f1c7c1066efa9"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
DeleteTicketFlowCollectionAction.Result res = action.call()
```

7.1.3.9 UpdateIAM2TicketFlowCollection

API Request

URLs

```
PUT zstack/v1/tickets/flow-collections/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateIAM2TicketFlowCollection": {
    "flows": [
      {
        "name": "flow1",
        "approverUuid": "8603f9c875a23cf1815b85e16f0d972e"
      },
      {
        "name": "flow2",
        "approverUuid": "9563991259ad3820bf48e5d8b86b5da4"
      }
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateIAM2TicketFlowCollection":{"flows":
[{"name":"flow1","approverUuid":"8603f9c875a23cf1815b85e16f0d972e"},
{"name":"flow2","approverUuid":"9563991259ad3820bf48e5d8b86b5da4"}]}}'
http://localhost:8080/zstack/v1/tickets/flow-
collections/610687f0ec5c3ca286a27fa13888df2e/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
flows	List	body (contained in the updateIAM2 TicketFlow Collection structure)	Optional.		3.0.0
uuid	String	url	The resource UUID.		3.0.0
name	String	body (contained in the updateIAM2 TicketFlow Collection structure)	Optional. The resource name.		3.0.0
description	String	body (contained in the updateIAM2 TicketFlow Collection structure)	Optional. The detailed description of the resource.		3.0.0
isDefault	Boolean	body (contained in the updateIAM2 TicketFlow Collection structure)	Optional.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
```

```

    "uuid": "7db7660049ba42fc95de91ac238145a5",
    "name": "collection name",
    "state": "Enabled",
    "status": "Valid",
    "isDefault": false,
    "flows": []
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	TicketFlowCollection Inventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
state	String		3.0.0
status	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
isDefault	Boolean		3.0.0
flows	List	See flows .	3.0.0

#flows

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
parentFlowUuid	String		3.0.0
flowContext	String		3.0.0
flowContextType	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The creation date.	3.0.0
collectionUuid	String		3.0.0

SDK Sample

Java SDK

```
UpdateIAM2TicketFlowCollectionAction action = new UpdateIAM2TicketFlowCollectionAction();
action.flows = asList([name:flow1, approverUuid:8603f9c875a23cf1815b85e16f0d972e],[name:flow2, approverUuid:9563991259ad3820bf48e5d8b86b5da4]);
```

```
action.uuid = "610687f0ec5c3ca286a27fa13888df2e";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateIAM2TicketFlowCollectionAction.Result res = action.call();
```

Python SDK

```
UpdateIAM2TicketFlowCollectionAction action = UpdateIAM2TicketFlow
CollectionAction()
action.flows = [[name:flow1, approverUuid:8603f9c875a23cf1815b
85e16f0d972e], [name:flow2, approverUuid:9563991259ad3820bf48
e5d8b86b5da4]]
action.uuid = "610687f0ec5c3ca286a27fa13888df2e"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateIAM2TicketFlowCollectionAction.Result res = action.call()
```

7.1.3.10 QueryTicketFlowCollection

API Request

URLs

```
GET zstack/v1/tickets/flow-collections
```

```
GET zstack/v1/tickets/flow-collections/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/tickets/flow-collections
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/tickets/flow-
collections/19575ca3d82838a39763f3081e3f5055
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryTicketFlowCollection**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "aafa04d2d3b447bb866a62457aa24fdd",
```

```

    "name": "collection name",
    "state": "Enabled",
    "status": "Valid",
    "isDefault": false,
    "flows": []
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventories	List	See inventories .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
state	String		3.0.0
status	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
isDefault	Boolean		3.0.0
flows	List	See flows .	3.0.0

#flows

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
parentFlowUuid	String		3.0.0
flowContext	String		3.0.0
flowContextType	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
collectionUuid	String		3.0.0

SDK Sample

Java SDK

```
QueryTicketFlowCollectionAction action = new QueryTicketFlowCollectionAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryTicketFlowCollectionAction.Result res = action.call();
```

Python SDK

```
QueryTicketFlowCollectionAction action = QueryTicketFlowCollectionAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryTicketFlowCollectionAction.Result res = action.call()
```

7.1.3.11 ChangeTicketFlowCollectionState

API Request

URLs

```
PUT zstack/v1/tickets/flow-collections/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeTicketFlowCollectionState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeTicketFlowCollectionState":
{"stateEvent":"disable"}}' http://localhost:8080/zstack/v1/tickets/
flow-collections/b2a1edfb81d73aea989b25727b7a1417/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.0
stateEvent	String	body (contained in the changeTicketFlowCollectionState structure)		• enable • disable	3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0
userTags	List	body	Optional. The user tags.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "34d5466ff50d4e719aa854c2a1d58e81",
    "name": "collection name",
    "state": "Enabled",
    "status": "Valid",
    "isDefault": false,
    "flows": []
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	TicketFlowCollection Inventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
state	String		3.0.0
status	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
isDefault	Boolean		3.0.0
flows	List	See flows .	3.0.0

#flows

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
parentFlowUuid	String		3.0.0
flowContext	String		3.0.0
flowContextType	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
collectionUuid	String		3.0.0

SDK Sample

Java SDK

```
ChangeTicketFlowCollectionStateAction action = new ChangeTicketFlowCollectionStateAction();
action.uuid = "b2a1edfb81d73aea989b25727b7a1417";
action.stateEvent = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeTicketFlowCollectionStateAction.Result res = action.call();
```

Python SDK

```
ChangeTicketFlowCollectionStateAction action = ChangeTicketFlowCollectionStateAction()
action.uuid = "b2a1edfb81d73aea989b25727b7a1417"
action.stateEvent = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ChangeTicketFlowCollectionStateAction.Result res = action.call()
```

7.1.3.12 QueryTicketFlow

API Request

URLs

```
GET zstack/v1/tickets/flow
```

```
GET zstack/v1/tickets/flow/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/tickets/flow
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/tickets/flow/
c6c9263205103dd3b6194140c5c06b74
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryTicketFlow**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "ea0457b5994a4710a182015cef690d75",
      "name": "flow1",
      "description": "flow description",
      "parentFlowUuid": "8d7b4b6b72bf4ff2bcf945b313320dc1",
      "flowContextType": "{\\\"approverUuid\\\":\\\"139bcc292cb141bea1e8d40bf8bbaed9\\\"}",
      "createDate": "Dec 28, 2018 6:39:29 PM",
      "lastOpDate": "Dec 28, 2018 6:39:29 PM",
      "collectionUuid": "a87c7cb15468456dbce88da5f65c0073"
    },
    {
      "uuid": "8d7b4b6b72bf4ff2bcf945b313320dc1",
      "name": "flow2",
      "description": "flow description",

```

```

    "flowContextType": "{\\"approverUuid\\":\\"1cc3e1575809468dba5cedcfe8cc5a4c\\"}",
    "createDate": "Dec 28, 2018 6:39:29 PM",
    "lastOpDate": "Dec 28, 2018 6:39:29 PM",
    "collectionUuid": "a87c7cb15468456dbce88da5f65c0073"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventories	List	See inventories .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
parentFlowUuid	String		3.0.0
flowContext	String		3.0.0
flowContextType	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
collectionUuid	String		3.0.0

SDK Sample

Java SDK

```
QueryTicketFlowAction action = new QueryTicketFlowAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryTicketFlowAction.Result res = action.call();
```

Python SDK

```
QueryTicketFlowAction action = QueryTicketFlowAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryTicketFlowAction.Result res = action.call()
```

7.1.3.13 AddIAM2TicketFlow

API Request

URLs

```
POST zstack/v1/tickets/flow
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
```

```

    "approverUuid": "92b1b555f19531df9a94ce42c8959fa9",
    "approverTitle": "SystemAdmin",
    "name": "example flow",
    "collectionUuid": "d72760c4e3b24c45be267f5aa0a2c5a1"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"approverUuid": "92b1b555f19531df9a94ce42c8959fa9", "approverTitle": "SystemAdmin",
"flow", "collectionUuid": "82b6111a0d7f47bd955f385f959b1eb7"}}' http://
localhost:8080/zstack/v1/tickets/flow

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
approverUuid	String	body (contained in the params structure)			3.0.0
approverTitle	String	body (contained in the params structure)	Optional.		3.0.0
name	String	body (contained in the params structure)	Optional. The resource name.		3.0.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.0.0
collectionUuid	String	body (contained in			3.0.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
parentFlow Uuid	String	body (contained in the params structure)	Optional.		3.0.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "f9b5298fc4d2429294513ffe340215c8",
    "name": "flow1",
    "description": "flow description",
    "parentFlowUuid": "4ca39493ec06407cb50fa92880f9bcbc",
    "flowContextType": "{\"approverUuid\":\"99a8ba4f86564f0787ab2c8b11bfadb0\"}",
    "createDate": "Dec 28, 2018 6:38:25 PM",
    "lastOpDate": "Dec 28, 2018 6:38:25 PM",
    "collectionUuid": "5d32a7a22ea645409dd7b12b5223f723"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	TicketFlowInventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
parentFlowUuid	String		3.0.0
flowContext	String		3.0.0
flowContextType	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
collectionUuid	String		3.0.0

SDK Sample

Java SDK

```
AddIAM2TicketFlowAction action = new AddIAM2TicketFlowAction();
action.approverUuid = "92b1b555f19531df9a94ce42c8959fa9";
action.approverTitle = "SystemAdmin";
action.name = "example flow";
action.collectionUuid = "4913282e13a64fe29b802c78b67e2c84";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddIAM2TicketFlowAction.Result res = action.call();
```

Python SDK

```
AddIAM2TicketFlowAction action = AddIAM2TicketFlowAction()
action.approverUuid = "92b1b555f19531df9a94ce42c8959fa9"
action.approverTitle = "SystemAdmin"
action.name = "example flow"
action.collectionUuid = "12d574495c074cf59de72c911391b8bb"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddIAM2TicketFlowAction.Result res = action.call()
```

7.1.3.14 UpdateIAM2TicketFlow

API Request

URLs

```
PUT zstack/v1/tickets/flow/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateIAM2TicketFlow": {
    "name": "new ticket flow name",
    "description": "new ticket flow description",
    "approverUuid": "714d3eedb96f32a39598fb11ae0d9927"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateIAM2TicketFlow":{"name":"new
ticket flow name","description":"new ticket flow
description","approverUuid":"714d3eedb96f32a39598fb11ae0d9927"}}'
http://localhost:8080/zstack/v1/tickets/
flow/919e8fbb3b3b30f480b41563e36839cc/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.0
name	String	body (contained in the updateIAM2TicketFlow structure)	Optional. The resource name.		3.0.0
description	String	body(contained in the updateIAM2TicketFlow structure)	Optional. The detailed description of the resource.		3.0.0
approverUuid	String	body (contained in the updateIAM2TicketFlow structure)	Optional.		3.0.0
approverTitle	String	body (contained in the updateIAM2TicketFlow structure)	Optional.		3.0.0
systemTags	List	body	Optional.		3.0.0
userTags	List	body	Optional.		3.0.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "1dc3521c3ec74b81813121404e5941e6",
    "name": "flow1",
    "description": "flow description",
    "parentFlowUuid": "bb2897de253e497f94587fc09b5ef969",
    "flowContextType": "{\\"approverUuid\\":\\"da8cc8c2412246b6b29b38328b7dab88\\"}",
    "createDate": "Dec 28, 2018 6:39:33 PM",
    "lastOpDate": "Dec 28, 2018 6:39:33 PM",
    "collectionUuid": "2b9bdd8b1c1d4163864e55d16840954f"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.0.0
inventory	TicketFlowInventory	See inventory .	3.0.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.0.0
description	String	The brief description of the error.	3.0.0
details	String	The details about the error.	3.0.0
elaboration	String	The reserved field. Default value: null.	3.0.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.0.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.0.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.0.0
name	String	The resource name.	3.0.0
description	String	The detailed description of the resource.	3.0.0
parentFlowUuid	String		3.0.0
flowContext	String		3.0.0
flowContextType	String		3.0.0
createDate	Timestamp	The creation date.	3.0.0
lastOpDate	Timestamp	The last operation date.	3.0.0
collectionUuid	String		3.0.0

SDK Sample

Java SDK

```
UpdateIAM2TicketFlowAction action = new UpdateIAM2TicketFlowAction();
action.uuid = "919e8fbb3b3b30f480b41563e36839cc";
action.name = "new ticket flow name";
action.description = "new ticket flow description";
action.approverUuid = "714d3eedb96f32a39598fb11ae0d9927";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateIAM2TicketFlowAction.Result res = action.call();
```

Python SDK

```
UpdateIAM2TicketFlowAction action = UpdateIAM2TicketFlowAction()
action.uuid = "919e8fbb3b3b30f480b41563e36839cc"
action.name = "new ticket flow name"
action.description = "new ticket flow description"
action.approverUuid = "714d3eedb96f32a39598fb11ae0d9927"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateIAM2TicketFlowAction.Result res = action.call()
```

7.1.3.15 DeleteIAM2TicketFlow

API Request

URLs

```
DELETE zstack/v1/tickets/flow/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/tickets/
flow/482baf2f2f4f3315b81064ecc5b3625c?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.0.0
deleteMode	String	body	Optional. The delete mode.		3.0.0
systemTags	List	body	Optional. The system tags.		3.0.0
userTags	List	body	Optional. The user tags.		3.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteIAM2TicketFlowAction action = new DeleteIAM2TicketFlowAction();
action.uuid = "482baf2f2f4f3315b81064ecc5b3625c";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteIAM2TicketFlowAction.Result res = action.call();
```

Python SDK

```
DeleteIAM2TicketFlowAction action = DeleteIAM2TicketFlowAction()
action.uuid = "482baf2f2f4f3315b81064ecc5b3625c"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteIAM2TicketFlowAction.Result res = action.call()
```

7.1.3.16 AddTicketTypesToTicketFlowCollection

API Request

URLs

```
POST zstack/v1/tickets/flow-collections/{ticketFlowCollectionUuid}/
ticket-types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "ticketTypeUuids": [
      "3b933e9aaf2d49b9a3dcf0c92867790f",
      "ef064ef45fb446d381db7b7d5f71695c"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"ticketTypeUuids":
["3b933e9aaf2d49b9a3dcf0c92867790f","ef064ef45fb446d381db7b7d5f71695c"]}}'
http://localhost:8080/zstack/v1/tickets/flow-
collections/4f4bf50d510f4bf1959d8c5baa218cc4/ticket-types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ticketFlow CollectionUuid	String	url	The ticket process UUID.		3.6.0
ticketType Uuids	List	body (contained in the params structure)	The ticket type UUIDs.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddTicketTypesToTicketFlowCollectionAction action = new AddTicketTypesToTicketFlowCollectionAction();
action.ticketFlowCollectionUuid = "d8aa14d3ea224e36bd071b2355c94882";
action.ticketTypeUuids = asList("3b933e9aaf2d49b9a3dcf0c92867790f","ef064ef45fb446d381db7b7d5f71695c");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```



```
AddTicketTypesToTicketFlowCollectionAction.Result res = action.call();
```

Python SDK

```
AddTicketTypesToTicketFlowCollectionAction action = AddTicketT
ypesToTicketFlowCollectionAction()
action.ticketFlowCollectionUuid = "5682400944cd4ca0acb82ff8d67462a6"
action.ticketTypeUuids = [3b933e9aaf2d49b9a3dcf0c92867790f, ef064ef45f
b446d381db7b7d5f71695c]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddTicketTypesToTicketFlowCollectionAction.Result res = action.call()
```

7.1.3.17 RemoveTicketTypesFromTicketFlowCollection

API Request

URLs

```
DELETE zstack/v1/tickets/flow-collections/{ticketFlowCollectionUuid}/
ticket-types
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/tickets/flow-
collections/839c88649a804cf6b56f3e80aac1c578/ticket-types
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ticketFlowCollectionUuid	String	url			3.6.0
ticketTypeUuids	List	body			3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RemoveTicketTypesFromTicketFlowCollectionAction action = new
RemoveTicketTypesFromTicketFlowCollectionAction();
action.ticketFlowCollectionUuid = "f4ccacf67bb04b4698d01ffbfed57134";
action.ticketTypeUuids = asList("3b933e9aaf2d49b9a3dcf0c92867790f", "
ef064ef45fb446d381db7b7d5f71695c");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RemoveTicketTypesFromTicketFlowCollectionAction.Result res = action.
call();
```

Python SDK

```
RemoveTicketTypesFromTicketFlowCollectionAction action = RemoveTick
etTypesFromTicketFlowCollectionAction()
action.ticketFlowCollectionUuid = "97e30e33bea34366850c62781d342e22"
action.ticketTypeUuids = [3b933e9aaf2d49b9a3dcf0c92867790f, ef064ef45f
b446d381db7b7d5f71695c]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
RemoveTicketTypesFromTicketFlowCollectionAction.Result res = action.  
call()
```

7.1.3.18 QueryTicketType

API Request

URLs

```
GET zstack/v1/ticket-types
```

```
GET zstack/v1/ticket-types/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/ticket-types?  
q=uuid=8cab296e0d8e3c86aef43d7e76c874c6
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/ticket-types/  
e3e9345750b93455ad7336be8bd60420
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryTicketType**, and pressing the Tab key.

API Response

Sample Response

```
{  
  "inventories": [  
    {  
      "uuid": "3b933e9aaf2d49b9a3dcf0c92867790f",  
      "name": "CREATE_VM_INSTANCE_TICKET_TYPE",  
      "adminOnly": false,  
      "createDate": "Jul 18, 2019 4:09:46 PM",  
      "lastOpDate": "Jul 18, 2019 4:09:46 PM"  
    }  
  ]  
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The resource name.	3.6.0

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	3.6.0
type	String		3.6.0
requests	String		3.6.0
createDate	Timestamp	The creation date.	3.6.0
lastOpDate	Timestamp	The last operation date.	3.6.0

SDK Sample

Java SDK

```
QueryTicketTypeAction action = new QueryTicketTypeAction();
action.conditions = asList("uuid=bbeba1e02a88309192252bbfe409df4f");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryTicketTypeAction.Result res = action.call();
```

Python SDK

```
QueryTicketTypeAction action = QueryTicketTypeAction()
action.conditions = ["uuid=60ebfd64ef4238f9bbdd77c3c0569d64"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryTicketTypeAction.Result res = action.call()
```

7.1.4 SSO Operations

7.1.4.1 CreateIAM2VirtualIDFromLdapUid

API Request

URLs

```
POST zstack/v1/iam2/virtual-id/ldap/uid
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "ldapUid": "ou\u003dEmployee,uid\u003dtest"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"ldapUid":"ou=Employee,uid=test"}}' http://
localhost:8080/zstack/v1/iam2/virtual-id/ldap/uid
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ldapUid	String	body (contained in the params structure)	The AD/LDAP user UUID.		4.7.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.7.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.7.0
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "417c94a9fdfb3b61b2e0d11ed42f4b4d",
    "ldapUid": "ou\u003dEmployee,uid\u003dtest",
    "ldapServerUuid": "6e667cc905903cfc82ddef6f14d45831",
    "virtualIDUuid": "bbcf2b14a0d13401872088bd1aa7f930"
  }
}
```

}

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventory	LdapIAM2VirtualIDRef Inventory	See inventory .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
ldapUid	String	The AD/LDAP entry UID.	3.5.1
ldapServerUuid	String	The AD/LDAP server UUID.	3.5.1
resourceUuid	String	The UUID of the associated resource.	3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

SDK Sample

Java SDK

```
CreateIAM2VirtualIDFromLdapUidAction action = new CreateIAM2VirtualIDFromLdapUidAction();
action.ldapUid = "ou=Employee,uid=test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateIAM2VirtualIDFromLdapUidAction.Result res = action.call();
```

Python SDK

```
CreateIAM2VirtualIDFromLdapUidAction action = CreateIAM2VirtualIDFromLdapUidAction()
action.ldapUid = "ou=Employee,uid=test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateIAM2VirtualIDFromLdapUidAction.Result res = action.call()
```

7.1.4.2 CreateIAM2VirtualIDLdapBinding

API Request

URLs

```
POST zstack/v1/iam2/ldap/bindings
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "virtualIDUuid": "7f78522de8ce3e3c8550207c26704dc8",
```



```

    "ldapUid": "ou\u003dEmployee,uid\u003dtest"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"virtualIDUUid": "7f78522de8ce3e3c8550207c26704dc8", "ldapUid": "ou=Employee, uid=test",
http://localhost:8080/zstack/v1/iam2/ldap/bindings

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
virtualIDUUid	String	body (contained in the params structure)	The user UUID.		4.7.0
ldapUid	String	body (contained in the params structure)	The AD/LDAP user UUID.		4.7.0
resourceUuid	String	body (contained in the params structure)	Optional.		4.7.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.7.0
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "35f1a7c85cf038f6892a9c6b5e2f0470",
    "ldapUid": "ou\u003dEmployee,uid\u003dtest",
    "ldapServerUuid": "1bca8f5b607b3d0d9cc5b22270c3a262",
    "virtualIDUuid": "5d1be61d0d1d3657afdd9e7829f4d2ed"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventory	LdapIAM2VirtualIDRef Inventory	See inventory .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root	3.5.1

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
ldapUid	String	The AD/LDAP entry UID.	3.5.1
ldapServerUuid	String	The AD/LDAP server UUID.	3.5.1
resourceUuid	String	The UUID of the associated resource.	3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

SDK Sample

Java SDK

```
CreateIAM2VirtualIDLdapBindingAction action = new CreateIAM2VirtualIDLdapBindingAction();
action.virtualIDUuid = "52d9727518053f50889bebe14617d2d2";
action.ldapUid = "ou=Employee,uid=test";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateIAM2VirtualIDLdapBindingAction.Result res = action.call();
```

Python SDK

```
CreateIAM2VirtualIDLdapBindingAction action = CreateIAM2VirtualIDLdapBindingAction()
action.virtualIDUuid = "52d9727518053f50889bebe14617d2d2"
action.ldapUid = "ou=Employee,uid=test"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateIAM2VirtualIDLdapBindingAction.Result res = action.call()
```

7.1.4.3 GetCandidateLdapEntryForIAM2Binding

API Request

URLs

```
GET zstack/v1/iam2/ldap/entries/candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/ldap/entries/candidates?
ldapFilter=(cn=user_xxx)&limit=2500.0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ldapFilter	String	query	The AD/LDAP query filter.		3.5.1
limit	Integer	query	Optional. The limit of AD/LDAP query entries.		3.5.1
systemTags	List	query	Optional. The system tags.		3.5.1
userTags	List	query	Optional. The user tags.		3.5.1

API Response

Sample Response

```
{
  "inventories": []
}
```

}

Name	Type	Description	Starting Version
inventories	List		3.5.1
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

SDK Sample

Java SDK

```
GetCandidateLdapEntryForIAM2BindingAction action = new GetCandidateLdapEntryForIAM2BindingAction();
action.ldapFilter = "(cn=user_xxx)";
action.limit = 2500.0;
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateLdapEntryForIAM2BindingAction.Result res = action.call();
```

Python SDK

```
GetCandidateLdapEntryForIAM2BindingAction action = GetCandida
teLdapEntryForIAM2BindingAction()
action.ldapFilter = "(cn=user_xxx)"
action.limit = 2500.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetCandidateLdapEntryForIAM2BindingAction.Result res = action.call()
```

7.1.4.4 LoginIAM2VirtualIDWithLdap

API Request

URLs

```
PUT zstack/v1/iam2/login/virtual-ids/ldap
```

Body

```
{
  "loginIAM2VirtualIDWithLdap": {
    "uid": "ou\u003dEmployee,uid\u003dtest",
    "password": "password"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-X PUT -d '{"loginIAM2VirtualIDWithLdap":
{"uid":"ou=Employee,uid=test", "password":"password"}}' http://
localhost:8080/zstack/v1/iam2/login/virtual-ids/ldap
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uid	String	body (contained in the loginIAM2V	The login attribute value		3.5.1

Name	Type	Location	Description	Optional Value	Starting Version
		virtualIDWithLdap structure)	of the AD/LDAP user.		
password	String	body (contained in the loginIAM2VirtualIDWithLdap structure)	The login password of the AD/LDAP user.		3.5.1
verifyCode	String	body (contained in the loginIAM2VirtualIDWithLdap structure)	Optional. The login verification code.		3.5.1
captchaUuid	String	body (contained in the loginIAM2VirtualIDWithLdap structure)	Optional. The UUID of the login authentication code.		3.5.1
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "4abb254913c23d488c161bcd3524f176",
    "accountUuid": "ac1453a45c6830c6ad6d488326a4c0ec",
    "expiredDate": "Nov 14, 2017 10:20:57 PM",
    "noSessionEvaluation": false
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventory	SessionInventory	See inventory .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
accountUuid	String	The account UUID.	3.5.1

Name	Type	Description	Starting Version
userUuid	String	The user UUID.	3.5.1
expiredDate	Timestamp		3.5.1
createDate	Timestamp	The creation date.	3.5.1

SDK Sample

Java SDK

```
LoginIAM2VirtualIDWithLdapAction action = new LoginIAM2VirtualIDWithLdapAction();
action.uid = "ou=Employee,uid=test";
action.password = "password";
LoginIAM2VirtualIDWithLdapAction.Result res = action.call();
```

Python SDK

```
LoginIAM2VirtualIDWithLdapAction action = LoginIAM2VirtualIDWithLdapAction()
action.uid = "ou=Employee,uid=test"
action.password = "password"
LoginIAM2VirtualIDWithLdapAction.Result res = action.call()
```

7.1.4.5 DeleteIAM2VirtualIDLdapBinding

API Request

URLs

```
DELETE /v1/iam2/ldap/bindings/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/iam2/ldap/bindings/0a7983d3082530c4b6d4b844e694694e?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.1

Name	Type	Location	Description	Optional Value	Starting Version
deleteMode	String	body	Optional. The delete mode.		3.5.1
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteIAM2VirtualIDLdapBindingAction action = new DeleteIAM2VirtualIDLdapBindingAction();
action.uuid = "0a7983d3082530c4b6d4b844e694694e";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteIAM2VirtualIDLdapBindingAction.Result res = action.call();
```

Python SDK

```
DeleteIAM2VirtualIDLdapBindingAction action = DeleteIAM2VirtualIDLdapBindingAction()
action.uuid = "0a7983d3082530c4b6d4b844e694694e"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteIAM2VirtualIDLdapBindingAction.Result res = action.call()
```

7.1.4.6 CleanInvalidLdapIAM2Binding

API Request

URLs

```
PUT zstack/v1/iam2/ldap/bindings/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "cleanInvalidLdapIAM2Binding": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"cleanInvalidLdapIAM2Binding":{}}' http://
localhost:8080/zstack/v1/iam2/ldap/bindings/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

Sample Response

```
{
  "inventories": [
```

```

{
  "uuid": "642833fc31983380b25ecf08f3f8f8f4",
  "name": "admin",
  "state": "Enabled",
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventories	List	See inventories .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
name	String	The resource name.	3.5.1
description	String	The detailed description of the resource.	3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1
state	State	See state .	3.5.1
attributes	List	See attributes .	3.5.1

#state

Name	Type	Description	Starting Version
name	String	The resource name.	3.5.1
ordinal	int		3.5.1

#attributes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
name	String	The resource name.	3.5.1
value	String		3.5.1
type	AttributeType	See type .	3.5.1

#type

Name	Type	Description	Starting Version
name	String	The resource name.	3.5.1
ordinal	int		3.5.1

SDK Sample

Java SDK

```
CleanInvalidLdapIAM2BindingAction action = new CleanInvalidLdapIAM2
BindingAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
CleanInvalidLdapIAM2BindingAction.Result res = action.call();
```

Python SDK

```
CleanInvalidLdapIAM2BindingAction action = CleanInvalidLdapIAM2BindingAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CleanInvalidLdapIAM2BindingAction.Result res = action.call()
```

7.1.4.7 QueryIAM2LdapBinding

API Request

URLs

```
GET zstack/v1/iam2/ldap/bindings
```

```
GET zstack/v1/iam2/ldap/bindings/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/ldap/bindings?
q=accountUuid=bb452952218931cdb9c058085748dc8a
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/iam2/ldap/bindings/
c757b80ef90f37dba57f180ac1b52269
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryIAM2LdapBinding**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "5e66b22cb6d33a87802d12b4ee280f64",
      "ldapUid": "ou\u003dEmployee,uid\u003dtest",
      "ldapServerUuid": "03f1ff7e314232ebbb365c7fc62878f3",
      "resourceUuid": "3946f8a48c6d320fbddd0e6c0c30c281"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventories	List	See inventories .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1

Name	Type	Description	Starting Version
ldapUid	String	The AD/LDAP entry UUID.	3.5.1
ldapServerUuid	String	The AD/LDAP server UUID.	3.5.1
resourceUuid	String	The UUID of the associated resource.	3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1

SDK Sample

Java SDK

```
QueryIAM2LdapBindingAction action = new QueryIAM2LdapBindingAction();
action.conditions = asList("accountUuid=cf0b19d0309c31e2bf9d2f9e50a3a013");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryIAM2LdapBindingAction.Result res = action.call();
```

Python SDK

```
QueryIAM2LdapBindingAction action = QueryIAM2LdapBindingAction()
action.conditions = ["accountUuid=5f37176baf4b35479f25bf375879c83d"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryIAM2LdapBindingAction.Result res = action.call()
```

7.1.4.8 SyncLdapServer

API Request

URLs

```
PUT zstack/v1/ldap/servers/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncLdapServer": {},
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"syncLdapServer":{}}' http://localhost:8080/zstack/v1/
ldap/servers/7a3718959bae3ac88e0b828e06ab2e22/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.1
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response**Sample Response**

```
{
  "inventory": {
    "uuid": "14dc461677b23ea1a984849f501a7152"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventory	LongJobInventory	See inventory .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
name	String	The resource name.	3.5.1
description	String	The detailed description of the resource.	3.5.1
apild	String	The API ID used to associate with the task progress.	3.5.1
jobName	String	The job name.	3.5.1
jobData	String	The job data.	3.5.1
jobResult	String	The job result.	3.5.1
targetResourceUuid	String	The target resource UUID.	3.5.1

Name	Type	Description	Starting Version
management NodeId	String	The management node UUID.	3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1
state	LongJobState	See state .	3.5.1

#state

Name	Type	Description	Starting Version
name	String	The resource name.	3.5.1
ordinal	int		3.5.1

SDK Sample

Java SDK

```
SyncLdapServerAction action = new SyncLdapServerAction();
action.uuid = "7a3718959bae3ac88e0b828e06ab2e22";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SyncLdapServerAction.Result res = action.call();
```

Python SDK

```
SyncLdapServerAction action = SyncLdapServerAction()
action.uuid = "7a3718959bae3ac88e0b828e06ab2e22"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SyncLdapServerAction.Result res = action.call()
```

7.1.4.9 CreateOAuthClient**API Request**

URLs

```
POST zstack/v1/create/oauth2/client
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
```

```

    "name": "test",
    "description": "test",
    "clientId": "756770202fcd36bfbaa00ea7dea7f5ff",
    "clientSecret": "8255b36a4e0e38ffa20dda1a079aa687",
    "authorizationUrl": "http://zstack.com/code",
    "tokenUrl": "http://zstack.com/token",
    "userInfoUrl": "http://zstack.com/userinfoUrl",
    "redirectUrl": "http://zstack.com/redirectUrl",
    "logoutUrl": "http://zstack.com/logoutUrl",
    "loginType": "iam1",
    "identityProvider": "zf-soft",
    "pluginUuid": "393e36ee1b9e3dd281ef04443a0b4c73",
    "urlTemplate": "http://172.24.194.28:5000/oauth1/verify/?username
\u003d${username}\u0026sessionId\u003d${sessionId}\u0026userUuid\u003d
${userUuid}\u0026accountUuid\u003d${accountUuid}\u0026loginType\u003d
${loginType}\u0026userType\u003d${userType}\u0027",
    "scopeList": [
        "559bf858d9cd35ce830dcfbfc2195195"
    ]
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"test","description":"test","clientId":"756770202fcd36bfbaa00ea7dea7f5ff",
"code","tokenUrl":"http://zstack.com/
token","userInfoUrl":"http://zstack.com/
userinfoUrl","redirectUrl":"http://zstack.com/
redirectUrl","logoutUrl":"http://zstack.com/
logoutUrl","loginType":"iam1","identityProvider":"zf-
soft","pluginUuid":"393e36ee1b9e3dd281ef04443a0b4c73","urlTemplate":"http://172.2
oauth1/verify/?username=${username}&sessionId=${sessionId}&userUuid=
${userUuid}&accountUuid=${accountUuid}&loginType=
${loginType}&userType=${userType}","scopeList":
["559bf858d9cd35ce830dcfbfc2195195"]}]}' http://localhost:8080/zstack/
v1/create/oauth2/client

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
clientId	String	body (contained in the params structure)	The client ID.		4.5.0
clientSecret	String	body (contained in the params structure)	Optional. The client key.		4.5.0
authorizationUrl	String	body (contained in the params structure)	Optional. The authentication url.		4.5.0
tokenUrl	String	body (contained in the params structure)	The authentication token url.		4.5.0
loginType	String	body (contained in the params structure)	The login type.	- cas-iam1 - cas-ima2 - oauth2-iam1 - oauth2-iam2	4.5.0
clientType	String	body (contained in the params structure)	The client type.		4.5.0
grantType	String	body (contained in the params structure)	The authentication mode.		4.5.0
urlTemplate (可选)	String	body (contained in	The address skipped to		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)	after the authentication.		
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.5.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		4.5.0
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. The user tag.		4.5.0
userinfoUrl	String	body (contained in the params structure)	Optional. User information url.		4.7.21
redirectUrl	String	body (contained in the params structure)	Optional. User redirect url.		4.7.21
logoutUrl	String	body (contained in the params structure)	Optional. Logout url.		4.7.21
scopeList	List	body (contained in the params structure)	Optional. Permission scope.		5.1.8
identityProvider	String	body (contained in the params structure)	Optional. The identity provider.		5.1.8
pluginUuid (可选)	String	body (contained in	The plugin UUID.		5.3.20

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			

API Response

Sample Response

```
{
  "inventory": {
    "clientId": "b7e1d25d8ae833f8b6f13c448efbfb4a",
    "clientSecret": "64a93cc0b9263993a25ef033994afc10",
    "authorizationUrl": "http://zstack.com/code",
    "tokenUrl": "http://zstack.com/token",
    "userinfoUrl": "http://zstack.com/userinfoUrl",
    "uuid": "628dbf582da836ba9693c8813f98371f",
    "loginMNUUrl": "http://127.0.0.1:8080/zstack/sso/oauth2/",
    "redirectUrl": "http://zstack.com/redirectUrl"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventory	OAuth2ClientInventory	See inventory .	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0

#inventory

Name	Type	Description	Starting Version
clientId	String	The client ID.	4.5.0
clientSecret	String	The client key.	4.5.0
authorizationUrl	String	The authentication url.	4.5.0
tokenUrl	String	The authentication token url.	4.5.0
grantType	String	The authentication mode.	4.5.0
uuid	String	The resource UUID.	4.5.0

Name	Type	Description	Starting Version
name	String	The resource name.	4.5.0
description	String	The detailed information of the resource.	4.5.0
clientType	String	The client type.	4.5.0
loginType	String	The login type: - cas-iam1 - cas-ima2 - oauth2-iam1 - oauth2-iam2	4.5.0
loginMNUrl	String	The password-free login url.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0
accountUuid	String	The account UUID.	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
Create0AuthClientAction action = new Create0AuthClientAction();
action.name = "test";
action.description = "test";
action.clientId = "756770202fcd36bfbbaa00ea7dea7f5ff";
action.clientSecret = "8255b36a4e0e38ffa20dda1a079aa687";
action.authorizationUrl = "http://zstack.com/code";
action.tokenUrl = "http://zstack.com/token";
action.userinfoUrl = "http://zstack.com/userinfoUrl";
action.redirectUrl = "http://zstack.com/redirectUrl";
action.logoutUrl = "http://zstack.com/logoutUrl";
action.loginType = "iam1";
action.identityProvider = "zf-soft";
action.pluginUuid = "393e36ee1b9e3dd281ef04443a0b4c73";
action.urlTemplate = "http://172.24.194.28:5000/oauth1/verify/?username=${username}&sessionId=${sessionId}&userUuid=${userUuid}&accountUuid=${accountUuid}&loginType=${loginType}&userType=${userType}'";
action.scopeList = asList("559bf858d9cd35ce830dcfbfc2195195");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
Create0AuthClientAction.Result res = action.call();
```

Python SDK

```
Create0AuthClientAction action = Create0AuthClientAction()
action.name = "test"
action.description = "test"
action.clientId = "756770202fcd36bfbbaa00ea7dea7f5ff"
action.clientSecret = "8255b36a4e0e38ffa20dda1a079aa687"
action.authorizationUrl = "http://zstack.com/code"
action.tokenUrl = "http://zstack.com/token"
action.userinfoUrl = "http://zstack.com/userinfoUrl"
action.redirectUrl = "http://zstack.com/redirectUrl"
action.logoutUrl = "http://zstack.com/logoutUrl"
action.loginType = "iam1"
action.identityProvider = "zf-soft"
action.pluginUuid = "393e36ee1b9e3dd281ef04443a0b4c73"
action.urlTemplate = "http://172.24.194.28:5000/oauth1/verify/?username=${username}&sessionId=${sessionId}&userUuid=${userUuid}&accountUuid=${accountUuid}&loginType=${loginType}&userType=${userType}'"
action.scopeList = [559bf858d9cd35ce830dcfbfc2195195]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateOAuthClientAction.Result res = action.call()
```

7.1.4.10 UpdateOAuthClient

API Request

URLs

```
POST zstack/v1/update/oauth2/client
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "test",
    "description": "test",
    "clientId": "9f44e569b86c3883b0295fcab980e945",
    "clientSecret": "8b151acd0f7533538ed9e9315fadcaca",
    "authorizationUrl": "http://zstack.com/code",
    "tokenUrl": "http://zstack.com/token",
    "redirectUrl": "http://zstack.com/redirectUrl",
    "userInfoUrl": "http://zstack.com/userinfoUrl",
    "identityProvider": "zf-soft",
    "pluginUuid": "0b3b9a43772439c3aaa102fe8361b3d1",
    "loginType": "iam1",
    "logoutUrl": "http://zstack.com/logouturl",
    "scopeList": [
      "d8f4a70ef87b35c986336a88dd5bafd1"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"test","description":"test","clientId":"9f44e569b86c3883b0295fcab980e945"
code","tokenUrl":"http://zstack.com/
token","redirectUrl":"http://zstack.com/
redirectUrl","userInfoUrl":"http://zstack.com/
userinfoUrl","identityProvider":"zf-
soft","pluginUuid":"0b3b9a43772439c3aaa102fe8361b3d1","loginType":"iam1","logoutU
```

```
logouturl", "scopeList": ["d8f4a70ef87b35c986336a88dd5bafd1"]]]}' http://localhost:8080/zstack/v1/update/oauth2/client
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in the params structure)	The resource UUID.		4.5.0
name	String	body (contained in the params structure)	Optional. The resource name.		4.5.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
clientId	String	body (contained in the params structure)	Optional. The client ID.		4.5.0
clientSecret	String	body (contained in the params structure)	Optional. The client key.		4.5.0
authorizationUrl	String	body (contained in the params structure)	Optional. The authentication url.		4.5.0
tokenUrl	String	body (contained in the params structure)	The authentication token url.		4.5.0
loginType	String	body (contained in the params structure)	The login type: - cas-iam1 - cas-ima2 - oauth2-iam1		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
			oauth2-iam2		
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. The user tag.		4.5.0
redirectUrl	String	body (contained in the params structure)	Optional. User information url.		4.7.21
userinfoUrl	String	body (contained in the params structure)	Optional. User redirect url.		4.7.21
logoutUrl	String	body (contained in the params structure)	Optional. Logout url.		4.7.21
scopeList	List	body (contained in the params structure)	Optional. The permission scope.		5.1.8
identityProvider	String	body (contained in the params structure)	Optional. The identity provider.		5.1.8
pluginUuid (可选)	String	body (contained in the params structure)	The plugin UUID.		5.3.20

API Response

Sample Response

```
{
  "inventory": {
    "clientId": "90de13d7ad483cb582bd14c792bd1ba7",
    "clientSecret": "e9107bd9f6213e29926da80c016a9639",
```

```

    "authorizationUrl": "http://zstack.com/code",
    "tokenUrl": "http://zstack.com/token",
    "userinfoUrl": "http://zstack.com/userinfoUrl",
    "uuid": "76467fb551ca362d98d6ba0782f3bb4c",
    "loginMNUrL": "http://127.0.0.1:8080/zstack/sso/oauth2/",
    "redirectUrl": "http://zstack.com/redirectUrl"
  }
}

```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventory	OAuth2ClientInventory	See inventory .	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0

#inventory

Name	Type	Description	Starting Version
clientId	String	The client ID.	4.5.0
clientSecret	String	The client key.	4.5.0
authorizationUrl	String	The authentication url.	4.5.0
tokenUrl	String	The authentication token url.	4.5.0
grantType	String	The authentication mode.	4.5.0
uuid	String	The resource UUID.	4.5.0
name	String	The resource name.	4.5.0
description	String	The detailed description of the resource.	4.5.0
clientType	String	The client type.	4.5.0
loginType	String	The login type: - cas-iam1 - cas-ima2 - oauth2-iam1 - oauth2-iam2	4.5.0

Name	Type	Description	Starting Version
loginMNUrl	String	The password-free login url.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0
accountUuid	String	The account UUID.	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
UpdateOAuthClientAction action = new UpdateOAuthClientAction();
action.name = "test";
action.description = "test";
action.clientId = "9f44e569b86c3883b0295fcab980e945";
action.clientSecret = "8b151acd0f7533538ed9e9315fadcaca";
```

```

action.authorizationUrl = "http://zstack.com/code";
action.tokenUrl = "http://zstack.com/token";
action.redirectUrl = "http://zstack.com/redirectUrl";
action.userInfoUrl = "http://zstack.com/userinfoUrl";
action.identityProvider = "zf-soft";
action.pluginUuid = "0b3b9a43772439c3aaa102fe8361b3d1";
action.loginType = "iam1";
action.logoutUrl = "http://zstack.com/logouturl";
action.scopeList = asList("d8f4a70ef87b35c986336a88dd5bafd1");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateOAuthClientAction.Result res = action.call();

```

Python SDK

```

UpdateOAuthClientAction action = UpdateOAuthClientAction()
action.name = "test"
action.description = "test"
action.clientId = "9f44e569b86c3883b0295fcab980e945"
action.clientSecret = "8b151acd0f7533538ed9e9315fadcaca"
action.authorizationUrl = "http://zstack.com/code"
action.tokenUrl = "http://zstack.com/token"
action.redirectUrl = "http://zstack.com/redirectUrl"
action.userInfoUrl = "http://zstack.com/userinfoUrl"
action.identityProvider = "zf-soft"
action.pluginUuid = "0b3b9a43772439c3aaa102fe8361b3d1"
action.loginType = "iam1"
action.logoutUrl = "http://zstack.com/logouturl"
action.scopeList = [d8f4a70ef87b35c986336a88dd5bafd1]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateOAuthClientAction.Result res = action.call()

```

7.1.4.11 GetOAuth2Token

API Request

URLs

```
GET zstack/v1/get/oauth2/token
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/get/oauth2/token

```

Required Parameters

Name	Type	Location	Description	Valid Values	Starting Version
systemTags	List	body	Optional. The system tags.		4.6.21
userTags	List	body	Optional. The user tags.		4.6.21

API Response

Response Sample

```
{
  "inventory": {
    "accessToken": "eyJhbGciOiJSUzI1NiIsInR5cCIgOjEiAmlldUIiwia2lkIiA6ICJGV3NnY2k4cENJQkZFY1hoVkZmNkhzVUKwU1FmekN2SGJ0LVFFOHc4OXJZIn0.eyJleHAiOiE2NmM1NzQ3NjcsImIhdCI6MTY2MzU3NDQ2NywiYXV0aF90aw1lIjoXNjYzNTc0NDY3LCJqdGkiOiI2MzQwOTRjNy00ZjA3LTRlZGMtYjMxMS05MmE5NDc0NWwIYTtkiLCJpc3MiOiJodHRwczoVLzE3Mi4yMC4xNi4xODg6ODQ0My9hdXRoL3JlYWxtcy9jbG91ZCIsImF1ZCI6ImFjY291bnQiLCJzdWIiOiJknjYyYWNiYi0yMjYxLTQ2ODctYjNkZS0zOTI2OTA0ZWRLnzQiLCJ0eXAiOiJCZWFiZXIiLCJhenAiOiJjbG91ZF9zc28iLCJzZXNzaW9uX3N0YXRIJoimTM1MjM0ZDutOTEyYi00NzY2LTThMjktN2Q5MTdkYjE2YTBMiwiYWnyIjoimSIImFsbG93ZWQtY291bnQ3P2LucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOnsicm9sZXMiOlslb2ZmbGluc2V9hy2Nlc3MiLCJkZWRhdwX0LXJvbGVzLWnsb3VkJiwiidW1hX2F1dGhvcm16YXRpb24iXX0sInJlc291cmNlX2FjY2VzcyI6eyJhY2NvdW50Ijpw7InJvbGVzIjpbIm1hbmFnZS1hY2NvdW50IiwibWFuYwdlLWFjY291bnQtY291bnQ3bG91ZCJ2aWV3LXBbyb2ZpbGUixX19LCJzY29wZSI6Im9wZW5pZCBwcm9maWxlIGVtYWlsIiwic2lkIjoimTM1MjM0ZDutOTEyYi00NzY2LTThMjktN2Q5MTdkYjE2YTBMiwiZW1haWxfdmVyawZpZWQiOmZhbnHNLCJuYw1lIjoimcw1leXUGemhhbmciLCJwcmVmZXJyZWRfdXNlcm5hbWUiOiJxaXV5dSIImdpdmVuX25hbWUiOiJxaXV5dSIImZhbWlseV9uYw1lIjoiemhhbmciLCJlbWFPbCI6IjE0TQ00TcyNkBxcS5jb20ifQ.Mun8NSANoPW3IJRLFYSji8r243ydDYCARMXRstTL1vmVp56E3wpfJy8LAf_9PPAo-ryoTkuj102Z_nDV4F5LMQ_QASwqIMoBKzg3_Umf-D2pPlTC9BjMIUCeK0qoFiuJq23IS7IN9LYAHDRMDyP6MLUjkyqw-sWgq1l3boT7FcHfkl6cGBzFDLigpsckkm_b7yiN8LDxBdw7SNTcg_A06D7ZipPG09up8hiatq_4fY1vnhfIBbL9pa8vx4wKoGGR8B_-u06PrCALot08QRw06YB084n56dzjD3hCRE9FA9tHB7krTCMnHZN-Bf0QptsYEzwU5zuVIRke9SM88Kg",
    "idToken": "eyJhbGciOiJSUzI1NiIsInR5cCIgOjEiAmlldUIiwia2lkIiA6ICJGV3NnY2k4cENJQkZFY1hoVkZmNkhzVUKwU1FmekN2SGJ0LVFFOHc4OXJZIn0.eyJleHAiOiE2NmM1NzQ3NjcsImIhdCI6MTY2MzU3NDQ2NywiYXV0aF90aw1lIjoXNjYzNTc0NDY3LCJqdGkiOiI2MzQwOTRjNy00ZjA3LTRlZGMtYjMxMS05MmE5NDc0NWwIYTtkiLCJpc3MiOiJodHRwczoVLzE3Mi4yMC4xNi4xODg6ODQ0My9hdXRoL3JlYWxtcy9jbG91ZCIsImF1ZCI6ImFjY291bnQiLCJzdWIiOiJknjYyYWNiYi0yMjYxLTQ2ODctYjNkZS0zOTI2OTA0ZWRLnzQiLCJ0eXAiOiJCZWFiZXIiLCJhenAiOiJjbG91ZF9zc28iLCJzZXNzaW9uX3N0YXRIJoimTM1MjM0ZDutOTEyYi00NzY2LTThMjktN2Q5MTdkYjE2YTBMiwiYWnyIjoimSIImFsbG93ZWQtY291bnQ3P2LucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOnsicm9sZXMiOlslb2ZmbGluc2V9hy2Nlc3MiLCJkZWRhdwX0LXJvbGVzLWnsb3VkJiwiidW1hX2F1dGhvcm16YXRpb24iXX0sInJlc291cmNlX2FjY2VzcyI6eyJhY2NvdW50Ijpw7InJvbGVzIjpbIm1hbmFnZS1hY2NvdW50IiwibWFuYwdlLWFjY291bnQtY291bnQ3bG91ZCJ2aWV3LXBbyb2ZpbGUixX19LCJzY29wZSI6Im9wZW5pZCBwcm9maWxlIGVtYWlsIiwic2lkIjoimTM1MjM0ZDutOTEyYi00NzY2LTThMjktN2Q5MTdkYjE2YTBMiwiZW1haWxfdmVyawZpZWQiOmZhbnHNLCJuYw1lIjoimcw1leXUGemhhbmciLCJwcmVmZXJyZWRfdXNlcm5hbWUiOiJxaXV5dSIImdpdmVuX25hbWUiOiJxaXV5dSIImZhbWlseV9uYw1lIjoiemhhbmciLCJlbWFPbCI6IjE0TQ00TcyNkBxcS5jb20ifQ.Mun8NSANoPW3IJRLFYSji8r243ydDYCARMXRstTL1vmVp56E3wpfJy8LAf_9PPAo-ryoTkuj102Z_nDV4F5LMQ_QASwqIMoBKzg3_Umf-D2pPlTC9BjMIUCeK0qoFiuJq23IS7IN9LYAHDRMDyP6MLUjkyqw-sWgq1l3boT7FcHfkl6cGBzFDLigpsckkm_b7yiN8LDxBdw7SNTcg_A06D7ZipPG09up8hiatq_4fY1vnhfIBbL9pa8
```



```

vX4wKoGGR8B_-u06PrcAL0t08QrW06YB084n56dzjD3hCRe9fA9tHB7krTCMnHZN-
Bf0QptsYEzwU5zUvIRke9SM88Kg",
  "refreshToken": "eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICJGV3NnY2k4cENJQkZFY1hoVkJmZmNkhzVUkwU1FmekN2SGJ0LVFFOHC40XJZIn
0.eyJleHAiOjE2NjM1NzQ3NjcsImhhdCI6MTY2MzU3NDQ2NywiYXV0aF90aw1lIjoxNjYzNTc0NDY3LCJqdGkiOiI2MzQwOTRjNy00ZjA3LTRlZGMtYjMxMS05MmE5NDc0NW
IwYTKiLCJpc3MiOiJodHRwczovLzE3Mi4yMC4xNi4xODg6ODQ0My9hdXRoL3JlYWxtcy9j
bG91ZCI6ImF1ZCI6ImFjY291bnQ1LCJzZWZlIjoiJkNjYyYWNiYi0yMjYxLTQ2ODctYjNkZS
0zOTI2OTA0ZWRLNzQiLCJ0eXAiOiJCZWZyZXIiLCJhenAiOiJjbG91ZGF9Zzc28iLCJZZXNz
aw9uX3N0YXRlIjoibm90ZDUtOTYyYi00NzY2LTlhMjktN2Q5MTdkYjE2YTBMiwiYW
NyIjoimSI6ImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZsbV9hY2Nlc3MiOmsicm9s
ZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJkZWZhdWx0LXJvbGVzLWNSb3VkiwiidW1hX2F1dG
hvcml6YXRpb24iXX0sInJlc291cmNlX2FjY2VzcyI6eyJhY2NvdW50Ijp7InJvbGVzIjpb
Im1hbWFnZS1hY2NvdW50IiwibWZlbnRlLWFjY291bnQ1bGlua3MiLCJ2aWV3LXByb2ZpbG
UiXX19LCJzY29wZSI6Im9wZW5pZCBwcm9maWw1IGVtYwlsIiwic2lkIjoibm90ZDUt
OTEyYi00NzY2LTlhMjktN2Q5MTdkYjE2YTBMiwiZW1haWxfdmVyaWZpZWQ1OmZhbnNlc3
JuYw1lIjoicWl1eXUgemhhbmciLCJwcmVmaWw1IGVtYwlsIiwic2lkIjoibm90ZDUt
dmVuaW5hbWUiOiJjaXV5dSIsImZhbnRlbnRlbnRlbnRlbnRlbnRlbnRlbnRlbnRlbnRlbnRlbn
Q00TcyNkBXcS5jb20ifQ.Mun8NSAnoPW3IjRlFySji8r243ydyDYCARMXRstTl
lM1vsmVp56E3wpfJy8LAf_9PPAo-ryoTku102Z_nDV4F5lMQ_QASwqIMoBKzg3_Umf
-D2pPlTC9BjMIuCeK0qoFiuJq23IS7IN9LYAHRMdyP6MLUjkyqW-sWgq1l3boT
7FcHfkl6cGBzFDLigpsckkm_b7yiN8LDxBdw7SNTcg_A06D7ZipPG09up8hiatq_4fY1vn
hfiBbL9pa8vX4wKoGGR8B_-u06PrcAL0t08QrW06YB084n56dzjD3hCRe9fA9tH
B7krTCMnHZN-Bf0QptsYEzwU5zUvIRke9SM88Kg",
  "uuid": "58ac3d5235f230cbbac1bcf966c43685",
  "clientUuid": "b2d39b32cba335888e6c6d9a15c9ce3d",
  "userUuid": "1489d2a1d93531fffb83f2c49cd4cedcd"
}
}

```

Name	Type	Description	Starting Version
success	boolean		4.6.21
inventory	OAuth2TokenInventory	See inventory .	4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.21

#inventory

Name	Type	Description	Starting Version
accessToken	String	The access token.	4.6.21
idToken	String	The id token.	4.6.21
refreshToken	String	The refresh token.	4.6.21
uuid	String	The resource UUID.	4.6.21
clientUuid	String	The client UUID.	4.6.21

Name	Type	Description	Starting Version
userId	String	The user UUID.	4.6.21
createDate	Timestamp	The creation date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.6.21
description	String	The brief description of the error.	4.6.21
details	String	The details about the error.	4.6.21
elaboration	String	The reserved field. Default value: null.	4.6.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.21

SDK Sample

Java SDK

```
GetOAuth2TokenAction action = new GetOAuth2TokenAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetOAuth2TokenAction.Result res = action.call();
```

Python SDK

```
GetOAuth2TokenAction action = GetOAuth2TokenAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetOAuth2TokenAction.Result res = action.call()
```

7.1.4.12 CreateCasClient

API Request

URLs

```
POST zstack/v1/create/cas/client
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "test",
    "description": "test",
    "casServerLoginUrl": "http://zstack.com/login",
    "casServerUrlPrefix": "http://zstack.com",
    "serverName": "http://127.0.0.1:8080",
    "loginType": "iam1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \-X POST -d
'{"params":
{"name":"test","description":"test","casServerLoginUrl":"http://zstack.com/
login","casServerUrlPrefix":"http://zstack.com","serverName":"http://127.0.0.1:80
\
http://localhost:8080/zstack/v1/create/cas/client
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in	The resource name.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
casServerLoginUrl	String	body (contained in the params structure)	casServerLoginUrl.		4.5.0
casServerUrlPrefix	String	body (contained in the params structure)	casServerUrlPrefix.		4.5.0
serverName	String	body (contained in the params structure)	The mn address (http://{mn_ip:port}/8080).		4.5.0
loginType	String	body (contained in the params structure)	The login type: - cas-iam1 - cas-ima2 - oauth2-iam1 - oauth2-iam2		4.5.0
urlTemplate (可选)	String	body (contained in the params structure)	Optional. The address skipped to after the password-free login.		4.5.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		4.5.0
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. The user tag.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "casServerUrlPrefix": "http://zstack.com",
    "serverName": "http://127.0.0.1",
    "state": "Enabled",
    "uuid": "6bc5a073efd73d6d861d348694abcc91",
    "loginMnUrl": "http://127.0.0.1:8080/zstack/sso/cas/"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventory	CasClientInventory	See inventory	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.5.0

#inventory

Name	Type	Description	Starting Version
casServerLoginUrl	String	casServerLoginUrl.	4.5.0
casServerUrlPrefix	String	casServerUrlPrefix.	4.5.0
serverName	String	The mn address (http://{mn_ip:port}/8080).	4.5.0

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.5.0
name	String	The resource name.	4.5.0
description	String	The detailed description of the resource.	4.5.0
clientType	String	clientType.	4.5.0
loginType	String	The login type: - cas-iam1 - cas-ima2 - oauth2-iam1 - oauth2-iam2	4.5.0
loginMNUrl	String	The password-free login url.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0
accountUuid	String	The account UUID.	4.5.0
state	CasState	See state	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CasState		4.5.0
Disabled	CasState		4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0

Name	Type	Description	Starting Version
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
CreateCasClientAction action = new CreateCasClientAction();
action.name = "test";
action.description = "test";
action.casServerLoginUrl = "http://zstack.com/login";
action.casServerUrlPrefix = "http://zstack.com";
action.serverName = "http://127.0.0.1:8080";
action.loginType = "iam1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateCasClientAction.Result res = action.call();
```

Python SDK

```
CreateCasClientAction action = CreateCasClientAction()
action.name = "test"
action.description = "test"
action.casServerLoginUrl = "http://zstack.com/login"
action.casServerUrlPrefix = "http://zstack.com"
action.serverName = "http://127.0.0.1:8080"
action.loginType = "iam1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreateCasClientAction.Result res = action.call()
```

7.1.4.13 UpdateCasClient

API Request

URLs

```
POST zstack/v1/update/cas/client
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "uuid": "c9b85d8d64353f89a0fc97833dbda36e",
    "description": "test",
    "name": "test",
    "casServerLoginUrl": "http://zstack.com/login",
    "casServerUrlPrefix": "http://zstack.com",
    "serverName": "http://127.0.0.1:8080",
    "loginType": "iam1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"uuid":"c9b85d8d64353f89a0fc97833dbda36e","description":"test","name":"test","casServerLoginUrl":"http://zstack.com/login","casServerUrlPrefix":"http://zstack.com","serverName":"http://127.0.0.1:8080"}
}' \
http://localhost:8080/zstack/v1/update/cas/client
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in	The resource UUID.		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
name	String	body (contained in the params structure)	Optional. The resource name.		4.5.0
casServerLoginUrl	String	body (contained in the params structure)	Optional. casServerLoginUrl.		4.5.0
casServerUrlPrefix	String	body (contained in the params structure)	Optional. casServerUrlPrefix		4.5.0
serverName	String	body (contained in the params structure)	Optional. The mn address (http://{mn_ip:port}/8080).		4.5.0
loginType	String	body (contained in the params structure)	Optional. The login type: - cas-iam1 - cas-ima2 - oauth2-iam1 - oauth2-iam2		4.5.0
systemTags	List	body	Optional. The system tags.		4.5.0
userTags	List	body	Optional. The user tags.		4.5.0

API Response

Sample Response

```
{
  "inventory": {
    "casServerLoginUrl": "http://zstack.com/login",
    "casServerUrlPrefix": "http://zstack.com",
    "serverName": "http://127.0.0.1:8080/",
    "uuid": "5068f4c641153a3d9353c3326dc1dd5e",
    "name": "test",
    "description": "test",
    "loginType": "iam2",
    "loginMnUrl": "http://127.0.0.1:8080/zstack/sso/cas/"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventory	CasClientInventory	See inventory	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.5.0

#inventory

Name	Type	Description	Starting Version
casServerLoginUrl	String	casServerLoginUrl.	4.5.0
casServerUrlPrefix	String	casServerUrlPrefix.	4.5.0
serverName	String	The mn address (http://{mn_ip:port}/8080).	4.5.0
uuid	String	The resource UUID.	4.5.0
name	String	The resource name.	4.5.0
description	String	The detailed description of the resource.	4.5.0
clientType	String	clientType.	4.5.0
loginType	String	The login type: - cas-iam1 - cas-ima2 - oauth2-iam1	4.5.0

Name	Type	Description	Starting Version
		oauth2-iam2	
loginMNUrl	String	The password-free url.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0
accountUuid	String	The account UUID.	4.5.0
state	CasState	See state	4.5.0

#state

Name	Type	Description	Starting Version
Enabled	CasState		4.5.0
Disabled	CasState		4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.5.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

SDK Sample

Java SDK

```
UpdateCasClientAction action = new UpdateCasClientAction();
action.uuid = "c9b85d8d64353f89a0fc97833dbda36e";
action.description = "test";
action.name = "test";
action.casServerLoginUrl = "http://zstack.com/login";
action.casServerUrlPrefix = "http://zstack.com";
action.serverName = "http://127.0.0.1:8080";
action.loginType = "iam1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateCasClientAction.Result res = action.call();
```

Python SDK

```
UpdateCasClientAction action = UpdateCasClientAction()
action.uuid = "c9b85d8d64353f89a0fc97833dbda36e"
action.description = "test"
action.name = "test"
action.casServerLoginUrl = "http://zstack.com/login"
action.casServerUrlPrefix = "http://zstack.com"
action.serverName = "http://127.0.0.1:8080"
action.loginType = "iam1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateCasClientAction.Result res = action.call()
```

7.1.4.14 DeleteSSOClient

API Request

URLs

```
POST zstack/v1/delete/sso/client
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "uuid": "3e54cb2e27ff31dda2c49851bf2662d2",
    "deleteMode": "Permissive"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl示例

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"uuid":"3e54cb2e27ff31dda2c49851bf2662d2","deleteMode":"Permissive"}}'
http://localhost:8080/zstack/v1/delete/sso/client
```

参数列表

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in the params structure)	The resource UUID.		4.5.0
deleteMode	String	body (contained in the params structure)	Optional. The deletion mode: • Permissive • Enforcing, Permissive		4.5.0
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. The user tag.		4.5.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteSSOClientAction action = new DeleteSSOClientAction();
action.uuid = "3e54cb2e27ff31dda2c49851bf2662d2";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteSSOClientAction.Result res = action.call();
```

Python SDK

```
DeleteSSOClientAction action = DeleteSSOClientAction()
action.uuid = "3e54cb2e27ff31dda2c49851bf2662d2"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteSSOClientAction.Result res = action.call()
```

7.1.4.15 GetSSOClient

API Request

URLs

```
GET zstack/v1/get/sso/client
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-X GET http://localhost:8080/zstack/v1/get/sso/client
```

Required Parameters

Name	Type	Location	Description	Valid Values	Starting Version
systemTags	List	body	Optional. The system tags.		4.6.21
userTags	List	body	Optional. The user tags.		4.6.21

API Response

Response Sample

```
{
  "inventories": [
    {
      "uuid": "1fbb7c4cb98d38beb31fa9bd74bffa347",
      "name": "test",
      "clientType": "OIDC",
      "loginMNUrl": "http://127.0.0.1:8080/zstack/sso/oauth2/"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.6.21
inventories	List	See inventories .	4.6.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.6.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.6.21
name	String	The resource name.	4.6.21
description	String	The resource description.	4.6.21
clientType	String	The client type.	4.6.21
loginType	String	The login type.	4.6.21
loginMNUrl	String	The url skipped to after the login.	4.6.21
createDate	Timestamp	The creaion date.	4.6.21
lastOpDate	Timestamp	The last operation date.	4.6.21
accountUuid	String	The account UUID.	4.6.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.6.21
description	String	The brief description of the error.	4.6.21
details	String	The details about the error.	4.6.21
elaboration	String	The reserved field. Default value: null.	4.6.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.6.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.6.21

SDK Sample

Java SDK

```
GetSSOClientAction action = new GetSSOClientAction();
GetSSOClientAction.Result res = action.call();
```

Python SDK

```
GetSSOClientAction action = GetSSOClientAction()
```



```
GetSSOClientAction.Result res = action.call()
```

7.1.4.16 UpdateSSORedirectTemplate

API Request

URLs

```
POST zstack/v1/update/sso/redirectTemplate
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "uuid": "35cc6909f0f23e55a209cd552d8bc938",
    "redirectTemplate": "http://zstack.com/userinfoUrl"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X POST -d '{"params":
{"uuid":"35cc6909f0f23e55a209cd552d8bc938","redirectTemplate":"http://zstack.com/
userinfoUrl"}}'
http://localhost:8080/zstack/v1/update/sso/redirectTemplate
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in the params structure)	The resource UUID.		4.7.21

Name	Type	Location	Description	Optional Value	Starting Version
redirectTemplate	String	body (contained in the params structure)	The UI redirect address.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "inventory": {
    "uuid": "43679041066d37b28f676a49851ade69",
    "clientUuid": "3e5541e27b9c320fa4ad0a86777cc5ab",
    "redirectTemplate": "http://zstack.com/code"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
inventory	OAuth2ClientInventory	See inventory .	4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
name	String	The resource name.	4.7.21
description	String	The detailed description of the resource.	4.7.21
clientUuid	String	The client uuid.	4.7.21

Name	Type	Description	Starting Version
redirectTemplate	String	The redirect template.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

SDK示例

Java SDK

```
UpdateSSORedirectTemplateAction action = new
    UpdateSSORedirectTemplateAction();
action.uuid = "35cc6909f0f23e55a209cd552d8bc938";
action.redirectTemplate = "http://zstack.com/userinfoUrl";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
UpdateSSORedirectTemplateAction.Result res = action.call();
```

Python SDK

```
UpdateSSORedirectTemplateAction action =
    UpdateSSORedirectTemplateAction()
action.uuid = "35cc6909f0f23e55a209cd552d8bc938"
action.redirectTemplate = "http://zstack.com/userinfoUrl"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSSORedirectTemplateAction.Result res = action.call()
```

7.2 Billing Management Operations

7.2.1 CreateResourcePrice

API Request

URLs

```
POST zstack/v1/billings/prices
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "resourceName": "cpu",
    "timeUnit": "s",
    "price": 100.0,
    "dateInLong": 0.0
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth cc882c434d65428091449452ab5eb2e3" \
-X POST -d '{"params":
{"resourceName":"cpu","timeUnit":"s","price":100.0,"dateInLong":0.0}}'
```

`http://localhost:8080/zstack/v1/billings/prices`

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
resourceName	String	body (contained in the params structure)	The resource name.	- cpu - memory - rootvolume - datavolume - snapshot - gpu - pubIpVmNicBandwidthOut - pubIpVmNicBandwidthIn - pubIpVipBandwidthOut - pubIpVipBandwidthIn	0.6
resourceUnit	String	body (contained in the params structure)	Optional. The billing unit of the resource.	This parameter can be decided according to resourceName.	0.6
timeUnit	String	body (contained in the params structure)	The billing time unit.		0.6
price	double	body (contained in the params structure)	The unit price.		0.6
accountUuid	String	body (contained in the params structure)	Optional. The account UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
dateInLong	Long	body (contained in the params structure)	Optional. The long-integer time.		0.6
tableUuid	String	body (contained in the params structure)	Optional. The price table UUID.		3.7.2
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you create a resource price in ZStack Cloud, you can specify a PCI device by adding the **PCI device** option to **SystemTags**.
 - Format of the **PCI device** option: `gpuOfferingUuid::UUID`
 - Example: `gpuOfferingUuid::634b48a7bca139d9944a0f95b0c2dddf`
- When you create a resource price in ZStack Cloud, you can define the resource billing type by adding the **priceUserConfig** option to **SystemTags**.
 - Format of the **priceUserConfig** option: `priceUserConfig::xxx`. Here, xxx must be a JSON string.

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "437ade61b17e4c658844fdacfb0fc6de",
    "resourceName": "Volume",
    "resourceUnit": "1",
    "timeUnit": "s",
    "price": 2.0
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	PriceInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
resourceName	String	The resource name.	0.6

Name	Type	Description	Starting Version
resourceUnit	String	The billing unit of the resource.	0.6
timeUnit	String	The billing time unit.	0.6
price	Double	The unit price.	0.6
dateInLong	Long	The long-integer time.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
tableUuid	String	The price table UUID.	3.7.1
pciDeviceOfferings	List	See pciDeviceOfferings .	2.4

#pciDeviceOfferings

Name	Type	Description	Starting Version
priceUuid	String		2.4
pciDeviceOfferingUuid	String		2.4
createDate	Timestamp	The creation date.	2.4
lastOpDate	Timestamp	The last operation date.	2.4

SDK Sample

Java SDK

```
CreateResourcePriceAction action = new CreateResourcePriceAction();
action.resourceName = "cpu";
action.timeUnit = "s";
action.price = 100.0;
action.dateInLong = 0.0;
action.sessionId = "1360cf066fd547b9ae2d8f32beba717f";
CreateResourcePriceAction.Result res = action.call();
```

Python SDK

```
CreateResourcePriceAction action = CreateResourcePriceAction()
action.resourceName = "cpu"
action.timeUnit = "s"
action.price = 100.0
action.dateInLong = 0.0
action.sessionId = "47ca95d22d8645ef8aef8dd0110cbd92"
```



```
CreateResourcePriceAction.Result res = action.call()
```

7.2.2 DeleteResourcePrice

API Request

URLs

```
DELETE zstack/v1/billings/prices/{uuid}?deleteMode={deleteMode}
```

Headers

```
OAuth: the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "OAuth: 5332b02080a141cc961457ad3b090fe4" \
-X DELETE http://localhost:8080/zstack/v1/billings/prices/
a5c5bd6198824d89894cdd10969843ffdeleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	url	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteResourcePriceAction action = new DeleteResourcePriceAction();
action.uuid = "6a7c1ad952894d5aa2cc6b1add3062ca";
action.deleteMode = "Permissive";
action.sessionId = "e3ffecc95a5b4bcca5ce212826a14ee0";
DeleteResourcePriceAction.Result res = action.call();
```

Python SDK

```
DeleteResourcePriceAction action = DeleteResourcePriceAction()
action.uuid = "14c4eef2f36e4716a279777e503ab772"
action.deleteMode = "Permissive"
action.sessionId = "fcbca45ec9454200b1d080b0268c17d9"
DeleteResourcePriceAction.Result res = action.call()
```

7.2.3 UpdateResourcePrice

API Request

URLs

```
PUT zstack/v1/billings/prices/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateResourcePrice": {
    "setEndDateInLongBaseOnCurrentTime": false
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateResourcePrice":
{"setEndDateInLongBaseOnCurrentTime":false}}'
```

```
http://localhost:8080/zstack/v1/billings/prices/
bed31eb3ba76325ba6a1cef1a64c97a3/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource price UUID.		3.7.2
endDateInLong	Long	body (contained in the updateResourcePrice structure)	Optional. The resource price expiration date.		3.7.2
setEndDateInLongBasedOnCurrentTime	boolean	body (contained in the updateResourcePrice structure)	Optional. Sets the resource price expiration date to the current time.		3.7.2
systemTags	List	body	Optional. The system tags.		3.7.2
userTags	List	body	Optional. The user tags.		3.7.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "d7d2b639707c3e158f9f94cdfff8dc88",
    "resourceName": "Volume",
    "resourceUnit": "1",
    "timeUnit": "s",
    "price": 2.0,
    "dateInLong": 1.510669257141E12,
    "endDateInLong": 1.511029257141E12
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	3.7.2

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventory	PriceInventory	See inventory .	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
resourceName	String	The resource name.	0.6
resourceUnit	String	The billing unit of the resource.	0.6
timeUnit	String	The billing time unit.	0.6

Name	Type	Description	Starting Version
price	Double	The unit price.	0.6
dateInLong	Long	The long-integer time.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6
tableUuid	String	The price table UUID.	3.7.2
pciDeviceOfferings	List	See pciDeviceOfferings .	2.4

#pciDeviceOfferings

Name	Type	Description	Starting Version
priceUuid	String		2.4
pciDeviceOfferingUuid	String		2.4
createDate	Timestamp	The creation date.	2.4
lastOpDate	Timestamp	The last operation date.	2.4

SDK Sample

Java SDK

```
UpdateResourcePriceAction action = new UpdateResourcePriceAction();
action.uuid = "bed31eb3ba76325ba6a1cef1a64c97a3";
action.setEndDateInLongBaseOnCurrentTime = false;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateResourcePriceAction.Result res = action.call();
```

Python SDK

```
UpdateResourcePriceAction action = UpdateResourcePriceAction()
action.uuid = "bed31eb3ba76325ba6a1cef1a64c97a3"
action.setEndDateInLongBaseOnCurrentTime = false
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateResourcePriceAction.Result res = action.call()
```

7.2.4 QueryResourcePrice

API Request

URLs

```
GET zstack/v1/billings/prices
GET zstack/v1/billing/prices/{uuid}
```

Headers

```
OAuth: the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "OAuth: 0898d6895f274f83bc9d7fe85c629fc2" \
-X GET http://localhost:8080/zstack/v1/billings/prices?
q=uuid=e7a8c15058f2450dbae8a52bc3a53163
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "OAuth: 1e19b0c2877343e8b5cc27ba801cea5b" \
-X GET http://localhost:8080/zstack/v1/billing/
prices/9b1cb8fcb98a4a77b8d1b8f5c71f3ea0
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryResourcePrice`, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "127da3fe2612443187bdb5cc1c0a1b93",
      "resourceName": "Volume",
      "resourceUnit": "1",
      "timeUnit": "s",
      "price": 2.0
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
resourceName	String	The resource name.	0.6
resourceUnit	String	The billing unit of the resource.	0.6
timeUnit	String	The billing time unit.	0.6
price	Double	The unit price.	0.6

Name	Type	Description	Starting Version
dateInLong	Long	The long-integer time.	0.6
tableuuid	String	The the price table UUID.	3.7.2
pciDeviceOfferings	List	See pciDeviceOfferings .	2.4
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#pciDeviceOfferings

Name	Type	Description	Starting Version
priceUuid	String		2.4
pciDeviceOfferingUuid	String		2.4
createDate	Timestamp	The creation date.	2.4
lastOpDate	Timestamp	The last operation date.	2.4

SDK Sample

Java SDK

```
QueryResourcePriceAction action = new QueryResourcePriceAction();
action.conditions = asList("uuid=9f754355ea3147fe9e132e9e387565fc");
action.sessionId = "487ff79fdb52498ba0ebaf0825d09277";
QueryResourcePriceAction.Result res = action.call();
```

Python SDK

```
QueryResourcePriceAction action = QueryResourcePriceAction()
action.conditions = ["uuid=1c26229f970f4fe599c34d56bc78b578"]
action.sessionId = "30759bcfee93462eb88cf7fc88f3a364"
```



```
QueryResourcePriceAction.Result res = action.call()
```

7.2.5 CalculateAccountSpending

API Request

URLs

```
PUT zstack/v1/billings/accounts/{accountUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "calculateAccountSpending": {
    "dateStart": 0.0,
    "dateEnd": 1.49448017929E12
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b0422700ba91425aa234b7ad4d70e8ce" \
-X PUT -d '{"calculateAccountSpending":
{"dateStart":0.0,"dateEnd":1.510669257141E12}}' \
http://localhost:8080/zstack/v1/billings/
accounts/64df7cc87c583f069400e5184175d025/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
accountUuid	String	body (contained in the calculateAccountSpending	The account UUID.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		ding structure)			
dateStart	Long	body (contained in the calculateAccountSpending structure)	Optional. The start date.		0.6
dateEnd	Long	body (contained in the calculateAccountSpending structure)	Optional. The end date.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "total": 200.0,
  "spending": [
    {
      "spending": 0.0,
      "details": []
    }
  ]
}
```

Name	Type	Description	Starting Version
total	double	The total amount.	0.6
success	boolean	Whether the API succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation	0.6

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
spending	List	See spending .	0.6
error	ErrorCode	See error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#spending

Name	Type	Description	Starting Version
spendingType	String	The spending type.	0.6
spending	double	The total spending.	0.6
dateStart	Long	The billing start date.	0.6
dateEnd	Long	The billing end date.	0.6

Name	Type	Description	Starting Version
details	List	See details .	0.6

#details

Name	Type	Description	Starting Version
resourceUuid	String	The resource UUID.	0.6
resourceName	String	The resource name.	0.6
spending	double	The spending.	0.6
type	String	The type.	0.6

SDK Sample

Java SDK

```
CalculateAccountSpendingAction action = new CalculateAccountSpendingAction();
action.accountUuid = "b9578ee43e1745aaaddf96b2286d8055";
action.dateStart = 0.0;
action.dateEnd = 1.494480179344E12;
action.sessionId = "21b88c2399054090b13ac0b9fe067f75";
CalculateAccountSpendingAction.Result res = action.call();
```

Python SDK

```
CalculateAccountSpendingAction action = CalculateAccountSpendingAction()
action.accountUuid = "881b1c4a85bf43f39acc29d42a9c6cd6"
action.dateStart = 0.0
action.dateEnd = 1.494480179344E12
action.sessionId = "a5ae231847c14c26b62bed6e878d6c60"
CalculateAccountSpendingAction.Result res = action.call()
```

7.2.6 QueryAccountBilling

API Request

URLs

```
GET zstack/v1/billing/billings
```

```
GET zstack/v1/billing/billings/{id}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/billing/billings?
q=accountUuid=3897826bada53c65bab2298c3adf69ea
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/billing/billings/{id}?
q=accountUuid=e0936c43a701362189fa71031084d9dd
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAccountBilling**, and pressing the Tab key.



Note:

QueryAccountBilling only queries all bills, you can use **CalculateAccountSpending** to query bills by time.

API Response

Sample Response

```
{
  "inventories": [
    {
      "id": 1.0,
      "billingType": "DataVolume",
      "accountUuid": "9d0795db99e93ed49f8bc433dd54cf0e",
      "resourceUuid": "5fd7d24b821139eeaec591fc351ffd51",
      "spending": 100.0,
      "startTime": 1.559017175886E12,
      "endTime": 1.559017375886E12,
      "hypervisorType": "kvm",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	3.7.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventories	List	See inventories .	3.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
id	long	The billing ID.	3.7.0
billingType	String	The billing type.	3.7.0
accountUuid	String	The account UUID.	3.7.0
resourceUuid	String	The resource UUID.	3.7.0
resourceName	String	The resource name.	3.7.0

Name	Type	Description	Starting Version
spending	double	The spending.	3.7.0
startTime	long	The billing start time.	3.7.0
endTime	long	The billing end time.	3.7.0
hypervisorType	String	The hypervisor type.	3.7.0
createDate	Timestamp	The creation date.	3.7.0
lastOpDate	Timestamp	The last operation date.	3.7.0

SDK Sample

Java SDK

```
QueryAccountBillingAction action = new QueryAccountBillingAction();
action.conditions = asList("accountUuid=e2ce4c1abea43ac68927e62c31039a81");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAccountBillingAction.Result res = action.call();
```

Python SDK

```
QueryAccountBillingAction action = QueryAccountBillingAction()
action.conditions = ["accountUuid=9cbd77ea314a3308bfabed7f7b9c1d1c"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryAccountBillingAction.Result res = action.call()
```

7.2.7 CreatePriceTable

API Request

URLs

```
POST zstack/v1/billings/price-tables
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "table_1",
    "prices": [
      {
        "resourceName": "cpu",
        "timeUnit": "s",
        "price": 10.0
      }
    ]
  }
}
```

```

    }
  ],
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"table_1","prices":
[{"resourceName":"cpu","timeUnit":"s","price":10.0}]}}' http://
localhost:8080/zstack/v1/billings/price-tables

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The name of the price table.		3.7.2
description	String	body (contained in the params structure)	Optional. The detailed description of the price table.		3.7.2
prices	List	body (contained in the params structure)			3.7.2
resourceUuid	String	body (contained in the params structure)	Optional. The price table UUID.		3.7.2
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.7.2

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.7.2
userTags	List	body	Optional. The user tags.		3.7.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5a30b2b4c9283fb5ab1971e883d1f315",
    "name": "price table",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.2
inventory	PriceTableInventory	See inventory .	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.2
description	String	The brief description of the error.	3.7.2
details	String	The details about the error.	3.7.2

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.7.2
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.2
name	String	The name of the price table.	3.7.2
description	String	The detailed description of the price table.	3.7.2
createDate	Timestamp	The creation date.	3.7.2
lastOpDate	Timestamp	The last operation date.	3.7.2

SDK Sample

Java SDK

```
CreatePriceTableAction action = new CreatePriceTableAction();
action.name = "table_1";
action.prices = asList([resourceName:cpu, timeUnit:s, price:10.0]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreatePriceTableAction.Result res = action.call();
```

Python SDK

```
CreatePriceTableAction action = CreatePriceTableAction()
action.name = "table_1"
action.prices = [[resourceName:cpu, timeUnit:s, price:10.0]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CreatePriceTableAction.Result res = action.call()
```

7.2.8 DeletePriceTable

API Request

URLs

```
DELETE zstack/v1/billings/price-tables/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/billings/price-
tables/81bd5aa16d203ca39bc5e79e2bbc6de2
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The price table UUID.		3.7.2
systemTags	List	body	Optional. The system tags.		3.7.2
userTags	List	body	Optional. The user tags.		3.7.2

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeletePriceTableAction action = new DeletePriceTableAction();
action.uuid = "81bd5aa16d203ca39bc5e79e2bbc6de2";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeletePriceTableAction.Result res = action.call();
```

Python SDK

```
DeletePriceTableAction action = DeletePriceTableAction()
action.uuid = "81bd5aa16d203ca39bc5e79e2bbc6de2"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeletePriceTableAction.Result res = action.call()
```

7.2.9 UpdatePriceTable

API Request

URLs

```
PUT zstack/v1/billings/price-tables/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updatePriceTable": {
    "name": "table_1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updatePriceTable":{"name":"table_1","prices":
[{"resourceName":"cpu","timeUnit":"s","price":10.0}]}}'
```

```
http://localhost:8080/zstack/v1/billings/price-tables/
f1bb8cafaf1c34608582027ee823ea96/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The price table UUID.		3.7.2
name	String	body (contained in the updatePriceTable structure)	Optional. The name of the price table.		3.7.2
description	String	body (contained in the updatePriceTable structure)	Optional. The detailed description of the price table.		3.7.2
systemTags	List	body	Optional. The system tags.		3.7.2
userTags	List	body	Optional. The user tags.		3.7.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "c52a6ec9d6a033daa5305a19f13448ac",
    "name": "price table",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	3.7.2

Name	Type	Description	Starting Version
		more information, see error .	
inventory	PriceTableInventory	See inventory .	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.2
description	String	The brief description of the error.	3.7.2
details	String	The details about the error.	3.7.2
elaboration	String	The reserved field. Default value: null.	3.7.2
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.2
name	String	The name of the price table.	3.7.2
description	String	The detailed description of the price table.	3.7.2
createDate	Timestamp	The creation date.	3.7.2

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	3.7.2

SDK Sample

Java SDK

```
UpdatePriceTableAction action = new UpdatePriceTableAction();
action.uuid = "f1bb8cafaf1c34608582027ee823ea96";
action.name = "table_1";
action.prices = asList([resourceName:cpu, timeUnit:s, price:10.0]);
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdatePriceTableAction.Result res = action.call();
```

Python SDK

```
UpdatePriceTableAction action = UpdatePriceTableAction()
action.uuid = "f1bb8cafaf1c34608582027ee823ea96"
action.name = "table_1"
action.prices = [[resourceName:cpu, timeUnit:s, price:10.0]]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdatePriceTableAction.Result res = action.call()
```

7.2.10 QueryPriceTable

API Request

URLs

```
GET zstack/v1/billings/price-tables
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/billings/price-tables?
q=uuid=2cc88ae55ad13572a5ab9022a204a7af
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryPriceTable**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "3e78d076698438a6a68aa2eabdde8adf",
      "name": "price table",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.2
inventories	List	See inventories .	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.2
description	String	The brief description of the error.	3.7.2
details	String	The details about the error.	3.7.2
elaboration	String	The reserved field. Default value: null.	3.7.2
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.2
cause	ErrorCode	The root error, which is the associated root cause of the current	3.7.2

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.2
name	String	The name of the price table.	3.7.2
description	String	The detailed description of the price table.	3.7.2
createDate	Timestamp	The creation date.	3.7.2
lastOpDate	Timestamp	The last operation date.	3.7.2

SDK Sample

Java SDK

```
QueryPriceTableAction action = new QueryPriceTableAction();
action.conditions = asList("uuid=86b5cece6d0f3534a0a995ab8e60289f");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryPriceTableAction.Result res = action.call();
```

Python SDK

```
QueryPriceTableAction action = QueryPriceTableAction()
action.conditions = ["uuid=ab7f7715bdeb3a04964790c3fdfac20d"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryPriceTableAction.Result res = action.call()
```

7.2.11 AttachPriceTableToAccount

API Request

URLs

```
POST zstack/v1/billings/price-tables/{tableUuid}/accounts/
{accountUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl示例

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/
billings/price-tables/e32698fcb57d34d68bbf1c4963af95a0/accounts/
f354e135276d3e77a46f47c5c0e47b1a
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
accountUuid	String	url	The account UUID.		3.7.2
tableUuid	String	url	The price table UUID.		3.7.2
tagUuids	List	body	Optional. The tag UUID list.		3.7.2

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.7.2
userTags	List	body	Optional. The user tags.		3.7.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "8d73a258e3973399a8bcfa2164604705"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.2
inventory	PriceTableInventory	See inventory .	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.2
description	String	The brief description of the error.	3.7.2
details	String	The details about the error.	3.7.2
elaboration	String	The reserved field. Default value: null.	3.7.2

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.2
name	String	The name of the price table.	3.7.2
description	String	The detailed description of the price table.	3.7.2
createDate	Timestamp	The creation date.	3.7.2
lastOpDate	Timestamp	The last operation date.	3.7.2

SDK Sample

Java SDK

```
AttachPriceTableToAccountAction action = new AttachPriceTableToAccountAction();
action.accountUuid = "f354e135276d3e77a46f47c5c0e47b1a";
action.tableUuid = "e32698fcb57d34d68bbf1c4963af95a0";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachPriceTableToAccountAction.Result res = action.call();
```

Python SDK

```
AttachPriceTableToAccountAction action = AttachPriceTableToAccountAction()
action.accountUuid = "f354e135276d3e77a46f47c5c0e47b1a"
action.tableUuid = "e32698fcb57d34d68bbf1c4963af95a0"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
AttachPriceTableToAccountAction.Result res = action.call()
```

7.2.12 DetachPriceTableFromAccount

API Request

URLs

```
DELETE zstack/v1/billings/price-tables/{tableUuid}/accounts/{accountUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/billings/
price-tables/c27d5d1d46ce3b548ec0755d0b354084/
accounts/5b81c2a13b2f319ea97a4568575b0266
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
accountUuid	String	url	The account UUID.		3.7.2
tableUuid	String	url	The table price UUID.		3.7.2
tagUuids	List	body	Optional. The tag UUID list.		3.7.2
systemTags	List	body	Optional. The system tags.		3.7.2
userTags	List	body	Optional. The user tags.		3.7.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "34cefcfb3c8e3b97ae94d71558361b25"
  }
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.2
inventory	PriceTableInventory	See inventory .	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.2
description	String	The brief description of the error.	3.7.2
details	String	The details about the error.	3.7.2
elaboration	String	The reserved field. Default value: null.	3.7.2
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.2

Name	Type	Description	Starting Version
name	String	The name of the price table.	3.7.2
description	String	The detailed description of the price table.	3.7.2
createDate	Timestamp	The creation date.	3.7.2
lastOpDate	Timestamp	The last operation date.	3.7.2

SDK Sample

Java SDK

```
DetachPriceTableFromAccountAction action = new DetachPriceTableFromAccountAction();
action.accountUuid = "5b81c2a13b2f319ea97a4568575b0266";
action.tableUuid = "c27d5d1d46ce3b548ec0755d0b354084";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachPriceTableFromAccountAction.Result res = action.call();
```

Python SDK

```
DetachPriceTableFromAccountAction action = DetachPriceTableFromAccountAction()
action.accountUuid = "5b81c2a13b2f319ea97a4568575b0266"
action.tableUuid = "c27d5d1d46ce3b548ec0755d0b354084"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachPriceTableFromAccountAction.Result res = action.call()
```

7.2.13 ChangeAccountPriceTableBinding

API Request

URLs

```
PUT zstack/v1/billings/price-tables/{tableUuid}/accounts/{accountUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeAccountPriceTableBinding": {},
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeAccountPriceTableBinding":
{}}' http://localhost:8080/zstack/v1/billings/
price-tables/ca0f8310310e351f8590e4d9f03106bc/
accounts/082289755ebe363daa52eb2aa10cbb01
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
accountUuid	String	url	The account UUID.		3.7.2
tableUuid	String	url	The price table UUID.		3.7.2
resourceUuid	String	body (contained in the changeAccountPriceTableBinding structure)	Optional.		3.7.2
tagUuids	List	body (contained in the changeAccountPriceTableBinding structure)	Optional. The tag UUID list.		3.7.2
systemTags	List	body	Optional. The system tags.		3.7.2
userTags	List	body	Optional. The user tags.		3.7.2

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "5e642eb0820b312086f0b084d656c0cf"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.2
inventory	PriceTableInventory	See inventory .	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.2
description	String	The brief description of the error.	3.7.2
details	String	The details about the error.	3.7.2
elaboration	String	The reserved field. Default value: null.	3.7.2
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.2

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.7.2
name	String	The name of the price table.	3.7.2
description	String	The detailed description of the price table.	3.7.2
createDate	Timestamp	The creation date.	3.7.2
lastOpDate	Timestamp	The last operation date.	3.7.2

SDK Sample

Java SDK

```
ChangeAccountPriceTableBindingAction action = new ChangeAccountPriceTableBindingAction();
action.accountUuid = "082289755ebe363daa52eb2aa10cbb01";
action.tableUuid = "ca0f8310310e351f8590e4d9f03106bc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeAccountPriceTableBindingAction.Result res = action.call();
```

Python SDK

```
ChangeAccountPriceTableBindingAction action = ChangeAccountPriceTableBindingAction()
action.accountUuid = "082289755ebe363daa52eb2aa10cbb01"
action.tableUuid = "ca0f8310310e351f8590e4d9f03106bc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeAccountPriceTableBindingAction.Result res = action.call()
```

7.2.14 GetAccountPriceTableRef**API Request**

URLs

```
GET zstack/v1/billings/price-tables/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/billings/price-tables/refs?
tableUuid=691136f22ea733b8ae6e90dfe42bf38c
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
tableUuid	String	query	Optional. The price table UUID.		3.7.2
accountUuid	String	query	Optional. The account UUID.		3.7.2
systemTags	List	query	Optional. The system tags.		3.7.2
userTags	List	query	Optional. The user tags.		3.7.2

API Response

Sample Response

```
{
  "accountUuids": [
    "67fcb4c5fa0c36adba411d7258d4557e",
    "7a9c5437f5393002a8c8c44bd218e41a",
    "b11fc0267dbf3c5486accb86c79aca01"
  ]
}
```

Name	Type	Description	Starting Version
accountUuids	List	The account UUID list.	3.7.2
tableUuid	String	The price table UUID.	3.7.2
success	boolean		3.7.2
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.2
error	ErrorCode	See error .	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.7.2
description	String	The brief description of the error.	3.7.2
details	String	The details about the error.	3.7.2
elaboration	String	The reserved field. Default value: null.	3.7.2
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.7.2
description	String	The brief description of the error.	3.7.2
details	String	The details about the error.	3.7.2
elaboration	String	The reserved field. Default value: null.	3.7.2

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.2

SDK Sample

Java SDK

```
GetAccountPriceTableRefAction action = new GetAccountPriceTableRefAction();
action.tableUuid = "691136f22ea733b8ae6e90dfe42bf38c";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetAccountPriceTableRefAction.Result res = action.call();
```

Python SDK

```
GetAccountPriceTableRefAction action = GetAccountPriceTableRefAction()
action.tableUuid = "691136f22ea733b8ae6e90dfe42bf38c"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetAccountPriceTableRefAction.Result res = action.call()
```

7.2.15 QueryAccountPriceTableRef

API Request

URLs

```
GET zstack/v1/accounts/price-tables/refs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/accounts/price-tables/refs?
q=uuid=491c8b047d073a42ab44213f726fddb5f
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAccountPriceTableRef**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "accountUuid": "3dd9565ef61137c2a8615c26da6ddd4c",
      "tableUuid": "b0c83f78e0323aea8969e5b879ffbe5f",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.7.2
inventories	List	See inventories .	3.7.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.7.2
description	String	The brief description of the error.	3.7.2
details	String	The details about the error.	3.7.2
elaboration	String	The reserved field. Default value: null.	3.7.2
opaque	LinkedHashMap	The reserved field. Default value: null.	3.7.2

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.7.2

#inventories

Name	Type	Description	Starting Version
accountUuid	String	The account UUID.	3.7.2
tableUuid	String	The price table UUID.	3.7.2
createDate	Timestamp	The creation date.	3.7.2
lastOpDate	Timestamp	The last operation date.	3.7.2

SDK Sample

SDK Sample

Java SDK

```
QueryAccountPriceTableRefAction action = new QueryAccountPriceTableRefAction();
action.conditions = asList("uuid=36ee3e78b96a32179ffeeffc28f4c6cf0");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAccountPriceTableRefAction.Result res = action.call();
```

Python SDK

```
QueryAccountPriceTableRefAction action = QueryAccountPriceTableRefAction()
action.conditions = ["uuid=c5a7e0e081583016a4a316245ff6d525"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryAccountPriceTableRefAction.Result res = action.call()
```

7.2.16 GenerateAccountBilling

API Request

URLs

```
PUT zstack/v1/billings/accounts/{accountUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "generateAccountBilling": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"generateAccountBilling":{}}'
http://localhost:8080/zstack/v1/billings/
accounts/54caddf06e1e3b7c995df5e99d8ca9d9/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
accountUuid	String	url	The account UUID.		3.7.2
systemTags	List	body	Optional. The system tags.		3.7.2
userTags	List	body	Optional. The user tags.		3.7.2

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
GenerateAccountBillingAction action = new GenerateAccountBillingAction
();
action.accountUuid = "54caddf06e1e3b7c995df5e99d8ca9d9";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GenerateAccountBillingAction.Result res = action.call();
```

Python SDK

```
GenerateAccountBillingAction action = GenerateAccountBillingAction()
action.accountUuid = "54caddf06e1e3b7c995df5e99d8ca9d9"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GenerateAccountBillingAction.Result res = action.call()
```

7.3 Access Control

7.3.1 Console Service Operations

7.3.1.1 RequestConsoleAccess

API Request

URLs

```
POST zstack/v1/consoles
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "vmInstanceUuid": "b95acae48c804003ac3820751b58a50d"
  },
}
```

```
"systemTags": [],
"userTags": []
}
```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"vmInstanceUuid": "e0442db541833083bd7e411a4d94d969"}}' \
http://localhost:8080/zstack/v1/consols
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
vmInstanceUuid	String	body (contained in the params structure)	The VM instance UUID		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response**Sample Response**

```
{
  "inventory": {
    "scheme": "http",
    "hostname": "127.0.0.1",
    "port": 4900.0,
    "token": "d96caf24fae54c76b7652f548a258261"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For	0.6

Name	Type	Description	Starting Version
		more information, see error .	
inventory	ConsoleInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
scheme	String	The type of the access protocol.	0.6
hostname	String	The hostname.	0.6
port	int	The port.	0.6
token	String	The token.	0.6

SDK Sample

Java SDK

```
RequestConsoleAccessAction action = new RequestConsoleAccessAction();
action.vmInstanceUuid = "c8925478e1f840caa1f3919affa19155";
action.sessionId = "f896abb919754292aa8d2f286596142c";
RequestConsoleAccessAction.Result res = action.call();
```

Python SDK

```
RequestConsoleAccessAction action = RequestConsoleAccessAction()
action.vmInstanceUuid = "f37c825f87444941bf16261f63c7dbb7"
action.sessionId = "331a21749df940e4b447e9103518890d"
RequestConsoleAccessAction.Result res = action.call()
```

7.3.1.2 QueryConsoleProxyAgent

API Request

URLs

```
GET zstack/v1/consoles/agents
GET zstack/v1/consoles/agents/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 350b72c2d3f24641a767acbcec744b19" \
-X GET http://localhost:8080/zstack/v1/consoles/agents?
q=uuid=745b7c17cd224025b3adfef4ae61b3d2
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth bb08e240616b482984c397e4517a021c" \
-X GET http://localhost:8080/zstack/v1/consoles/
agents/8a3cc2be7e20420db29925e381c598bc
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryConsoleProxyAgent**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
```

```

    "uuid": "c77bbc7d3364449e9543d0776a6087de",
    "managementIp": "127.0.0.1",
    "type": "ManagementServerConsoleProxy",
    "state": "Connected"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
description	String	The detailed description of the resource.	0.6
managementIp	String	The IP address of the management node.	0.6
type	String	The type.	0.6
status	String	The status, including Connected and Disconnected.	0.6
state	String	The state, including Enabled and Disabled.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryConsoleProxyAgentAction action = new QueryConsoleProxyAgentAction();
action.conditions = asList("uuid=dfbe49d87cb94d93b69354fa1270012b");
action.sessionId = "e2300cd4f74a457e87f13842aeb8fdef";
QueryConsoleProxyAgentAction.Result res = action.call();
```

Python SDK

```
QueryConsoleProxyAgentAction action = QueryConsoleProxyAgentAction()
action.conditions = ["uuid=1e47046946f849ee871de20a2b045750"]
action.sessionId = "1655d7f2e56d4710824cd1082bd5cc94"
```

```
QueryConsoleProxyAgentAction.Result res = action.call()
```

7.3.1.3 ReconnectConsoleProxyAgent

API Request

URLs

```
PUT zstack/v1/consoles/agents
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reconnectConsoleProxyAgent": {
    "agentUuids": [
      "ce9f63639c6947fc9de43014a9c42af6",
      "5cf200f8fa6640278ab3751a9e40a122",
      "896f44bd3a2544e3b49a30dbe41303da"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"reconnectConsoleProxyAgent":{"agentUuids":
["9a00b78598253e68914541e6760ddeaa","c18fbd323fbd3902961e4105ec9364d0","96efd3296
\
http://localhost:8080/zstack/v1/consoles/agents
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
agentUuids	List	body (contained in the params structure)	Optional. The console proxy UUIDs.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "976e8d54d42841da85eb697f3e8534b6": true,
    "ac4b5e3b69e5499eba381082199b5d42": true
  }
}
```

Name	Type	Description	Starting Version
inventory	Map	The console proxy inventory.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
ReconnectConsoleProxyAgentAction action = new ReconnectConsoleProxyAgentAction();
action.agentUuids = asList("9b1d2cae4e75418ba8ca00a7f8d61eee", "b3c9068b99664b65851bc29e39c3e336", "89ea316d7f114203bb352d22b1f878e2");
action.sessionId = "607aa9478e0f452ab3fe43f0bb44771f";
ReconnectConsoleProxyAgentAction.Result res = action.call();
```

Python SDK

```
ReconnectConsoleProxyAgentAction action = ReconnectConsoleProxyAgentAction()
action.agentUuids = [6b5d95576b444661a23454913abce886, 64326c502c4042b196d9602737733d64, 1cc5a9dbb4284fbe850e387788b365ec]
action.sessionId = "dc7db7612de24cb7a3d91d1d08b03162"
ReconnectConsoleProxyAgentAction.Result res = action.call()
```

7.3.1.4 UpdateConsoleProxyAgent

API Request

URLs

```
PUT zstack/v1/consoles/agents/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateConsoleProxyAgent": {
    "consoleProxyOverriddenIp": "127.0.0.1"
  }
}
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateConsoleProxyAgent":
{"consoleProxyOverriddenIp":"127.0.0.1"}}' \
http://localhost:8080/zstack/v1/console/agents/
f616460f24cd330180db4188c3a905b6/actions

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
consoleProxyOverriddenIp	String	body (contained in the updateConsoleProxyAgent structure)	The IP address of the new console proxy.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response**Sample Response**

```

{
  "inventory": {}
}

```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	ConsoleProxyAgentInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6

Name	Type	Description	Starting Version
description	String	The detailed description of the resource.	0.6
managementIp	String	The IP address of the management node.	0.6
type	String	The type.	0.6
status	String	The status, including Connected and Disconnected.	0.6
state	String	The state, including Enabled and Disabled.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateConsoleProxyAgentAction action = new UpdateConsoleProxyAgentAction();
action.uuid = "f616460f24cd330180db4188c3a905b6";
action.consoleProxyOverriddenIp = "127.0.0.1";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateConsoleProxyAgentAction.Result res = action.call();
```

Python SDK

```
UpdateConsoleProxyAgentAction action = UpdateConsoleProxyAgentAction()
action.uuid = "f616460f24cd330180db4188c3a905b6"
action.consoleProxyOverriddenIp = "127.0.0.1"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateConsoleProxyAgentAction.Result res = action.call()
```

7.3.2 AccessKey Operations

7.3.2.1 CreateAccessKey

API Request

URLs

```
POST zstack/v1/accesskeys
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "accountUuid": "db517023502d34ef9309e49674af88d0",
    "userUuid": "019f0d7b414b31d98a8de6cab4a8b999"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"accountUuid":"db517023502d34ef9309e49674af88d0","userUuid":"019f0d7b414b31d98a8
http://localhost:8080/zstack/v1/accesskeys
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
accountUuid	String	body (contained in the params structure)	The account UUID.		3.2.0

Name	Type	Location	Description	Optional Value	Starting Version
userUuid	String	body (contained in the params structure)	The user UUID.		3.2.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.2.0
AccessKeyId	String	body (contained in the params structure)	Optional. The generated AccessKey ID.		3.7.0
AccessKeySecret	String	body (contained in the params structure)	Optional. The generated AccessKey Secret.		3.7.0
resourceUuid	String	body (contained in the params structure)	Optional.		3.2.0
systemTags	List	body	Optional.		3.2.0
userTags	List	body	Optional.		3.2.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "01f82a92a3f83136b3a5fa13b0f1dde6",
    "accountUuid": "bc81e5aad7363ebaa904ee81edbfdd1f",
    "userUuid": "20e90349268736d7950284d122f64213",
    "AccessKeyId": "1234567890abcdedfhij",
    "AccessKeySecret": "1234567890abcdedfhij1234567890abcdedfhij",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation	3.2.0

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
inventory	AccessKeyInventory	See inventory .	3.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.2.0
description	String	The brief description of the error.	3.2.0
details	String	The details about the error.	3.2.0
elaboration	String	The reserved field. Default value: null.	3.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.2.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.2.0
description	String	The detailed description of the resource.	3.2.0
accountUuid	String	The account UUID.	3.2.0
userUuid	String	The user UUID.	3.2.0

Name	Type	Description	Starting Version
AccessKeyId	String		3.2.0
AccessKeySecret	String		3.2.0
createDate	Timestamp	The creation date.	3.2.0
lastOpDate	Timestamp	The last operation date.	3.2.0
state	AccessKeyState	See state .	3.2.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	3.2.0
ordinal	int		3.2.0

SDK Sample

Java SDK

```
CreateAccessKeyAction action = new CreateAccessKeyAction();
action.accountUuid = "db517023502d34ef9309e49674af88d0";
action.userUuid = "019f0d7b414b31d98a8de6cab4a8b999";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateAccessKeyAction.Result res = action.call();
```

Python SDK

```
CreateAccessKeyAction action = CreateAccessKeyAction()
action.accountUuid = "db517023502d34ef9309e49674af88d0"
action.userUuid = "019f0d7b414b31d98a8de6cab4a8b999"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
CreateAccessKeyAction.Result res = action.call()
```

7.3.2.2 DeleteAccessKey

API Request

URLs

```
DELETE zstack/v1/accesskeys/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/
accesskeys/7fcbb0096e3d3e2a8dd4f83610d3dac9?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The AccessKey UUID.		3.2.0
deleteMode	String	url	Optional. The delete mode.		3.2.0
systemTags	List	body	Optional. The system tags.		3.2.0
userTags	List	body	Optional. The user tags.		3.2.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteAccessKeyAction action = new DeleteAccessKeyAction();
action.uuid = "7fcbb0096e3d3e2a8dd4f83610d3dac9";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAccessKeyAction.Result res = action.call();
```

Python SDK

```
DeleteAccessKeyAction action = DeleteAccessKeyAction()
action.uuid = "7fcbb0096e3d3e2a8dd4f83610d3dac9"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteAccessKeyAction.Result res = action.call()
```

7.3.2.3 QueryAccessKey

API Request

URLs

```
GET zstack/v1/accesskeys
GET zstack/v1/accesskeys/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/accesskeys?
q=uuid=fc008e53779632989bf9393ecf074e25
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/accesskeys/
f99c1aea4a6e35e4a88c6abfe11cce8d
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAccessKey**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "12be3dd32afa3cf2afa4c06037f218b7",
      "accountUuid": "324ecf74dd5c3b9a9f2b75edfdbd858f",
      "userUuid": "49c0bc4cfa6d3a67930fe4a4cc32248c",
      "AccessKeyID": "1234567890abcdedfhij",
      "AccessKeySecret": "1234567890abcdedfhij1234567890abcdedfhij",
      "state": "Enabled"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.2.0
inventories	List	See inventories .	3.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.2.0
description	String	The brief description of the error.	3.2.0
details	String	The details about the error.	3.2.0
elaboration	String	The reserved field. Default value: null.	3.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.2.0
cause	ErrorCode	The root error, which is the associated root	3.2.0

Name	Type	Description	Starting Version
		cause of the current error. If no root error exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.2.0
description	String	The detailed description of the resource.	3.2.0
accountUuid	String	The account UUID.	3.2.0
userUuid	String	The user UUID.	3.2.0
AccessKeyID	String		3.2.0
AccessKeySecret	String		3.2.0
createDate	Timestamp	The creation date.	3.2.0
lastOpDate	Timestamp	The last operation date.	3.2.0
state	AccessKeyState	See state .	3.2.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	3.2.0
ordinal	int		3.2.0

SDK Sample

Java SDK

```
QueryAccessKeyAction action = new QueryAccessKeyAction();
action.conditions = asList("uuid=f0c530f17978349faa8c4736accd0375");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAccessKeyAction.Result res = action.call();
```

Python SDK

```
QueryAccessKeyAction action = QueryAccessKeyAction()
action.conditions = ["uuid=ee3c98b8528e3fe2aa9d817cd48b1358"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryAccessKeyAction.Result res = action.call()
```

7.3.2.4 ChangeAccessKeyState

API Request

URLs

```
PUT zstack/v1/accesskeys/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "changeAccessKeyState": {
    "stateEvent": "disable"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"changeAccessKeyState":{"stateEvent":"disable"}}' http://
localhost:8080/zstack/v1/accesskeys/2c9c06fee2513d4b81f1af281ab6bb7b/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The AccessKey UUID.		3.2.0
stateEvent	String	body (contained in the changeAcce	Enables or disables the AccessKey.	- enable - disable	3.2.0

Name	Type	Location	Description	Optional Value	Starting Version
		ssKeyState structure)			
systemTags	List	body	Optional. The system tags.		3.2.0
userTags	List	body	Optional. The user tags.		3.2.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "defe79b1a43f35818dc6d3959b571773",
    "accountUuid": "d0c06c8d19f439b1b8f481dbdf3e3a3c",
    "userUuid": "b622d5d01ef63237878023e93ade5003",
    "AccessKeyID": "1234567890abcdedfhij",
    "AccessKeySecret": "1234567890abcdedfhij1234567890abcdedfhij",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.2.0
inventory	AccessKeyInventory	See inventory .	3.2.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.2.0
description	String	The brief description of the error.	3.2.0

Name	Type	Description	Starting Version
details	String	The details about the error.	3.2.0
elaboration	String	The reserved field. Default value: null.	3.2.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.2.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.2.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.2.0
description	String	The detailed description of the resource.	3.2.0
accountUuid	String	The account UUID.	3.2.0
userUuid	String	The user UUID.	3.2.0
AccessKeyId	String		3.2.0
AccessKeySecret	String		3.2.0
createDate	Timestamp	The creation date.	3.2.0
lastOpDate	Timestamp	The last operation date.	3.2.0
state	AccessKeyState	See state .	3.2.0

#state

Name	Type	Description	Starting Version
name	String	The resource name.	3.2.0
ordinal	int		3.2.0

SDK Sample

Java SDK

```
ChangeAccessKeyStateAction action = new ChangeAccessKeyStateAction();
action.uuid = "2c9c06fee2513d4b81f1af281ab6bb7b";
action.stateEvent = "disable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ChangeAccessKeyStateAction.Result res = action.call();
```

Python SDK

```
ChangeAccessKeyStateAction action = ChangeAccessKeyStateAction()
action.uuid = "2c9c06fee2513d4b81f1af281ab6bb7b"
action.stateEvent = "disable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ChangeAccessKeyStateAction.Result res = action.call()
```

7.3.3 IP Blacklist/Whitelist Operations

7.3.3.1 AddAccessControlRule

API Request

URLs

```
POST zstack/v1/login-control/access-control/rules
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "rule1",
    "description": "this is a rule",
    "rule": "172.20.1.1,172.20.1.2",
    "controlStrategy": "ACCEPT"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"rule1","description":"this is a
rule","rule":"172.20.1.1,172.20.1.2","controlStrategy":"ACCEPT"}}'
http://localhost:8080/zstack/v1/login-control/access-control/rules
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource UUID.		3.5.1
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		3.5.1
rule	String	body (contained in the params structure)			3.5.1
controlStrategy	String	body (contained in the params structure)			3.5.1
resourceUuid	String	body (contained in the params structure)	Optional.		3.5.1
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		3.5.1
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
AddAccessControlRuleAction action = new AddAccessControlRuleAction();
action.name = "rule1";
action.description = "this is a rule";
action.rule = "172.20.1.1,172.20.1.2";
action.controlStrategy = "ACCEPT";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddAccessControlRuleAction.Result res = action.call();
```

Python SDK

```
AddAccessControlRuleAction action = AddAccessControlRuleAction()
action.name = "rule1"
action.description = "this is a rule"
action.rule = "172.20.1.1,172.20.1.2"
action.controlStrategy = "ACCEPT"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddAccessControlRuleAction.Result res = action.call()
```

7.3.3.2 DeleteAccessControlRule

API Request

URLs

```
DELETE zstack/v1/login-control/access-control/rules/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X DELETE http://localhost:8080/zstack/v1/login-control/access-control/rules/04baa07ba917360394ec649e26b93593?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.1
deleteMode	String	body	Optional. The delete mode.		3.5.1
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteAccessControlRuleAction action = new DeleteAccessControlRuleAction();
action.uuid = "04baa07ba917360394ec649e26b93593";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteAccessControlRuleAction.Result res = action.call();
```

Python SDK

```
DeleteAccessControlRuleAction action = DeleteAccessControlRuleAction()
action.uuid = "04baa07ba917360394ec649e26b93593"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteAccessControlRuleAction.Result res = action.call()
```

7.3.3.3 UpdateAccessControlRule

API Request

URLs

```
PUT zstack/v1/login-control/access-control/rules/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateAccessControlRule": {
    "name": "rule1",
    "description": "this is a rule"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateAccessControlRule":
{"name":"rule1","description":"this is a rule"}}' http://
localhost:8080/zstack/v1/login-control/access-control/
rules/6bc3181222854438ac8af53f2b57ecf7/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.5.1
name	String	body (contained in the updateAcce	Optional. The resource name.		3.5.1

Name	Type	Location	Description	Optional Value	Starting Version
		ssControlRule structure)			
description	String	body (contained in the updateAccessControlRule structure)	Optional. The detailed description of the resource.		3.5.1
systemTags	List	body	Optional. The system tags.		3.5.1
userTags	List	body	Optional. The user tags.		3.5.1

API Response

Sample Response

```
{
  "inventory": {
    "name": "rule",
    "description": "this is rule description",
    "rule": "172.20.1.1",
    "strategy": "ACCEPT",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventory	AccessControlRuleInventory	See inventory .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
name	String	The resource name.	3.5.1
description	String	The detailed description of the resource.	3.5.1
rule	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1
strategy	ControlStrategy	See strategy .	3.5.1

#strategy

Name	Type	Description	Starting Version
ACCEPT	ControlStrategy		3.5.1
REJECT	ControlStrategy		3.5.1

SDK Sample

Java SDK

```
UpdateAccessControlRuleAction action = new UpdateAccessControlRuleAction();
action.uuid = "c3fb6843d7b84791bbffb762e35b3065";
action.name = "rule1";
action.description = "this is a rule";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateAccessControlRuleAction.Result res = action.call();
```

Python SDK

```
UpdateAccessControlRuleAction action = UpdateAccessControlRuleAction()
action.uuid = "4c30b1ea5adf450ebca75f8b8606b964"
action.name = "rule1"
action.description = "this is a rule"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateAccessControlRuleAction.Result res = action.call()
```

7.3.3.4 QueryAccessControlRule

API Request

URLs

```
GET zstack/v1/login-control/access-control/rules
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/login-control/access-control/rules?q=uuid=4f41ad1c52ac3ba690282ede3d1ebb2a
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryAccessControlRule**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "rule": "192.168.10.0/24"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.5.1
inventories	List	See inventories .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	3.5.1

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.5.1
name	String	The resource name.	3.5.1
description	String	The detailed description of the resource.	3.5.1
rule	String		3.5.1
createDate	Timestamp	The creation date.	3.5.1
lastOpDate	Timestamp	The last operation date.	3.5.1
strategy	ControlStrategy	See strategy .	3.5.1

#strategy

Name	Type	Description	Starting Version
ACCEPT	ControlStrategy		3.5.1
REJECT	ControlStrategy		3.5.1

SDK Sample

Java SDK

```
QueryAccessControlRuleAction action = new QueryAccessControlRuleAction();
action.conditions = asList("uuid=b4cae0f6a9ac3cd686ba36c81291d197");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryAccessControlRuleAction.Result res = action.call();
```

Python SDK

```
QueryAccessControlRuleAction action = QueryAccessControlRuleAction()
action.conditions = ["uuid=4b3f7d2f1fda3f1d8089b4d037364bf9"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryAccessControlRuleAction.Result res = action.call()
```

7.3.3.5 GetLoginCaptcha

API Request

URLs

```
GET zstack/v1/login/control/captcha
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" -X
GET http://localhost:8080/zstack/v1/login/control/captcha?
resourceName=admin&loginType=Test
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
resourceName	String	query			3.5.1
loginType	String	query			3.5.1
captchaUuid	String	query	Optional.		3.5.1
systemTags	List	query	Optional. The system tags.		3.5.1
userTags	List	query	Optional. The user tags.		3.5.1

API Response

Sample Response

```
{
  "captchaUuid": "64dd651f9c0043c28490b3a4d76d394e",
  "captcha": "test"
}
```

Name	Type	Description	Starting Version
captchaUuid	String		3.5.1
captcha	String		3.5.1
success	boolean		3.5.1
error	ErrorCode	The error code. If not null, the operation	3.5.1

Name	Type	Description	Starting Version
		fails, or vice versa. For more information, see error .	
error	ErrorCode	See error .	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.5.1
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.5.1

Name	Type	Description	Starting Version
description	String	The brief description of the error.	3.5.1
details	String	The details about the error.	3.5.1
elaboration	String	The reserved field. Default value: null.	3.5.1
opaque	LinkedHashMap	The reserved field. Default value: null.	3.5.1
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.5.1

SDK Sample

Java SDK

```
GetLoginCaptchaAction action = new GetLoginCaptchaAction();
action.resourceName = "admin";
action.loginType = "Test";
GetLoginCaptchaAction.Result res = action.call();
```

Python SDK

```
GetLoginCaptchaAction action = GetLoginCaptchaAction()
action.resourceName = "admin"
action.loginType = "Test"
GetLoginCaptchaAction.Result res = action.call()
```

8 Settings

8.1 Log Server Operations

8.1.1 AddLogServer

API Request

URLs

```
POST zstack/v1/log/servers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "log-server",
    "description": "log server",
    "category": "ManagementNodeLog",
    "type": "Log4j2",
    "level": "ALL",
    "configuration": "{\n\"appenderType\": \"Syslog\", \n\"configuration\": {\n\"hostname\": \"192.168.0.11\", \n\"port\": \"514\", \n\"protocol\": \"UDP\", \n\"facility\": \"LOCAL5\" \n} \n}"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"log-server","description":"log server","category":"ManagementNodeLog","type":"Log4j2","level":"ALL","configuration":{"appenderType": "Syslog", "configuration": {"hostname": "192.168.0.11", "port": "514", "protocol": "UDP", "facility": "LOCAL5" }}}}' \
http://localhost:8080/zstack/v1/log/servers
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (container in the params structure)	The resource name.		5.3.28
description	String	body (container in the params structure)	Optional. The resource description.		5.3.28
category	String	body (container in the params structure)	The log category.	• ManagementNodeLog • PlatformOperationLog	5.3.28
type	String	body (container in the params structure)	The log type.	• Log4j2 • FluentBit	5.3.28
level (可选)	String	body (container in the params structure)	Optional. The log severity level.	• OFF • FATAL • ERROR • WARN • INFO • DEBUG • TRACE • ALL	5.3.28
configuration	String	body (container in the params structure)	The log configurations.		5.3.28
resourceUuid	String	body (container in the params structure)	Optional. The resource UUID.		5.3.28
tagUuids	List	body (container in the params structure)	Optional. The tag UUID list.		5.3.28

Name	Type	Location	Description	Valid Values	Starting Version
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28

API Response

Sample Response

```
{
  "inventory": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.28
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28
inventory	LogServerInventory	See inventory	5.3.28

#error

名字	类型	描述	起始版本
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	5.3.28
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28

名字	类型	描述	起始版本
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.28

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
configuration	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time	5.3.28
category	LogCategory	See category	5.3.28
type	LogType	See type	5.3.28
level	LogLevel	See level	5.3.28

#category

Name	Type	Description	Starting Version
ManagementNodeLog	LogCategory		5.3.28
PlatformOperationLog	LogCategory		5.3.28

#type

Name	Type	Description	Starting Version
Log4j2	LogType		5.3.28
FluentBit	LogType		5.3.28

#level

Name	Type	Description	Starting Version
OFF	LogLevel		5.3.28
FATAL	LogLevel		5.3.28
ERROR	LogLevel		5.3.28
WARN	LogLevel		5.3.28
INFO	LogLevel		5.3.28
DEBUG	LogLevel		5.3.28
TRACE	LogLevel		5.3.28
ALL	LogLevel		5.3.28

SDK示例

Java SDK

```
AddLogServerAction action = new AddLogServerAction();
action.name = "log-server";
action.description = "log server";
action.category = "ManagementNodeLog";
action.type = "Log4j2";
action.level = "ALL";
action.configuration = "{
  \"appenderType\": \"Syslog\",
  \"configuration\": {
    \"hostname\": \"192.168.0.11\",
    \"port\": \"514\",
    \"protocol\": \"UDP\",
    \"facility\": \"LOCAL5\"
  }
}";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AddLogServerAction.Result res = action.call();
```

Python SDK

```
AddLogServerAction action = AddLogServerAction()
action.name = "log-server"
action.description = "log server"
action.category = "ManagementNodeLog"
action.type = "Log4j2"
action.level = "ALL"
action.configuration = "{
  \"appenderType\": \"Syslog\",
  \"configuration\": {
    \"hostname\": \"192.168.0.11\",
    \"port\": \"514\",
    \"protocol\": \"UDP\",
    \"facility\": \"LOCAL5\"
  }
}
```

```
}
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AddLogServerAction.Result res = action.call()
```

8.1.2 DeleteLogSever

API Request

URLs

```
DELETE zstack/v1/log/servers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/log/servers
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	body	The resource UUID.		5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteLogServerAction action = new DeleteLogServerAction();
action.uuid = "cdc213d6ba25367ea6c4d201491d900c";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteLogServerAction.Result res = action.call();
```

Python SDK

```
DeleteLogServerAction action = DeleteLogServerAction()
action.uuid = "cdc213d6ba25367ea6c4d201491d900c"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteLogServerAction.Result res = action.call()
```

8.1.3 QueryLogServer

API Request

URLs

```
GET zstack/v1/log/servers
```

```
GET zstack/v1/log/servers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/log/servers?
q=uuid=xxx&q=name=xxx
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/log/
servers/9699713cfb583c70b749adca2c01a77b
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryLdapServer**, and pressing the Tab key.

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QueryLogServerAction action = new QueryLogServerAction();
action.conditions = asList("uuid=xxx","name=xxx");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryLogServerAction.Result res = action.call();
```

Python SDK

```
QueryLogServerAction action = QueryLogServerAction()
action.conditions = ["uuid=xxx","name=xxx"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryLogServerAction.Result res = action.call()
```

8.1.4 UpdateLogServer

API Request

URLs

```
PUT zstack/v1/log/servers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateLogServer": {
    "uuid": "10bf3f837edf37a0be99a84d1edafb6b",
    "name": "example"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateLogServer":
{"uuid":"10bf3f837edf37a0be99a84d1edafb6b","name":"example"}}' \
http://localhost:8080/zstack/v1/log/servers
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	body (container in the updateLogServer structure)	The resource UUID.		5.3.28
name	String	body (container in the updateLogServer structure)	Optional. The resource name.		5.3.28
description	String	body (container in the updateLogServer structure)	Optional. The resource description.		5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
UpdateLogServerAction action = new UpdateLogServerAction();
action.uuid = "10bf3f837edf37a0be99a84d1edafb6b";
action.name = "example";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateLogServerAction.Result res = action.call();
```

Python SDK

```
UpdateLogServerAction action = UpdateLogServerAction()
action.uuid = "10bf3f837edf37a0be99a84d1edafb6b"
action.name = "example"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateLogServerAction.Result res = action.call()
```

8.2 Observability Server Operations

8.2.1 CreateObservabilityServer

API Request

URLs

```
POST zstack/v1/observability-servers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "obs-1",
    "observabilityServerOfferingUuid": "83475c2834f83dd59ccf8741787d800e",
    "description": "desc",
```

```

    "zoneUuid": "0f33fd3eee6a3b61abce2de06cb1dc24",
    "clusterUuid": "8a47ef8b40e33be8880d24f496cceaf6",
    "hostUuid": "b009ff2ecfe334e5b9dae2501af8c612",
    "primaryStorageUuidForRootVolume": "137d4d95aded3f09a133fb9fd61973
49"
  },
  "systemTags": [],
  "userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edebf53ca0678c" \
-X POST -d '{"params":
{"name": "obs-1", "observabilityServerOfferingUuid": "83475c2834f83dd59ccf8741787d80
\
http://localhost:8080/zstack/v1/observability-servers

```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the params structure)	The resource name.		5.3.28
observabilityServerOfferingUuid	String	body (contained in the params structure)			5.3.28
description	String	body (contained in the params structure)	Optional. The resource description.		5.3.28
zoneUuid	String	body (contained in the params structure)	Optional. The zone UUID.		5.3.28
clusterUuid	String	body (contained in	Optional. The cluster UUID.		5.3.28

Name	Type	Location	Description	Valid Values	Starting Version
		the params structure)			
hostUuid	String	body (contained in the params structure)	Optional. The host UUID.		5.3.28
primaryStorageUuidForRootVolume	String	body (contained in the params structure)	Optional.		5.3.28
rootVolumeSystemTags	List	body (contained in the params structure)	Optional.		5.3.28
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		5.3.28
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		5.3.28
systemTags	List	body	Optional. The system tag.		5.3.28
userTags	List	body	Optional. The user tag.		5.3.28

API Response

Sample Response

```
{
  "inventory": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.28

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28
inventory	VmInstanceInventory	See inventory	5.3.28

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.28
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.28

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28

Name	Type	Description	Starting Version
description	String	The resource description.	5.3.28
zoneUuid	String	The zone UUID.	5.3.28
clusterUuid	String	The cluster UUID.	5.3.28
imageUuid	String	The image UUID.	5.3.28
hostUuid	String	The host UUID.	5.3.28
lastHostUuid	String		5.3.28
instanceOfferingUuid	String	The instance offering UUID.	5.3.28
rootVolumeUuid	String	The root volume UUID.	5.3.28
platform	String		5.3.28
architecture	String		5.3.28
defaultL3NetworkUuid	String		5.3.28
type	String		5.3.28
hypervisorType	String		5.3.28
memorySize	Long		5.3.28
reservedMemorySize	Long		5.3.28
cpuNum	Integer		5.3.28
cpuSpeed	Long		5.3.28
allocatorStrategy	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time.	5.3.28
state	String		5.3.28
guestOsType	String		5.3.28
vmNics	List	See vmNics	5.3.28
allVolumes	List	See allVolumes	5.3.28
vmCdRoms	List	See vmCdRoms	5.3.28

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
vmInstanceUuid	String	The VM UUID.	5.3.28
l3NetworkUuid	String	The L3 network UUID.	5.3.28
ip	String		5.3.28
mac	String		5.3.28
hypervisorType	String		5.3.28
netmask	String		5.3.28
gateway	String		5.3.28
metaData	String		5.3.28
ipVersion	Integer		5.3.28
driverType	String		5.3.28
internalName	String		5.3.28
deviceId	Integer		5.3.28
type	String		5.3.28
state	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time .	5.3.28
usedIps	List	See usedIps	5.3.28

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
ipRangeUuid	String	The IP range UUID.	5.3.28
l3NetworkUuid	String	The L3 network UUID.	5.3.28
ipVersion	Integer		5.3.28
ip	String		5.3.28
netmask	String		5.3.28
gateway	String		5.3.28
usedFor	String		5.3.28

Name	Type	Description	Starting Version
ipInLong	long		5.3.28
ipInBinary	byte[]		5.3.28
vmNicUuid	String	The VM NIC UUID.	5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time .	5.3.28

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
primaryStorageUuid	String	The primary storage UUID.	5.3.28
vmInstanceUuid	String	The VM UUID.	5.3.28
diskOfferingUuid	String	The disk offering UUID .	5.3.28
rootImageUuid	String		5.3.28
installPath	String		5.3.28
type	String		5.3.28
format	String		5.3.28
size	Long		5.3.28
actualSize	Long		5.3.28
deviceId	Integer		5.3.28
state	String		5.3.28
status	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time .	5.3.28
isShareable	Boolean		5.3.28

Name	Type	Description	Starting Version
volumeQos	String		5.3.28
lastDetachDate	Timestamp		5.3.28
lastVmInstanceUuid	String		5.3.28
lastAttachDate	Timestamp		5.3.28
protocol	String		5.3.28

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
vmInstanceUuid	String	The VM UUID.	5.3.28
deviceId	Integer		5.3.28
isoUuid	String		5.3.28
isoInstallPath	String		5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
protocol	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time	5.3.28

SDK

Java SDK

```

CreateObservabilityServerAction action = new CreateObservabilityServerAction();
action.name = "obs-1";
action.observabilityServerOfferingUuid = "83475c2834f83dd59ccf8741787d800e";
action.description = "desc";
action.zoneUuid = "0f33fd3eee6a3b61abce2de06cb1dc24";
action.clusterUuid = "8a47ef8b40e33be8880d24f496cceaf6";
action.hostUuid = "b009ff2ecfe334e5b9dae2501af8c612";
action.primaryStorageUuidForRootVolume = "137d4d95aded3f09a133fb9fd6197349";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
CreateObservabilityServerAction.Result res = action.call();
```

Python SDK

```
CreateObservabilityServerAction action = CreateObservabilityServerAction()
action.name = "obs-1"
action.observabilityServerOfferingUuid = "83475c2834f83dd59ccf8741787d800e"
action.description = "desc"
action.zoneUuid = "0f33fd3eee6a3b61abce2de06cb1dc24"
action.clusterUuid = "8a47ef8b40e33be8880d24f496cceaf6"
action.hostUuid = "b009ff2ecfe334e5b9dae2501af8c612"
action.primaryStorageUuidForRootVolume = "137d4d95aded3f09a133fb9fd6197349"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateObservabilityServerAction.Result res = action.call()
```

8.2.2 AttachServiceToObservabilityServer

API Request

URLs

```
POST zstack/v1/observability-server/{observabilityServerUuid}/service
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "serviceType": "loadBalancer",
    "serviceUuid": "50b12612d2b4318193c2e040d98e8f7b"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"serviceType":"loadBalancer","serviceUuid":"50b12612d2b4318193c2e040d98e8f7b"}}' \
```

```
http://localhost:8080/zstack/v1/observability-server/3e38d4c1adb73203b35120914b12ec61/service
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
observabilityServerUuid	String	body (contained in the params structure)			5.3.28
serviceType	String	body (contained in the params structure)		loadBalancer	5.3.28
serviceUuid	String	body (contained in the params structure)			5.3.28
systemTags	List	body	Optional. The system UUID.		5.3.28
userTags	List	body	Optional. The user UUID.		5.3.28

API Response

Sample Response

```
{
  "inventory": {}
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.28
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28
inventory	ObservabilityServerVmInventory	See inventory	5.3.28

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.28
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.28

#inventory

Name	Type	Description	Starting Version
publicNetworkUuid	String		5.3.28
applianceVmType	String		5.3.28
managementNetworkUuid	String		5.3.28
defaultRouteL3NetworkUuid	String		5.3.28
status	String		5.3.28
agentPort	Integer		5.3.28
haStatus	String		5.3.28
uuid	String	The resource UUID.	5.3.28

Name	Type	Description	Starting Version
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
zoneUuid	String	The zone UUID.	5.3.28
clusterUuid	String	The cluster UUID.	5.3.28
imageUuid	String	The image UUID.	5.3.28
hostUuid	String	The host UUID.	5.3.28
lastHostUuid	String		5.3.28
instanceOfferingUuid	String	The instance offering UUID.	5.3.28
rootVolumeUuid	String	The root volume UUID.	5.3.28
platform	String		5.3.28
architecture	String		5.3.28
defaultL3NetworkUuid	String		5.3.28
type	String		5.3.28
hypervisorType	String		5.3.28
memorySize	Long		5.3.28
reservedMemorySize	Long		5.3.28
cpuNum	Integer		5.3.28
cpuSpeed	Long		5.3.28
allocatorStrategy	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time.	5.3.28
state	String		5.3.28
guestOsType	String		5.3.28
vmNics	List	See vmNics	5.3.28
allVolumes	List	See allVolumes	5.3.28
vmCdRoms	List	See vmCdRoms	5.3.28

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
vmInstanceUuid	String	The VM UUID.	5.3.28
l3NetworkUuid	String	The L3 network UUID.	5.3.28
ip	String		5.3.28
mac	String		5.3.28
hypervisorType	String		5.3.28
netmask	String		5.3.28
gateway	String		5.3.28
metaData	String		5.3.28
ipVersion	Integer		5.3.28
driverType	String		5.3.28
internalName	String		5.3.28
deviceId	Integer		5.3.28
type	String		5.3.28
state	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time .	5.3.28
usedIps	List	See usedIps	5.3.28

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
ipRangeUuid	String	The IP range UUID.	5.3.28
l3NetworkUuid	String	The L3 network UUID.	5.3.28
ipVersion	Integer		5.3.28
ip	String		5.3.28
netmask	String		5.3.28
gateway	String		5.3.28

Name	Type	Description	Starting Version
usedFor	String		5.3.28
ipInLong	long		5.3.28
ipInBinary	byte[]		5.3.28
vmNicUuid	String	The VM NIC UUID.	5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time	5.3.28

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
primaryStorageUuid	String	The primary storage UUID.	5.3.28
vmInstanceUuid	String	The VM UUID.	5.3.28
diskOfferingUuid	String	The disk offering UUID	5.3.28
rootImageUuid	String		5.3.28
installPath	String		5.3.28
type	String		5.3.28
format	String		5.3.28
size	Long		5.3.28
actualSize	Long		5.3.28
deviceId	Integer		5.3.28
state	String		5.3.28
status	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time	5.3.28

Name	Type	Description	Starting Version
isShareable	Boolean		5.3.28
volumeQos	String		5.3.28
lastDetachDate	Timestamp		5.3.28
lastVmInstanceUuid	String		5.3.28
lastAttachDate	Timestamp		5.3.28
protocol	String		5.3.28

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
vmInstanceUuid	String	The VM UUID.	5.3.28
deviceId	Integer		5.3.28
isoUuid	String		5.3.28
isoInstallPath	String		5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
protocol	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time.	5.3.28

SDK

Java SDK

```
AttachServiceToObservabilityServerAction action = new AttachServiceToObservabilityServerAction();
action.observabilityServerUuid = "3e38d4c1adb73203b35120914b12ec61";
action.serviceType = "loadBalancer";
action.serviceUuid = "50b12612d2b4318193c2e040d98e8f7b";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
AttachServiceToObservabilityServerAction.Result res = action.call();
```

Python SDK

```
AttachServiceToObservabilityServerAction action = AttachServiceToObservabilityServerAction()
```

```

action.observabilityServerUuid = "3e38d4c1adb73203b35120914b12ec61"
action.serviceType = "loadBalancer"
action.serviceUuid = "50b12612d2b4318193c2e040d98e8f7b"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
AttachServiceToObservabilityServerAction.Result res = action.call()

```

8.2.3 DetachServiceFromObservabilityServer

API Request

URLs

```
DELETE zstack/v1/observability-server/{observabilityServerUuid}/
service
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/observability-server/
eb4f0a1b78c139d9b291acc85ada69d0/service

```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
observabilityServerUuid	String	body			5.3.28
serviceType	String	body		• loadBalancer	5.3.28
serviceUuid	String	body			5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28

API Response

Sample Response

```

{
  "inventory": {
    "uuid": "43db67751fbe3e7ca1302f06fb7264ae",

```

```

    "name": "ExampleObservabilityServer",
    "description": "This is an example observability server."
  }
}

```

Name	Type	Description	Starting Version
success	boolean		5.3.28
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28
inventory	ObservabilityServerVmInventory	See inventory	5.3.28

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.28
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.28

#inventory

Name	Type	Description	Starting Version
publicNetworkUuid	String		5.3.28
applianceVmType	String		5.3.28
managementNetworkUuid	String		5.3.28
defaultRouteL3NetworkUuid	String		5.3.28
status	String		5.3.28
agentPort	Integer		5.3.28
haStatus	String		5.3.28
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
zoneUuid	String	The zone UUID.	5.3.28
clusterUuid	String	The cluster UUID.	5.3.28
imageUuid	String	The image UUID.	5.3.28
hostUuid	String	The host UUID.	5.3.28
lastHostUuid	String		5.3.28
instanceOfferingUuid	String	The instance offering UUID.	5.3.28
rootVolumeUuid	String	The root volume UUID	5.3.28
platform	String		5.3.28
architecture	String		5.3.28
defaultL3NetworkUuid	String		5.3.28
type	String		5.3.28
hypervisorType	String		5.3.28
memorySize	Long		5.3.28
reservedMemorySize	Long		5.3.28
cpuNum	Integer		5.3.28
cpuSpeed	Long		5.3.28

Name	Type	Description	Starting Version
allocatorStrategy	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time .	5.3.28
state	String		5.3.28
guestOsType	String		5.3.28
vmNics	List	See vmNics	5.3.28
allVolumes	List	See allVolumes	5.3.28
vmCdRoms	List	See vmCdRoms	5.3.28

#vmNics

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
vmInstanceUuid	String	The VM UUID.	5.3.28
l3NetworkUuid	String	The L3 network UUID.	5.3.28
ip	String		5.3.28
mac	String		5.3.28
hypervisorType	String		5.3.28
netmask	String		5.3.28
gateway	String		5.3.28
metaData	String		5.3.28
ipVersion	Integer		5.3.28
driverType	String		5.3.28
internalName	String		5.3.28
deviceId	Integer		5.3.28
type	String		5.3.28
state	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time .	5.3.28

Name	Type	Description	Starting Version
usedIps	List	See usedIps	5.3.28

#usedIps

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
ipRangeUuid	String	The IP range UUID.	5.3.28
l3NetworkUuid	String	The L3 network UUID.	5.3.28
ipVersion	Integer		5.3.28
ip	String		5.3.28
netmask	String		5.3.28
gateway	String		5.3.28
usedFor	String		5.3.28
ipInLong	long		5.3.28
ipInBinary	byte[]		5.3.28
vmNicUuid	String	The VM NIC UUID.	5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time	5.3.28

#allVolumes

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
primaryStorageUuid	String	The primary storage UUID.	5.3.28
vmInstanceUuid	String	The volume UUID.	5.3.28
diskOfferingUuid	String	The disk offering UUID	5.3.28
rootImageUuid	String		5.3.28

Name	Type	Description	Starting Version
installPath	String		5.3.28
type	String		5.3.28
format	String		5.3.28
size	Long		5.3.28
actualSize	Long		5.3.28
deviceId	Integer		5.3.28
state	String		5.3.28
status	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28
lastOpDate	Timestamp	The last operation time	5.3.28
isShareable	Boolean		5.3.28
volumeQos	String		5.3.28
lastDetachDate	Timestamp		5.3.28
lastVmInstanceUuid	String		5.3.28
lastAttachDate	Timestamp		5.3.28
protocol	String		5.3.28

#vmCdRoms

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
vmInstanceUuid	String	The VM UUID.	5.3.28
deviceId	Integer		5.3.28
isoUuid	String		5.3.28
isoInstallPath	String		5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
protocol	String		5.3.28
createDate	Timestamp	The creation time.	5.3.28

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation time	5.3.28

SDK

Java SDK

```
DetachServiceFromObservabilityServerAction action = new DetachServiceFromObservabilityServerAction();
action.observabilityServerUuid = "eb4f0a1b78c139d9b291acc85ada69d0";
action.serviceType = "loadBalancer";
action.serviceUuid = "6dd5dbdc01a6339086958415859fbb60";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DetachServiceFromObservabilityServerAction.Result res = action.call();
```

Python SDK

```
DetachServiceFromObservabilityServerAction action = DetachServiceFromObservabilityServerAction()
action.observabilityServerUuid = "eb4f0a1b78c139d9b291acc85ada69d0"
action.serviceType = "loadBalancer"
action.serviceUuid = "6dd5dbdc01a6339086958415859fbb60"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DetachServiceFromObservabilityServerAction.Result res = action.call()
```

8.2.4 CreateObservabilityServerOffering

API Request

URLs

```
POST zstack/v1/instance-offerings/observability-servers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "zoneUuid": "08c1ec2300e13fc2985d4b42e955f620",
    "managementNetworkUuid": "5c046b968a0e3e33aa08abfe5427b083",
    "imageUuid": "4948cd5ab5e234848bdcf933a45a826f",
    "publicNetworkUuid": "296c48c1b7b43cd0b4094450f63b389d",
    "isDefault": true,
    "name": "ObservabilityServer-Offering",
    "cpuNum": 2,
    "memorySize": 1024,
    "reservedMemorySize": 0,
    "sortKey": 0,
    "type": "ObservabilityServer"
  }
}
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" -H
  "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"zoneUuid":"08c1ec2300e13fc2985d4b42e955f620","managementNetworkUuid":"5c046b968
Offering","cpuNum":2,"memorySize":1024,"reservedMemorySize":0,"sortKey":0,"type":
\
http://localhost:8080/zstack/v1/instance-offerings/observability-
servers

```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
zoneUuid	String	body (contained in the params structure)	The zone UUID.		5.3.28
managementNetworkUuid	String	body (contained in the params structure)			5.3.28
imageUuid	String	body (contained in the params structure)	The image UUID.		5.3.28
publicNetworkUuid	String	body (contained in the params structure)	Optional.		5.3.28
isDefault	Boolean	body (contained in the params structure)	Optional.		5.3.28

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the params structure)	The resource name.		5.3.28
description	String	body (contained in the params structure)	Optional. The resource description.		5.3.28
cpuNum	int	body (contained in the params structure)			5.3.28
memorySize	long	body (contained in the params structure)			5.3.28
reservedMemorySize	long	body (contained in the params structure)	Optional.		5.3.28
allocatorStrategy	String	body (contained in the params structure)	Optional.		5.3.28
sortKey	int	body (contained in the params structure)	Optional.		5.3.28
type	String	body (contained in the params structure)	Optional.		5.3.28
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		5.3.28

Name	Type	Location	Description	Valid Values	Starting Version
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID list.		5.3.28
systemTags	List	body	Optional. The system tag.		5.3.28
userTags (可选)	List	body	Optional. The user tag.		5.3.28

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "3b0af4671cc93f619ef326a3c99d825c",
    "name": "instanceOffering1",
    "cpuNum": 2,
    "cpuSpeed": 1,
    "type": "UserVm",
    "allocatorStrategy": "Mevoco",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM",
    "state": "Enabled"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		5.3.28
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28
inventory	InstanceOfferingInventory	See inventory	5.3.28

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or	5.3.28

Name	Type	Description	Starting Version
		alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	5.3.28

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	5.3.28
name	String	The resource name.	5.3.28
description	String	The resource description.	5.3.28
cpuNum	Integer	The CPU number.	5.3.28
cpuSpeed	Integer	The CPU speed.	5.3.28
memorySize	Long	The memory size.	5.3.28
type	String	The type.	5.3.28
allocatorStrategy	String	The allocation strategy .	5.3.28
sortKey	Integer		5.3.28
createDate	Timestamp	The creation time.	5.3.28

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation time	5.3.28
state	String	The state (Enabled; Disabled).	5.3.28

SDK

Java SDK

```
CreateObservabilityServerOfferingAction action = new CreateObse
rvabilityServerOfferingAction();
action.zoneUuid = "08c1ec2300e13fc2985d4b42e955f620";
action.managementNetworkUuid = "5c046b968a0e3e33aa08abfe5427b083";
action.imageUuid = "4948cd5ab5e234848bdcf933a45a826f";
action.publicNetworkUuid = "296c48c1b7b43cd0b4094450f63b389d";
action.isDefault = true;
action.name = "ObservabilityServer-Offering";
action.cpuNum = 2;
action.memorySize = 1024;
action.reservedMemorySize = 0;
action.sortKey = 0;
action.type = "ObservabilityServer";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateObservabilityServerOfferingAction.Result res = action.call();
```

Python SDK

```
CreateObservabilityServerOfferingAction action = CreateObservabilityS
erverOfferingAction()
action.zoneUuid = "08c1ec2300e13fc2985d4b42e955f620"
action.managementNetworkUuid = "5c046b968a0e3e33aa08abfe5427b083"
action.imageUuid = "4948cd5ab5e234848bdcf933a45a826f"
action.publicNetworkUuid = "296c48c1b7b43cd0b4094450f63b389d"
action.isDefault = true
action.name = "ObservabilityServer-Offering"
action.cpuNum = 2
action.memorySize = 1024
action.reservedMemorySize = 0
action.sortKey = 0
action.type = "ObservabilityServer"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
CreateObservabilityServerOfferingAction.Result res = action.call()
```

8.2.5 GetObservabilityServerServiceData

API Request

URLs

```
POST zstack/v1/observability-server/{observabilityServerUuid}/service-  
data
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{  
  "params": {  
    "serviceType": "loadBalancer",  
    "serviceUuid": "11836e85c4d7391a8d8c54248fd89815",  
    "limit": 10,  
    "startTime": "2024-12-01 17:00:00",  
    "endTime": "2024-12-01 18:00:00",  
    "sortDirection": "asc"  
  },  
  "systemTags": [],  
  "userTags": []  
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X POST -d '{"params":  
{  
  "serviceType": "loadBalancer",  
  "serviceUuid": "11836e85c4d7391a8d8c54248fd89815",  
  "limit": 10,  
  "startTime": "2024-12-01 17:00:00",  
  "endTime": "2024-12-01 18:00:00",  
  "sortDirection": "asc"  
}}' \  
http://localhost:8080/zstack/v1/observability-server/  
f1718b20d8cd3daba51e1b39dcf35299/service-data
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
observabilityServerUuid	String	body (contained in			5.3.28

Name	Type	Location	Description	Valid Values	Starting Version
		the params structure)			
serviceType	String	body (contained in the params structure)		loadBalancer	5.3.28
serviceUuid	String	body (contained in the params structure)			5.3.28
limit	Integer	body (contained in the params structure)	Optional.		5.3.28
startTime	String	body (contained in the params structure)	Optional.		5.3.28
endTime	String	body (contained in the params structure)	Optional.		5.3.28
sortDirection	String	body (contained in the params structure)	Optional.	- asc - desc	5.3.28
labelFilters	Map	body (contained in the params structure)	Optional.		5.3.28
systemTags	List	body	Optional. The system tag.		5.3.28
userTags	List	body	Optional. The user tag.		5.3.28

API Response

Sample Response

```
{
  "inventories": []
}
```

Name	Type	Description	Starting Version
total	Integer		5.3.28
success	boolean		5.3.28
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	5.3.28
inventory	List	See inventories	5.3.28

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	5.3.28
description	String	The brief description of the error.	5.3.28
details	String	The details about the error.	5.3.28
elaboration	String	The reserved field. Default value: null.	5.3.28
opaque	LinkedHashMap	The reserved field. Default value: null.	5.3.28
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	5.3.28

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
job	String		5.3.28
fileName	String		5.3.28

SDK

Java SDK

```
GetObservabilityServerServiceDataAction action = new GetObservabilityServerServiceDataAction();
action.observabilityServerUuid = "f1718b20d8cd3daba51e1b39dcf35299";
action.serviceType = "loadBalancer";
action.serviceUuid = "11836e85c4d7391a8d8c54248fd89815";
action.limit = 10;
action.startTime = "2024-12-01 17:00:00";
action.endTime = "2024-12-01 18:00:00";
action.sortDirection = "asc";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetObservabilityServerServiceDataAction.Result res = action.call();
```

Python SDK

```
GetObservabilityServerServiceDataAction action = GetObservabilityServerServiceDataAction()
action.observabilityServerUuid = "f1718b20d8cd3daba51e1b39dcf35299"
action.serviceType = "loadBalancer"
action.serviceUuid = "11836e85c4d7391a8d8c54248fd89815"
action.limit = 10
action.startTime = "2024-12-01 17:00:00"
action.endTime = "2024-12-01 18:00:00"
action.sortDirection = "asc"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetObservabilityServerServiceDataAction.Result res = action.call()
```

8.3 AD/LDAP/OAuth Operations

8.3.1 AddLdapServer

API Request

URLs

```
POST zstack/v1/ldap/servers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "miao",
    "description": "miao desc",
    "url": "ldap://localhost:1888",
    "base": "dc\u003dexample,dc\u003dcom",
    "username": "",
    "password": "",
    "encryption": "None"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"miao","description":"miao desc","url":"ldap://localhost:1888","base":"dc=example,dc=com","username":"","password":"","encryption": ""},"systemTags": [], "userTags": []}' \
http://localhost:8080/zstack/v1/ldap/servers
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		0.6
description	String	body (contained in the params structure)	The detailed description of the resource.		0.6
url	String	body (contained in the params structure)	The URL of the LDAP server.		0.6
base	String	body (contained in the params structure)	The base DN of the LDAP server.		0.6
username	String	body (contained in the params structure)	The username used to access the LDAP server.		0.6
password	String	body (contained in the params structure)	The password.		0.6
encryption	String	body (contained in the params structure)	The encryption method.	• None • TLS	0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

**Note:**

- When you add an AD/LDAP server in ZStack Cloud, you can synchronize users by adding the **virtualIDSyncConfiguration** option to **SystemTags**.
 - Format of the **virtualIDSyncConfiguration** option: `virtualIDSyncConfiguration::{"rules":[{"name":"name","attribute":"cn","type":"SYSTEM","optional":"true"}, {"name":"fullname","attribute":"cn","type":"CUSTOM","optional":"true"}]}`
 - Example: `virtualIDSyncConfiguration::{"rules":[{"name":"name","attribute":"cn","type":"SYSTEM","optional":"true"}, {"name":"fullname","attribute":"cn","type":"CUSTOM","optional":"true"}]}`
- When you add an AD/LDAP server in ZStack Cloud, you can synchronize organizations by adding the **organizationSyncConfiguration** option to **SystemTags**.
 - Format of the **organizationSyncConfiguration** option: `organizationSyncConfiguration::{"rules":[{"name":"name","attribute":"distinguishedName","type":"SYSTEM","optional":"true"}, {"name":"description","attribute":"description","type":"SYSTEM","optional":"true"}], "strategy":"Group"}`
 - Example: `organizationSyncConfiguration::{"rules":[{"name":"name","attribute":"distinguishedName","type":"SYSTEM","optional":"true"}, {"name":"description","attribute":"description","type":"SYSTEM","optional":"true"}], "strategy":"Group"}`

**Note:**

- When you add AD/LDAP, the system will automatically check whether the server, port, base DN, login attribute, user DN, and password are correct. The waiting time does not exceed 5 seconds.

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ef7291bd94ce478880938851e3ff6ad6",
    "name": "miao",
    "description": "miao desc",
    "url": "ldap://localhost:1888",

```

```

"base": "dc\u003dexample,dc\u003dcom",
"username": "",
"password": "",
"encryption": "None"
}
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LdapServerInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
url	String		0.6
base	String	The base DN of the LDAP server.	0.6
username	String	The username used to access the LDAP server.	0.6
password	String	The password.	0.6
encryption	String	The encryption method.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
AddLdapServerAction action = new AddLdapServerAction();
action.name = "miao";
action.description = "miao desc";
action.url = "ldap://localhost:1888";
action.base = "dc=example,dc=com";
action.username = "";
action.password = "";
action.encryption = "None";
action.sessionId = "c805609607b94f1688e4f5791089ab6f";
AddLdapServerAction.Result res = action.call();
```

Python SDK

```
AddLdapServerAction action = AddLdapServerAction()
action.name = "miao"
action.description = "miao desc"
action.url = "ldap://localhost:1888"
action.base = "dc=example,dc=com"
action.username = ""
action.password = ""
action.encryption = "None"
action.sessionId = "611a70f771874450945f77465bca7642"
```

```
AddLdapServerAction.Result res = action.call()
```

8.3.2 DeleteLdapServer

API Request

URLs

```
DELETE/v1/ldap/servers/{uuid}?deleteMode={deleteMode}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth a90abb1116c0428097769adfdc9ae867" \
-X DELETE http://localhost:8080/zstack/v1/ldap/
servers/93d7c467c493464fa3d244163c94f64e?deleteMode=Permissive
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
deleteMode	String	body	Optional. The delete mode.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteLdapServerAction action = new DeleteLdapServerAction();
action.uuid = "0e757aebf26346c19ee1f163ea9f0915";
action.deleteMode = "Permissive";
action.sessionId = "3dae39cdbba749ba91deda6b854695ec";
DeleteLdapServerAction.Result res = action.call();
```

Python SDK

```
DeleteLdapServerAction action = DeleteLdapServerAction()
action.uuid = "7755f302acd44c62833f9d4eb3f7327c"
action.deleteMode = "Permissive"
action.sessionId = "61e33f5ab13b44ef873ef7fc719d3804"
DeleteLdapServerAction.Result res = action.call()
```

8.3.3 QueryLdapServer

API Request

URLs

```
GET zstack/v1/ldap/servers
GET zstack/v1/ldap/servers/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 940b9dba281d40b897497a95e8a0e942" \
-X GET http://localhost:8080/zstack/v1/ldap/servers?q=name=ldap server
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e4e74e66dc074b24b7071b43b12240a2" \
-X GET http://localhost:8080/zstack/v1/ldap/servers/
c898d74cdcb94ac4b3b28ac6b7a8f7f5
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryLdapServer**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "91820f68407a441c9ba031ac15fa322d",
      "name": "miao",
      "description": "miao desc",
      "url": "ldap://localhost:1888",
      "base": "dc\u003dexample,dc\u003dcom",
      "username": "",
      "password": "",
      "encryption": "None"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
url	String		0.6
base	String	The base DN of the LDAP server.	0.6
username	String	The username used to access the LDAP server.	0.6
password	String	The password.	0.6
encryption	String	The encryption method.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryLdapServerAction action = new QueryLdapServerAction();
action.conditions = asList("name=ldap server");
action.sessionId = "a8d28261d5b940c9bdd4712a511bd537";
QueryLdapServerAction.Result res = action.call();
```

Python SDK

```
QueryLdapServerAction action = QueryLdapServerAction()
action.conditions = ["name=ldap server"]
```

```
action.sessionId = "aee6bc43a2fb4f1eb6c35e3a064dd464"
QueryLdapServerAction.Result res = action.call()
```

8.3.4 UpdateLdapServer

API Request

URLs

```
PUT zstack/v1/ldap/servers/{ldapServerUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateLdapServer": {
    "name": "new name"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth e0360b3fd1d04df0b98005ab41f233ea" \
-X PUT -d '{"updateLdapServer":{"name":"new name"}}' \
http://localhost:8080/zstack/v1/ldap/
servers/6c2af8cab16b3310a3d31aa772b093ba
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ldapServerUuid	String	url	The LDAP server UUID.		0.6
name	String	body (contained in the updateLdap	Optional. The resource name.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		Server structure)			
description	String	body (contained in the updateLdap Server structure)	Optional. The detailed description of the resource.		0.6
url	String	body (contained in the updateLdap Server structure)	Optional. The URL of the LDAP server.		0.6
base	String	body (contained in the updateLdap Server structure)	Optional. The base DN of the LDAP server.		0.6
username	String	body (contained in the updateLdap Server structure)	Optional. The username used to access the LDAP server.		0.6
password	String	body (contained in the updateLdap Server structure)	Optional. The password.		0.6
encryption	String	body (contained in the updateLdap Server structure)	Optional. The encryption method.	• None • TLS	0.6

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "8e1ee5b25564449fbd6054621567b5c1",
    "name": "new name",
    "description": "miao desc",
    "url": "ldap://localhost:1888",
    "base": "dc\u003dexample,dc\u003dcom",
    "username": "",
    "password": "",
    "encryption": "None"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LdapServerInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
url	String		0.6
base	String	The base DN of the LDAP server.	0.6
username	String	The username used to access the LDAP server.	0.6
password	String	The password.	0.6
encryption	String	The encryption method.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
UpdateLdapServerAction action = new UpdateLdapServerAction();
action.ldapServerUuid = "37fbaf59c5d74dd7b61c2af4e74c28cf";
action.name = "new name";
action.sessionId = "f968929105af41ef8a6a2c602f315c91";
UpdateLdapServerAction.Result res = action.call();
```

Python SDK

```
UpdateLdapServerAction action = UpdateLdapServerAction()
action.ldapServerUuid = "57e7fe86092046228999e8599c6c8bd1"
action.name = "new name"
action.sessionId = "f6ca4878b0164e9eab1d6219777c5af2"
UpdateLdapServerAction.Result res = action.call()
```

8.3.5 CreateLdapBinding

API Request

URLs

```
POST zstack/v1/ldap/bindings
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "ldapUid": "ou\u003dEmployee,uid\u003dtest",
    "accountUuid": "29777229ee1e32d29c6f255b126e29a1"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X POST -d '{"params":
{"ldapUid": "ou=Employee,uid=test", "accountUuid": "29777229ee1e32d29c6f255b126e29a1
http://localhost:8080/zstack/v1/ldap/bindings
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ldapUid	String	body (contained in the params structure)	The LDAP UID.		4.7.0
accountUuid	String	body (contained in the params structure)	The account UUID.		4.7.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "a552eb007adf4070ade72a4b678ecc30",
    "ldapUid": "ou\u003dEmployee,uid\u003dtest",
    "ldapServerUuid": "cd37f226e18c4ef09bb613200e3e90ba",
    "accountUuid": "5ff96c17eb8f476a988991e9410b153f"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LdapAccountRefInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ldapUid	String	The LDAP UID.	0.6
ldapServerUuid	String	The LDAP server UUID.	0.6
accountUuid	String	The account UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
CreateLdapBindingAction action = new CreateLdapBindingAction();
action.ldapUid = "ou=Employee,uid=test";
action.accountUuid = "7bff0855d3da4ab89659d29821d6daee";
action.sessionId = "5fd897a8db504aee91a64a3b02c05ce9";
CreateLdapBindingAction.Result res = action.call();
```

Python SDK

```
CreateLdapBindingAction action = CreateLdapBindingAction()
action.ldapUid = "ou=Employee,uid=test"
action.accountUuid = "db2842e0b16d4aa2af39abee7e80d2f1"
action.sessionId = "9ece25398fe74a91a90cec68b50cd203"
CreateLdapBindingAction.Result res = action.call()
```

8.3.6 DeleteLdapBinding

API Request

URLs

```
DELETE/v1/ldap/bindings/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 50d8d41e03b54adf9d8d88342a9d6efe" \
-X DELETE http://localhost:8080/zstack/v1/ldap/
bindings/9a04287ade54400686e99485c86d9545?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteLdapBindingAction action = new DeleteLdapBindingAction();
action.uuid = "5f9ff578f8ff4231b2ad18f5aa185076";
action.sessionId = "6690dcc7a9c64c26a17ae9bf29955e0a";
DeleteLdapBindingAction.Result res = action.call();
```

Python SDK

```
DeleteLdapBindingAction action = DeleteLdapBindingAction()
action.uuid = "3e5a338390d046008e2723c475c90a66"
action.sessionId = "2f93ee0fc083464fbe73053354ba470c"
DeleteLdapBindingAction.Result res = action.call()
```

8.3.7 QueryLdapBinding

AP Request

URLs

```
GET zstack/v1/ldap/bindings
GET zstack/v1/ldap/bindings/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth f114b38ccae244c38cda7ec7dbdd062c" \
-X GET http://localhost:8080/zstack/v1/ldap/bindings?
q=accountUuid=f1672bbe810b4b3b89f030f5f51fdb79
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 43f9144da747462eaa08da071d317c45" \
```

```
-X GET http://localhost:8080/zstack/v1/ldap/
bindings/9e959125b2f64a86a2a380b335b2543e
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering `QueryLdapBinding`, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "7e7c5818d2bc4d45b61fdbed5c1a64b0",
      "ldapUid": "ou\u003dEmployee,uid\u003dtest",
      "ldapServerUuid": "540e7691df7349c58cff8ffcaf305b9b",
      "accountUuid": "0829b88f337b4500b2ba28936fe5ae3d"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
ldapUid	String	The LDAP UID.	0.6
ldapServerUuid	String	The LDAP server UUID.	0.6
accountUuid	String	The account UUID.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryLdapBindingAction action = new QueryLdapBindingAction();
action.conditions = asList("accountUuid=d5915883c1c04b62af8423f04bb1b3f3");
action.sessionId = "2b7a31a70f7d4e90b0159cd0b9396f26";
QueryLdapBindingAction.Result res = action.call();
```

Python SDK

```
QueryLdapBindingAction action = QueryLdapBindingAction()
action.conditions = ["accountUuid=15cdbd6f45bf434492ef22eb2d77b6f4"]
action.sessionId = "4956fb9e5d874e88851634154bda4d4a"
```



```
QueryLdapBindingAction.Result res = action.call()
```

8.3.8 CleanInvalidLdapBinding

API Request

URLs

```
PUT zstack/v1/ldap/bindings/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "cleanInvalidLdapBinding": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth f8ba3bdbb1fe407db3da890e5a47d322" \
-X PUT -d '{"cleanInvalidLdapBinding":{}}' \
http://localhost:8080/zstack/v1/ldap/bindings/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventories": [
```

```
{
  "uuid": "f9e03ca4fe8a3680831df56460533615",
  "name": "admin",
  "type": "Normal",
  "createDate": "Nov 14, 2017 10:20:57 PM",
  "lastOpDate": "Nov 14, 2017 10:20:57 PM"
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6
type	String	The account type, including administrator and user.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
CleanInvalidLdapBindingAction action = new CleanInvalidLdapBindingAction();
action.sessionId = "ba374e312f0044669323e3ba55aa44a2";
CleanInvalidLdapBindingAction.Result res = action.call();
```

Python SDK

```
CleanInvalidLdapBindingAction action = CleanInvalidLdapBindingAction()
action.sessionId = "61a940c24a5e4667a03c87dbd968dfd8"
CleanInvalidLdapBindingAction.Result res = action.call()
```

8.3.9 LoginByLdap

API Request

URLs

```
PUT zstack/v1/ldap/login
```

Body

```
{
  "loginByLdap": {
    "uid": "ou\u003dEmployee,uid\u003dtest",
    "password": "password",
    "verifyCode": "test",
    "captchaUuid": "3bb4e611b10e32cfaaa7fb4b1e3515ac"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-X PUT -d '{"logInByLdap":
{"uid":"ou=Employee,uid=test", "password":"password", "verifyCode":"test", "captcha":
http://localhost:8080/zstack/v1/ldap/login
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uid	String	body (contained in the logInByLdap structure)	The LDAP UID.		0.6
password	String	body (contained in the logInByLdap structure)	The password.		0.6
captchaUuid	String	body (contained in the logInByLdap structure)	Optional. The verification code UUID.		2.6.0
verifyCode	String	body (contained in the logInByLdap structure)	Optional. The verification code.		2.6.0
clientInfo	Map	body (contained in the logInByLdap structure)	Optional. The client information.		3.5.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "2ce3cd4b2e5c441699edc09e612e916c",
    "accountUuid": "27df0ac39afd42eab643dfb1d448252b",
    "expiredDate": "Jun 7, 2017 9:20:34 PM"
    "noSessionEvaluation": false
  },
  "accountInventory": {
    "uuid": "243382994e2643c18f5f5ec69305d866",
    "name": "test",
    "type": "Normal"
  }
}
```

Name	Type	Description	Starting Version
success	boolean	Whether the API succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	SessionInventory	See inventory .	0.6
accountInventory	AccountInventory	See accountInventory .	0.6
error	ErrorCode	See error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	0.6

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
accountUuid	String	The account UUID.	0.6
userUuid	String	The user UUID.	0.6
expiredDate	Timestamp	The expiration date of the session.	0.6
createDate	Timestamp	The creation date.	0.6

#accountInventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
description	String	The detailed description of the resource.	0.6

Name	Type	Description	Starting Version
type	String	The account type, including administrator and user.	0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```

LogInByLdapAction action = new LogInByLdapAction();
action.uid = "ou=Employee,uid=test";
action.password = "password";
action.verifyCode = "test";
action.captchaUuid = "3bb4e611b10e32cfaaa7fb4b1e3515ac";

```

```
LogInByLdapAction.Result res = action.call();
```

Python SDK

```
LogInByLdapAction action = LogInByLdapAction()
action.uid = "ou=Employee,uid=test"
action.password = "password"
action.verifyCode = "test"
action.captchaUuid = "3bb4e611b10e32cfaaa7fb4b1e3515ac"
LogInByLdapAction.Result res = action.call()
```

8.3.10 GetLdapEntry

API Request

URLs

```
GET zstack/v1/ldap/entry
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/ldap/entry?
ldapFilter=(cn=user_xxx)&limit=2500.0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ldapFilter	String	query	The query condition.		2.2
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2
limit	Integer	query	Optional. The maximum number of returned records. This parameter is similar to the		2.2

Name	Type	Location	Description	Optional Value	Starting Version
			limit field of MySQL.		

API Response

Sample Response

```
{
  "inventories": [
    {
      "attributes": [
        {
          "id": "userPrincipalName",
          "orderMatters": false,
          "values": [
            "weiqi@adtest.zs"
          ],
          "valuesAsNames": {}
        },
        {
          "id": "displayName",
          "orderMatters": false,
          "values": [
            "zstest"
          ],
          "valuesAsNames": {}
        },
        {
          "id": "name",
          "orderMatters": false,
          "values": [
            "weiqi"
          ],
          "valuesAsNames": {}
        },
        {
          "id": "distinguishedName",
          "orderMatters": false,
          "values": [
            "CN=weiqi,OU=ui,OU=zstest,DC=adtest,DC=zs"
          ],
          "valuesAsNames": {}
        },
        {
          "id": "cn",
          "orderMatters": false,
          "values": [
            "weiqi"
          ],
          "valuesAsNames": {}
        },
        {
          "id": "objectClass",
          "orderMatters": false,
          "values": [
            "top",
```

```

        "person",
        "organizationalPerson",
        "user"
      ],
      "valuesAsNames": {}
    }
  ],
  "dn": "CN=weiqi,OU=ui,OU=zstest,dc=adtest,dc=zs"
},
"success": true
}

```

Name	Type	Description	Starting Version
inventories	List		2.2
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	2.2

Name	Type	Description	Starting Version
		exists, this parameter is null.	

SDK Sample

Java SDK

```
GetLdapEntryAction action = new GetLdapEntryAction();
action.ldapFilter = "(cn=user_xxx)";
action.limit = 2500.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetLdapEntryAction.Result res = action.call();
```

Python SDK

```
GetLdapEntryAction action = GetLdapEntryAction()
action.ldapFilter = "(cn=user_xxx)"
action.limit = 2500.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetLdapEntryAction.Result res = action.call()
```

8.3.11 GetCandidateLdapEntryForBinding

API Request

URLs

```
GET zstack/v1/ldap/entries/candidates
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/ldap/entries/candidates?
ldapFilter=(cn=user_xxx)&limit=2500.0
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
ldapFilter	String	query	The query condition.		2.2

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		2.2
userTags	List	query	Optional. The user tags.		2.2
limit	Integer	query	Optional. The maximum number of returned records. This parameter is similar to the limit field of MySQL.		2.2

API Response

Sample Response

```
{
  "inventories": [
    {
      "attributes": [
        {
          "id": "userPrincipalName",
          "orderMatters": false,
          "values": [
            "weiqi@adtest.zs"
          ],
          "valuesAsNames": {}
        },
        {
          "id": "displayName",
          "orderMatters": false,
          "values": [
            "zstest"
          ],
          "valuesAsNames": {}
        },
        {
          "id": "name",
          "orderMatters": false,
          "values": [
            "weiqi"
          ],
          "valuesAsNames": {}
        },
        {
          "id": "distinguishedName",
          "orderMatters": false,
          "values": [
```

```

        "CN=weiqi,OU=ui,OU=zstest,DC=adtest,DC=zs"
    ],
    "valuesAsNames": {}
  },
  {
    "id": "cn",
    "orderMatters": false,
    "values": [
      "weiqi"
    ],
    "valuesAsNames": {}
  },
  {
    "id": "objectClass",
    "orderMatters": false,
    "values": [
      "top",
      "person",
      "organizationalPerson",
      "user"
    ],
    "valuesAsNames": {}
  }
],
"dn": "CN=weiqi,OU=ui,OU=zstest,dc=adtest,dc=zs"
},
"success": true
}

```

Name	Type	Description	Starting Version
inventories	List		2.2
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.2

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.2
description	String	The brief description of the error.	2.2

Name	Type	Description	Starting Version
details	String	The details about the error.	2.2
elaboration	String	The reserved field. Default value: null.	2.2
opaque	LinkedHashMap	The reserved field. Default value: null.	2.2
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.2

SDK Sample

Java SDK

```
GetCandidateLdapEntryForBindingAction action = new GetCandidateLdapEntryForBindingAction();
action.ldapFilter = "(cn=user_xxx)";
action.limit = 2500.0;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetCandidateLdapEntryForBindingAction.Result res = action.call();
```

Python SDK

```
GetCandidateLdapEntryForBindingAction action = GetCandidateLdapEntryForBindingAction()
action.ldapFilter = "(cn=user_xxx)"
action.limit = 2500.0
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetCandidateLdapEntryForBindingAction.Result res = action.call()
```

8.3.12 CreateOAuthClient

API Request

URLs

```
POST zstack/v1/create/oauth2/client
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "test",
    "description": "test",
    "clientId": "756770202fcd36bfbaa00ea7dea7f5ff",
    "clientSecret": "8255b36a4e0e38ffa20dda1a079aa687",
    "authorizationUrl": "http://zstack.com/code",
    "tokenUrl": "http://zstack.com/token",
    "userInfoUrl": "http://zstack.com/userinfoUrl",
    "redirectUrl": "http://zstack.com/redirectUrl",
    "logoutUrl": "http://zstack.com/logoutUrl",
    "loginType": "iam1",
    "identityProvider": "zf-soft",
    "pluginUuid": "393e36ee1b9e3dd281ef04443a0b4c73",
    "urlTemplate": "http://172.24.194.28:5000/oauth1/verify/?username
\u003d${username}\u0026sessionId\u003d${sessionId}\u0026userUuid\u003d
${userUuid}\u0026accountUuid\u003d${accountUuid}\u0026loginType\u003d
${loginType}\u0026userType\u003d${userType}\u0027",
    "scopeList": [
      "559bf858d9cd35ce830dcfbfc2195195"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"test","description":"test","clientId":"756770202fcd36bfbaa00ea7dea7f5ff",
"code","tokenUrl":"http://zstack.com/
token","userInfoUrl":"http://zstack.com/
```

```

userinfoUrl", "redirectUrl": "http://zstack.com/
redirectUrl", "logoutUrl": "http://zstack.com/
logoutUrl", "loginType": "iam1", "identityProvider": "zf-
soft", "pluginUuid": "393e36ee1b9e3dd281ef04443a0b4c73", "urlTemplate": "http://172.2
oauth1/verify/?username=${username}&sessionId=${sessionId}&userUuid=
${userUuid}&accountUuid=${accountUuid}&loginType=
${loginType}&userType=${userType}'", "scopeList":
["559bf858d9cd35ce830dcfbfc2195195"]}]}' http://localhost:8080/zstack/
v1/create/oauth2/client

```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	The resource name.		4.5.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
clientId	String	body (contained in the params structure)	The client ID.		4.5.0
clientSecret	String	body (contained in the params structure)	Optional. The client key.		4.5.0
authorizationUrl	String	body (contained in the params structure)	Optional. The authentication url.		4.5.0
tokenUrl	String	body (contained in the params structure)	The authentication token url.		4.5.0
loginType	String	body (contained in the params structure)	The login type.	- cas-iam1 - cas-ima2 - oauth2-iam1	4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
				oauth2-iam2	
clientType	String	body (contained in the params structure)	The client type .		4.5.0
grantType	String	body (contained in the params structure)	The authentication mode.		4.5.0
urlTemplate (可选)	String	body (contained in the params structure)	The address skipped to after the authentication.		4.5.0
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.5.0
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		4.5.0
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. The user tag.		4.5.0
userinfoUrl	String	body (contained in the params structure)	Optional. User information url.		4.7.21
redirectUrl	String	body (contained in the params structure)	Optional. User redirect url.		4.7.21
logoutUrl	String	body (contained in	Optional. Logout url.		4.7.21

Name	Type	Location	Description	Optional Value	Starting Version
		the params structure)			
scopeList	List	body (contained in the params structure)	Optional. Permission scope.		5.1.8
identityProvider	String	body (contained in the params structure)	Optional. The identity provider.		5.1.8
pluginUuid (可选)	String	body (contained in the params structure)	The plugin UUID.		5.3.20

API Response

Sample Response

```
{
  "inventory": {
    "clientId": "b7e1d25d8ae833f8b6f13c448efbfb4a",
    "clientSecret": "64a93cc0b9263993a25ef033994afc10",
    "authorizationUrl": "http://zstack.com/code",
    "tokenUrl": "http://zstack.com/token",
    "userInfoUrl": "http://zstack.com/userinfoUrl",
    "uuid": "628dbf582da836ba9693c8813f98371f",
    "loginMNUUrl": "http://127.0.0.1:8080/zstack/sso/oauth2/",
    "redirectUrl": "http://zstack.com/redirectUrl"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventory	OAuth2ClientInventory	See inventory .	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0

#inventory

Name	Type	Description	Starting Version
clientId	String	The client ID.	4.5.0
clientSecret	String	The client key.	4.5.0
authorizationUrl	String	The authentication url.	4.5.0
tokenUrl	String	The authentication token url.	4.5.0
grantType	String	The authentication mode.	4.5.0
uuid	String	The resource UUID.	4.5.0
name	String	The resource name.	4.5.0
description	String	The detailed information of the resource.	4.5.0
clientType	String	The client type.	4.5.0
loginType	String	The login type: - cas-iam1 - cas-ima2 - oauth2-iam1 - oauth2-iam2	4.5.0
loginMNUrl	String	The password-free login url.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0
accountUuid	String	The account UUID.	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
CreateOAuthClientAction action = new CreateOAuthClientAction();
action.name = "test";
action.description = "test";
action.clientId = "756770202fcd36bfbaa00ea7dea7f5ff";
action.clientSecret = "8255b36a4e0e38ffa20dda1a079aa687";
action.authorizationUrl = "http://zstack.com/code";
action.tokenUrl = "http://zstack.com/token";
action.userInfoUrl = "http://zstack.com/userinfoUrl";
action.redirectUrl = "http://zstack.com/redirectUrl";
action.logoutUrl = "http://zstack.com/logoutUrl";
action.loginType = "iam1";
action.identityProvider = "zf-soft";
action.pluginUuid = "393e36ee1b9e3dd281ef04443a0b4c73";
action.urlTemplate = "http://172.24.194.28:5000/oauth1/verify/?username=${username}&sessionId=${sessionId}&userUuid=${userUuid}&accountUuid=${accountUuid}&loginType=${loginType}&userType=${userType}'";
action.scopeList = asList("559bf858d9cd35ce830dcfbfc2195195");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateOAuthClientAction.Result res = action.call();
```

Python SDK

```
CreateOAuthClientAction action = CreateOAuthClientAction()
action.name = "test"
action.description = "test"
action.clientId = "756770202fcd36bfbaa00ea7dea7f5ff"
action.clientSecret = "8255b36a4e0e38ffa20dda1a079aa687"
action.authorizationUrl = "http://zstack.com/code"
action.tokenUrl = "http://zstack.com/token"
```

```

action.userInfoUrl = "http://zstack.com/userinfoUrl"
action.redirectUrl = "http://zstack.com/redirectUrl"
action.logoutUrl = "http://zstack.com/logoutUrl"
action.loginType = "iam1"
action.identityProvider = "zf-soft"
action.pluginUuid = "393e36ee1b9e3dd281ef04443a0b4c73"
action.urlTemplate = "http://172.24.194.28:5000/oauth1/
verify/?username=${username}&sessionId=${sessionId}&userUuid=
${userUuid}&accountUuid=${accountUuid}&loginType=
${loginType}&userType=${userType}'"
action.scopeList = [559bf858d9cd35ce830dcfbfc2195195]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateOAuthClientAction.Result res = action.call()

```

8.3.13 DeleteSSOClient

API Request

URLs

```
POST zstack/v1/delete/sso/client
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "uuid": "3e54cb2e27ff31dda2c49851bf2662d2",
    "deleteMode": "Permissive"
  },
  "systemTags": [],
  "userTags": []
}

```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl示例

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"uuid":"3e54cb2e27ff31dda2c49851bf2662d2","deleteMode":"Permissive"}}' \
http://localhost:8080/zstack/v1/delete/sso/client

```

参数列表

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in the params structure)	The resource UUID.		4.5.0
deleteMode	String	body (contained in the params structure)	Optional. The deletion mode: • Permissive • Enforcing, Permissive		4.5.0
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. The user tag.		4.5.0

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteSSOClientAction action = new DeleteSSOClientAction();
action.uuid = "3e54cb2e27ff31dda2c49851bf2662d2";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteSSOClientAction.Result res = action.call();
```

Python SDK

```
DeleteSSOClientAction action = DeleteSSOClientAction()
action.uuid = "3e54cb2e27ff31dda2c49851bf2662d2"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeleteSSOClientAction.Result res = action.call()
```

8.3.14 UpdateOAuthClient

API Request

URLs

```
POST zstack/v1/update/oauth2/client
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "test",
    "description": "test",
    "clientId": "9f44e569b86c3883b0295fcab980e945",
    "clientSecret": "8b151acd0f7533538ed9e9315fadcaca",
    "authorizationUrl": "http://zstack.com/code",
    "tokenUrl": "http://zstack.com/token",
    "redirectUrl": "http://zstack.com/redirectUrl",
    "userInfoUrl": "http://zstack.com/userinfoUrl",
    "identityProvider": "zf-soft",
    "pluginUuid": "0b3b9a43772439c3aaa102fe8361b3d1",
    "loginType": "iam1",
    "logoutUrl": "http://zstack.com/logouturl",
    "scopeList": [
      "d8f4a70ef87b35c986336a88dd5bafd1"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"name":"test","description":"test","clientId":"9f44e569b86c3883b0295fcab980e945",
"code","tokenUrl":"http://zstack.com/
token","redirectUrl":"http://zstack.com/
redirectUrl","userInfoUrl":"http://zstack.com/
userinfoUrl","identityProvider":"zf-
soft","pluginUuid":"0b3b9a43772439c3aaa102fe8361b3d1","loginType":"iam1","logoutU
```

```
logouturl", "scopeList": ["d8f4a70ef87b35c986336a88dd5bafd1"]]]}' http://localhost:8080/zstack/v1/update/oauth2/client
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	body (contained in the params structure)	The resource UUID.		4.5.0
name	String	body (contained in the params structure)	Optional. The resource name.		4.5.0
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		4.5.0
clientId	String	body (contained in the params structure)	Optional. The client ID.		4.5.0
clientSecret	String	body (contained in the params structure)	Optional. The client key.		4.5.0
authorizationUrl	String	body (contained in the params structure)	Optional. The authentication url.		4.5.0
tokenUrl	String	body (contained in the params structure)	The authentication token url.		4.5.0
loginType	String	body (contained in the params structure)	The login type: - cas-iam1 - cas-ima2 - oauth2-iam1		4.5.0

Name	Type	Location	Description	Optional Value	Starting Version
			oauth2-iam2		
systemTags	List	body	Optional. The system tag.		4.5.0
userTags	List	body	Optional. The user tag.		4.5.0
redirectUrl	String	body (contained in the params structure)	Optional. User information url.		4.7.21
userinfoUrl	String	body (contained in the params structure)	Optional. User redirect url.		4.7.21
logoutUrl	String	body (contained in the params structure)	Optional. Logout url.		4.7.21
scopeList	List	body (contained in the params structure)	Optional. The permission scope.		5.1.8
identityProvider	String	body (contained in the params structure)	Optional. The identity provider.		5.1.8
pluginUuid (可选)	String	body (contained in the params structure)	The plugin UUID.		5.3.20

API Response

Sample Response

```
{
  "inventory": {
    "clientId": "90de13d7ad483cb582bd14c792bd1ba7",
    "clientSecret": "e9107bd9f6213e29926da80c016a9639",
```

```

    "authorizationUrl": "http://zstack.com/code",
    "tokenUrl": "http://zstack.com/token",
    "userinfoUrl": "http://zstack.com/userinfoUrl",
    "uuid": "76467fb551ca362d98d6ba0782f3bb4c",
    "loginMNUrL": "http://127.0.0.1:8080/zstack/sso/oauth2/",
    "redirectUrl": "http://zstack.com/redirectUrl"
  }
}

```

Name	Type	Description	Starting Version
success	boolean		4.5.0
inventory	OAuth2ClientInventory	See inventory .	4.5.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.5.0

#inventory

Name	Type	Description	Starting Version
clientId	String	The client ID.	4.5.0
clientSecret	String	The client key.	4.5.0
authorizationUrl	String	The authentication url.	4.5.0
tokenUrl	String	The authentication token url.	4.5.0
grantType	String	The authentication mode.	4.5.0
uuid	String	The resource UUID.	4.5.0
name	String	The resource name.	4.5.0
description	String	The detailed description of the resource.	4.5.0
clientType	String	The client type.	4.5.0
loginType	String	The login type: - cas-iam1 - cas-ima2 - oauth2-iam1 - oauth2-iam2	4.5.0

Name	Type	Description	Starting Version
loginMNUrl	String	The password-free login url.	4.5.0
createDate	Timestamp	The creation date.	4.5.0
lastOpDate	Timestamp	The last operation date.	4.5.0
accountUuid	String	The account UUID.	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

SDK Sample

Java SDK

```
UpdateOAuthClientAction action = new UpdateOAuthClientAction();
action.name = "test";
action.description = "test";
action.clientId = "9f44e569b86c3883b0295fcab980e945";
action.clientSecret = "8b151acd0f7533538ed9e9315fadca";
```

```

action.authorizationUrl = "http://zstack.com/code";
action.tokenUrl = "http://zstack.com/token";
action.redirectUrl = "http://zstack.com/redirectUrl";
action.userInfoUrl = "http://zstack.com/userinfoUrl";
action.identityProvider = "zf-soft";
action.pluginUuid = "0b3b9a43772439c3aaa102fe8361b3d1";
action.loginType = "iam1";
action.logoutUrl = "http://zstack.com/logouturl";
action.scopeList = asList("d8f4a70ef87b35c986336a88dd5bafd1");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateOAuthClientAction.Result res = action.call();

```

Python SDK

```

UpdateOAuthClientAction action = UpdateOAuthClientAction()
action.name = "test"
action.description = "test"
action.clientId = "9f44e569b86c3883b0295fcab980e945"
action.clientSecret = "8b151acd0f7533538ed9e9315fadcaca"
action.authorizationUrl = "http://zstack.com/code"
action.tokenUrl = "http://zstack.com/token"
action.redirectUrl = "http://zstack.com/redirectUrl"
action.userInfoUrl = "http://zstack.com/userinfoUrl"
action.identityProvider = "zf-soft"
action.pluginUuid = "0b3b9a43772439c3aaa102fe8361b3d1"
action.loginType = "iam1"
action.logoutUrl = "http://zstack.com/logouturl"
action.scopeList = [d8f4a70ef87b35c986336a88dd5bafd1]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateOAuthClientAction.Result res = action.call()

```

8.4 SNMP Operations

8.4.1 CreateSnmpAgent

API Request

URLs

```
POST zstack/v1/snmp/agent
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```

{
  "params": {
    "version": "v3",
    "userName": "zstack",
    "authAlgorithm": "SHA512",
    "authPassword": "auth_password",
    "privacyAlgorithm": "DES",
    "privacyPassword": "priv_password",
    "port": 161
  }
}

```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":
{"version":"v3","userName":"zstack","authAlgorithm":"SHA512","authPassword":"auth
http://localhost:8080/zstack/v1/snmp/agent

```

Parameters

Name	Type	Location	Description	Valid Values	Starting Version
version	String	body (contained in the params structure)	The protocol version.	- v2c - v3	4.7.21
readCommunity	String	body (contained in the params structure)	Optional. The read community (used when for v2c version).		4.7.21
userName	String	body (contained in the params structure)	Optional. The user name (used for v3 version).		4.7.21
authAlgorithm	String	body (contained in the params structure)	Optional. The authentication algorithm.	- MD5 - SHA - SHA224 - SHA256 - SHA384 - SHA512	4.7.21

Name	Type	Location	Description	Valid Values	Starting Version
authPassword	String	body (contained in the params structure)	Optional. The authentication password.		4.7.21
privacyAlgorithm	String	body (contained in the params structure)	Optional. The privacy algorithm.	• DES • AES128 • AES192 • AES256 • 3DES	4.7.21
privacyPassword	String	body (contained in the params structure)	Optional. The privacy password.		4.7.21
port	int	body (contained in the params structure)	The port.		4.7.21
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		4.7.21
tagUuids	List	body (contained in the params structure)	Optional. The tag UUID.		4.7.21
systemTags	List	body	Optional. the system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "inventory": {
    "uuid": "6dac2a94d44c3216acc13286a50416aa",
    "version": "v3",
    "userName": "zstack",
```

```

    "authAlgorithm": "SHA512",
    "authPassword": "auth_password",
    "privacyAlgorithm": "DES",
    "privacyPassword": "priv_password",
    "port": 161,
    "status": "Enable",
    "securityLevel": "authPriv"
  }
}

```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	SnmpAgentInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
version	String	The protocol version.	4.7.21
readCommunity	String	The read community (used for the v2c version).	4.7.21
userName	String	The user name (used for the v3 version).	4.7.21
authAlgorithm	String	The authentication algorithm.	4.7.21
authPassword	String	The authentication password.	4.7.21
privacyAlgorithm	String	The privacy algorithm.	4.7.21
privacyPassword	String	The privacy password.	4.7.21
port	int	The port.	4.7.21
status	String	The SNMP agent status.	4.7.21
securityLevel	String	The security level.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```

CreateSnmAgentAction action = new CreateSnmAgentAction();
action.version = "v3";
action.userName = "zstack";
action.authAlgorithm = "SHA512";
action.authPassword = "auth_password";
action.privacyAlgorithm = "DES";
action.privacyPassword = "priv_password";
action.port = 161;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSnmAgentAction.Result res = action.call();

```

Python SDK

```

CreateSnmAgentAction action = CreateSnmAgentAction()

```



```

action.version = "v3"
action.userName = "zstack"
action.authAlgorithm = "SHA512"
action.authPassword = "auth_password"
action.privacyAlgorithm = "DES"
action.privacyPassword = "priv_password"
action.port = 161
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSnmAgentAction.Result res = action.call()

```

8.4.2 QuerySnmAgent

API Request

URLs

```

GET zstack/v1/snmp/agent
GET zstack/v1/snmp/agent/{uuid}

```

Headers

```

Authorization: OAuth the-session-uuid

```

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/snmp/agent

```

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/snmp/
agent/18c89b48e653385f83db6ecffb48763f

```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySnmAgent**, and pressing the Tab key.

API Response

Response Sample

```

{
  "inventories": [
    {
      "uuid": "f0ef8d847b573c6b86565e1d9111723b",
      "version": "v3",
      "userName": "zstack",
      "authAlgorithm": "SHA512",
      "authPassword": "auth_password",
      "privacyAlgorithm": "DES",
      "privacyPassword": "priv_password",
      "port": 161,
      "status": "Enable",

```

```

    "securityLevel": "authPriv"
  }
]
}

```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventories	List	See inventories .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
version	String	The protocol version.	4.7.21
readCommunity	String	The read community (used for the v2c version).	4.7.21
userName	String	The user name (used for the v3 version).	4.7.21
authAlgorithm	String	The authentication algorithm.	4.7.21
authPassword	String	The authentication password.	4.7.21
privacyAlgorithm	String	The privacy algorithm.	4.7.21
privacyPassword	String	The privacy password.	4.7.21
port	int	The port.	4.7.21
status	String	The SNMP agent status.	4.7.21
securityLevel	String	The security level.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
QuerySnmpAgentAction action = new QuerySnmpAgentAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySnmpAgentAction.Result res = action.call();
```

Python SDK

```
QuerySnmpAgentAction action = QuerySnmpAgentAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QuerySnmpAgentAction.Result res = action.call()
```

8.4.3 StartSnmpAgent

API Request

URLs

```
PUT zstack/v1/snmp/agent/actions
```

Headers

```
Authrization: OAuth the-session-uuid
```

Body

```
{
  "startSnmpAgent": {
    "uuid": "2e5ce17390a843da991411d27b67d775"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"startSnmpAgent":
{"uuid":"955799e296a94e4aa2ce063a5b1ea4b8"}}' http://
localhost:8080/zstack/v1/snmp/agent/actions
```

Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	body (contained in the startSnmpAgent structure).	The resource UUID.		4.7.21

Name	Type	Location	Description	Valid Values	Starting Version
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "eef797ff89d84305b51cc3edcb597909",
    "version": "v3",
    "userName": "zstack",
    "authAlgorithm": "SHA",
    "authPassword": "authPassword",
    "privacyAlgorithm": "AES128",
    "privacyPassword": "privPassword",
    "port": 162
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	SnmpAgentInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21

Name	Type	Description	Starting Version
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
version	String	The protocol version.	4.7.21
readCommunity	String	The read community (used for the v2c version)	4.7.21
userName	String	The user name (used for the v3 version)	4.7.21
authAlgorithm	String	The authentication algorithm.	4.7.21
authPassword	String	The authentication password.	4.7.21
privacyAlgorithm	String	The privacy algorithm.	4.7.21
privacyPassword	String	The privacy password.	4.7.21
port	int	The port.	4.7.21
status	String	The SNMP agent status.	4.7.21
securityLevel	String	The security level.	4.7.21
createDate	Timestamp	The creation date.	4.7.21

Name	Type	Description	Starting Version
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
StartSnmppAgentAction action = new StartSnmppAgentAction();
action.uuid = "a74555a81a4244bb9ce0f8f2b5691ac5";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
StartSnmppAgentAction.Result res = action.call();
```

Python SDK

```
StartSnmppAgentAction action = StartSnmppAgentAction()
action.uuid = "56f7b7cc6f764c55bf4016cc2257f456"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
StartSnmppAgentAction.Result res = action.call()
```

8.4.4 StopSnmppAgent

API Request

URLs

```
PUT zstack/v1/snmp/agent/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "stopSnmppAgent": {
    "uuid": "253c4449901c49f9928d2d7fd2119715"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"stopSnmpAgent":
{"uuid":"d3dcbbba6129e497480af319ee4e42749"}}' http://
localhost:8080/zstack/v1/snmp/agent/actions
```

Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	body (contained in the stopSnmpAgent structure).	The resource UUID.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "b32ac27ffdd03e7ea7857d318d5cfdd8",
    "version": "v3",
    "userName": "zstack",
    "authAlgorithm": "SHA512",
    "authPassword": "auth_password",
    "privacyAlgorithm": "DES",
    "privacyPassword": "priv_password",
    "port": 161,
    "status": "Enable",
    "securityLevel": "authPriv"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	SnmpAgentInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
version	String	The protocol version.	4.7.21
readCommunity	String	The read community (used for the v2c version).	4.7.21
userName	String	The user name (used for the v3 version).	4.7.21
authAlgorithm	String	The authentication algorithm.	4.7.21
authPassword	String	The authentication password.	4.7.21

Name	Type	Description	Starting Version
privacyAlgorithm	String	The privacy algorithm.	4.7.21
privacyPassword	String	The privacy password.	4.7.21
port	int	The port.	4.7.21
status	String	The SNMP agent status.	4.7.21
securityLevel	String	The security level.	4.7.21
createDate	Timestamp	The creation data.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
StopSnmppAgentAction action = new StopSnmppAgentAction();
action.uuid = "5b470e397e794dff84efa29375d9cef8";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
StopSnmppAgentAction.Result res = action.call();
```

Python SDK

```
StopSnmppAgentAction action = StopSnmppAgentAction()
action.uuid = "e48db055707445d3b70e8e52f7ee0ca3"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
StopSnmppAgentAction.Result res = action.call()
```

8.4.5 UpdateSnmppAgent

API Request

URLs

```
PUT zstack/v1/snmp/agent/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSnmppAgent": {
    "version": "v2c",
    "readCommunity": "zstack",
    "port": 1161
  }
}
```

```

    },
    "systemTags": [],
    "userTags": []
  }

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSnmAgent":
{"version":"v2c","readCommunity":"zstack","port":1161}}' http://
localhost:8080/zstack/v1/snmp/agent/actions

```

参数列表

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	body (contained in the updateSnmAgent structure).	The resource UUID.		4.7.21
version	String	body (contained in the updateSnmAgent structure).	The protocol version.	- v2c - v3	4.7.21
readCommunity	String	body (contained in the updateSnmAgent structure).	Optional. The read community (used for the v2c version).		4.7.21
userName	String	body (contained in the updateSnmAgent structure).	Optional. The user name (used for the v3 version).		4.7.21

Name	Type	Location	Description	Valid Values	Starting Version
		Agent structure).			
authAlgorithm	String	body (contained in the updateSnmpp Agent structure).	Optional. The authentication algorithm.	• MD5 • SHA • SHA224 • SHA256 • SHA384 • SHA512	4.7.21
authPassword (可选)	String	body (contained in the updateSnmpp Agent structure).	Optional. The authentication password.		4.7.21
privacyAlgorithm	String	body (contained in the updateSnmpp Agent structure).	Optional. The privacy algorithm.	• DES • AES128 • AES192 • AES256 • 3DES	4.7.21
privacyPassword	String	body (contained in the updateSnmpp Agent structure).	Optional. The privacy password.		4.7.21
port	int	body (contained in the updateSnmpp Agent structure).	The port.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "inventory": {
    "uuid": "cad9965ebedd495aa1f5718f31da1aa8",
    "version": "v3",
    "userName": "zstack",
    "authAlgorithm": "SHA",
    "authPassword": "authPassword",
    "privacyAlgorithm": "AES128",
    "privacyPassword": "privPassword",
    "port": 162
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	SnmpAgentInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.21
version	String	The protocol version.	4.7.21
readCommunity	String	The read community (used for the v2c version).	4.7.21
userName	String	The user name (used for the v3 version).	4.7.21
authAlgorithm	String	The authentication algorithm.	4.7.21
authPassword	String	The authentication password.	4.7.21
privacyAlgorithm	String	The privacy algorithm.	4.7.21
privacyPassword	String	The privacy password.	4.7.21
port	int	The port.	4.7.21
status	String	The SNMP agent status.	4.7.21
securityLevel	String	The security level.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
UpdateSnmpAgentAction action = new UpdateSnmpAgentAction();
action.version = "v2c";
action.readCommunity = "zstack";
```

```
action.port = 1161;
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateSnmpAgentAction.Result res = action.call();
```

Python SDK

```
UpdateSnmpAgentAction action = UpdateSnmpAgentAction()
action.version = "v2c"
action.readCommunity = "zstack"
action.port = 1161
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSnmpAgentAction.Result res = action.call()
```

8.4.6 CreateSNSSnmpEndpoint

API Request

URLs

```
POST zstack/v1/sns/application-endpoints/snmp
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "snmp endpoint",
    "platformUuid": "c453382b049c3280b69157501914870d"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"snmp endpoint", "platformUuid":"c453382b049c3280b69157501914870d"}}'
http://localhost:8080/zstack/v1/sns/application-endpoints/snmp
```

Parameters

Name	Type	Location	Description	Valid Values	Starting Version
name	String	body (contained in the params structure).	The resource name.		4.7.21
description	String	body (contained in the params structure).	Optional. The resource description.		4.7.21
platformUuid	String	body (contained in the params structure).	Optional. The application platform UUID.		4.7.21
resourceUuid	String	body (contained in the params structure).	Optional. The resource UUID.		4.7.21
tagUuids	List	body (contained in the params structure).	Optional. The tag UUID list.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Sample Response

```
{
  "inventory": {
    "name": "example",
    "uuid": "917fe66f76b241f0843dfbd6be685fc1",
    "description": "description example",
    "type": "Email",
    "state": "Enabled",
    "platformUuid": "4eb0ceebf95b452585ebeacd647d9f35",
    "createDate": "Sep 28, 2023 4:35:44 PM",
    "lastOpDate": "Sep 28, 2023 4:35:44 PM"
  }
}
```


}

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	SNSApplicationSnmpEndpointInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	4.7.21
uuid	String	The resource UUID.	4.7.21
description	String	The resource description.	4.7.21
type	String	The type.	4.7.21
platformUuid	String	The application platform UUID.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
CreateSNSSnmpEndpointAction action = new CreateSNSSnmpEndpointAction
();
action.name = "snmp endpoint";
action.platformUuid = "c453382b049c3280b69157501914870d";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSSnmpEndpointAction.Result res = action.call();
```

Python SDK

```
CreateSNSSnmpEndpointAction action = CreateSNSSnmpEndpointAction()
action.name = "snmp endpoint"
action.platformUuid = "c453382b049c3280b69157501914870d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSNSSnmpEndpointAction.Result res = action.call()
```

8.4.7 CreateSNSSnmpPlatform

API Request

URLs

```
POST zstack/v1/sns/application-platforms/snmp
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
```

```

"params": {
  "snmpAddress": "127.0.0.1",
  "snmpPort": 161,
  "name": "snmp platform"
},
"systemTags": [],
"userTags": []
}

```

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```

curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params": {
  "snmpAddress": "127.0.0.1", "snmpPort": 161, "name": "snmp platform"}}'
http://localhost:8080/zstack/v1/sns/application-platforms/snmp

```

Parameters

Name	Type	Location	Description	Valid Values	Starting Version
snmpAddress	String	body (contained in the params structure).	The SNMP server address.		4.7.21
snmpPort	Integer	body (contained in the params structure).	The SNMP server port.		4.7.21
name	String	body (contained in the params structure).	The resource name.		4.7.21
description	String	body (contained in the params structure).	Optional. The resource description.		4.7.21
resourceUuid	String	body (contained in the params structure).	Optional. The resource UUID.		4.7.21

Name	Type	Location	Description	Valid Values	Starting Version
		the params structure).			
tagUuids	List	body (contained in the params structure).	Optional. The tag UUID list.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "e13b9854866747738df3026dabae9689",
    "name": "email platform",
    "description": "example description",
    "state": "Enabled",
    "type": "Email",
    "createDate": "Sep 28, 2023 4:34:04 PM",
    "lastOpDate": "Sep 28, 2023 4:34:04 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	SNSApplicationSnmpPlatformInventory	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	4.7.21
uuid	String	The resource UUID.	4.7.21
description	String	The resource description.	4.7.21
type	String	The type.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
CreateSNSSnmpPlatformAction action = new CreateSNSSnmpPlatformAction
();
action.snmpAddress = "127.0.0.1";
action.snmpPort = 161;
action.name = "snmp platform";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CreateSNSSnmpPlatformAction.Result res = action.call();
```

Python SDK

```
CreateSNSSnmpPlatformAction action = CreateSNSSnmpPlatformAction()
action.snmpAddress = "127.0.0.1"
action.snmpPort = 161
action.name = "snmp platform"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
CreateSNSSnmpPlatformAction.Result res = action.call()
```

8.4.8 QuerySNSSnmpPlatform

API Request

URLs

```
GET zstack/v1/sns/application-platforms/snmp
GET zstack/v1/sns/application-platforms/snmp/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-platforms/snmp?
q=name=snmp
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/sns/application-platforms/
snmp/282706a5c66231019bf6c250304903bf
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QuerySnmpAgent**, and pressing the Tab key.

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
QuerySNSSnmpPlatformAction action = new QuerySNSSnmpPlatformAction();
action.conditions = asList("name=snmp");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QuerySNSSnmpPlatformAction.Result res = action.call();
```

Python SDK

```
QuerySNSSnmpPlatformAction action = QuerySNSSnmpPlatformAction()
action.conditions = ["name=snmp"]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QuerySNSSnmpPlatformAction.Result res = action.call()
```

8.4.9 UpdateSNSSnmpPlatform

API Request

URLs

```
PUT zstack/v1/sns/application-platforms/snmp/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateSNSSnmpPlatform": {
    "snmpAddress": "127.0.0.1",
    "snmpPort": 161,
    "name": "snmp platform name"
  },
  "systemTags": [],
  "userTags": []
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateSNSSnmpPlatform":
{"snmpAddress":"127.0.0.1","snmpPort":161,"name":"snmp platform
name"}}' http://localhost:8080/zstack/v1/sns/application-platforms/
snmp/cbd548888e9d37b594bc99c1892589ed
```

Parameters

Name	Type	Location	Description	Valid Values	Starting Version
snmpAddress	String	body (contained in the updateSNSSnmpPlatform structure).	The SNMP server address.		4.7.21
snmpPort	Integer	body (contained in the updateSNSSnmpPlatform structure).	The SNMP server port.		4.7.21
uuid	String	url	The resource UUID.		4.7.21
name	String	body (contained in the updateSNSSnmpPlatform structure).	Optional. The resource name.		4.7.21
description	String	body (contained in the updateSNSS	Optional. The resource description.		4.7.21

Name	Type	Location	Description	Valid Values	Starting Version
		nmpPlatform structure).			
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "38c619bf4e7a4cdaa04fcb44d85d5fc9",
    "name": "email platform",
    "description": "example description",
    "state": "Enabled",
    "type": "Email",
    "createDate": "Sep 28, 2023 4:32:51 PM",
    "lastOpDate": "Sep 28, 2023 4:32:51 PM"
  }
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
inventory	authentication	See inventory .	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	4.7.21
uuid	String	The resource UUID.	4.7.21
description	String	The resource description.	4.7.21
type	String	The type.	4.7.21
createDate	Timestamp	The creation date.	4.7.21
lastOpDate	Timestamp	The last operation date.	4.7.21

SDK Sample

Java SDK

```
UpdateSNSSnmpPlatformAction action = new UpdateSNSSnmpPlatformAction
();
action.snmpAddress = "127.0.0.1";
action.snmpPort = 161;
action.uuid = "cbd548888e9d37b594bc99c1892589ed";
action.name = "snmp platform name";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
UpdateSNSSnmpPlatformAction.Result res = action.call();
```

Python SDK

```
UpdateSNSSnmpPlatformAction action = UpdateSNSSnmpPlatformAction()
action.snmpAddress = "127.0.0.1"
action.snmpPort = 161
action.uuid = "cbd548888e9d37b594bc99c1892589ed"
action.name = "snmp platform name"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateSNSSnmpPlatformAction.Result res = action.call()
```

8.5 Plugin Operations

8.5.1 DeletePluginDrivers

API Request

URLs

```
DELETE zstack/v1/external/plugins/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/external/plugins/
e90949fe5ddd3e68a4646b97b812f905
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
uuid	String	body (contained in the params structure)	The resource UUID.		5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28
deleteMode	String	body	Optional. The deletion		5.3.28

Name	Type	Location	Description	Valid Values	Starting Version
			mode (Permissive / Enforcing, Permissive).		

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeletePluginDriversAction action = new DeletePluginDriversAction();
action.uuid = "e90949fe5ddd3e68a4646b97b812f905";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeletePluginDriversAction.Result res = action.call();
```

Python SDK

```
DeletePluginDriversAction action = DeletePluginDriversAction()
action.uuid = "e90949fe5ddd3e68a4646b97b812f905"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
DeletePluginDriversAction.Result res = action.call()
```

8.5.2 RefreshPluginDrivers

API Request

URLs

```
PUT zstack/v1/external/plugins
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "refreshPluginDrivers": {
    "name": "prometheus"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"refreshPluginDrivers":{"name":"prometheus"}}' http://
localhost:8080/zstack/v1/external/plugins
```

Request Parameters

Name	Type	Location	Description	Valid Values	Description
uuid	String	body (contained in the params structure)	The resource UUID.		5.3.28
systemTags	List	body	Optional. The system tags.		5.3.28
userTags	List	body	Optional. The user tags.		5.3.28

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RefreshPluginDriversAction action = new RefreshPluginDriversAction();
action.name = "prometheus";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RefreshPluginDriversAction.Result res = action.call();
```

Python SDK

```
RefreshPluginDriversAction action = RefreshPluginDriversAction()
action.name = "prometheus"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RefreshPluginDriversAction.Result res = action.call()
```

8.6 Settings Operations

8.6.1 Global Settings Operations

8.6.1.1 QueryGlobalConfig

API Request

URLs

```
GET zstack/v1/global-configurations
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 036d9a68cd8243e99e8d740eaf8b4baf" \
```

```
-X GET http://localhost:8080/zstack/v1/global-configurations
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryGlobalConfig**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "name": "reservedCapacity",
      "category": "backupStorage",
      "description": "Reserved capcacity on every backup storage",
      "defaultValue": "1G",
      "value": "2G"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
category	String		0.6
description	String	The detailed description of the resource.	0.6
defaultValue	String		0.6
value	String		0.6

SDK Sample

Java SDK

```
QueryGlobalConfigAction action = new QueryGlobalConfigAction();
action.conditions = asList();
action.sessionId = "8509eaa6301b4935a4b100a05f1fe2ba";
QueryGlobalConfigAction.Result res = action.call();
```

Python SDK

```
QueryGlobalConfigAction action = QueryGlobalConfigAction()
action.conditions = []
action.sessionId = "e085fdf6aa354291b71ae8dc5fa880fe"
```



```
QueryGlobalConfigAction.Result res = action.call()
```

8.6.1.2 UpdateGlobalConfig

API Request

URLs

```
PUT zstack/v1/global-configurations/{category}/{name}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateGlobalConfig": {
    "value": "90"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateGlobalConfig":{"value":"90"}}' \
http://localhost:8080/zstack/v1/global-configurations/quota/scheduler.num/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
category	String	url	The category.		0.6
name	String	url	The resource name.		0.6
value	String	body (contained in the updateGlob	Optional. The value.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
		alConfig structure)			
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "name": "scheduler.num",
    "category": "quota",
    "description": "default quota for scheduler.num",
    "defaultValue": "80",
    "value": "90"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	GlobalConfigInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
name	String	The resource name.	0.6
category	String		0.6
description	String	The detailed description of the resource.	0.6
defaultValue	String		0.6
value	String		0.6

SDK Sample

Java SDK

```
UpdateGlobalConfigAction action = new UpdateGlobalConfigAction();
action.category = "quota";
action.name = "scheduler.num";
action.value = "90";
action.sessionId = "84a1a9ed2d54449db13e01f7d6face7e";
UpdateGlobalConfigAction.Result res = action.call();
```

Python SDK

```
UpdateGlobalConfigAction action = UpdateGlobalConfigAction()
action.category = "quota"
action.name = "scheduler.num"
action.value = "90"
action.sessionId = "b077cfa8599a4ff1ac4fd7ba67b20a82"
```

```
UpdateGlobalConfigAction.Result res = action.call()
```

8.6.1.3 ResetGlobalConfig

API Request

URLs

```
PUT zstack/v1/global-configurations/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "resetGlobalConfig": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"resetGlobalConfig":{}}' http://localhost:8080/zstack/v1/global-configurations/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		3.1.0
userTags	List	body	Optional. The user tags.		3.1.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ResetGlobalConfigAction action = new ResetGlobalConfigAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ResetGlobalConfigAction.Result res = action.call();
```

Python SDK

```
ResetGlobalConfigAction action = ResetGlobalConfigAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ResetGlobalConfigAction.Result res = action.call()
```

8.6.2 Advanced Settings Operations

8.6.2.1 GetResourceConfig

API Request

URLs

```
GET zstack/v1/resource-configurations/{resourceUuid}/{category}/{name}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/resource-
configurations/77663dd5ff84460bbf1817aa3c59d125/host/
cpu.overProvisioning.ratio
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
category	String	url	The setting category.		3.4.0
name	String	url	The setting name.		3.4.0
resourceUuid	String	url	The resource UUID.		3.4.0
systemTags	List	query	Optional. The system tags.		3.4.0
userTags	List	query	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "value": "5",
  "effectiveConfigs": [
    {
      "uuid": "dae9aeb6d74e4f44823f2e0c4f1cc79f",
      "resourceUuid": "46597de31eac41539c4e6eda52885769",
      "resourceType": "HostV0",
      "name": "cpu.overProvisioning.ratio",
      "category": "host",
      "value": "5",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    },
    {
      "uuid": "5c3c94a73d7b4a95a1818241f2e427ae",
      "resourceUuid": "371519310f344695854de27bb9743121",
      "resourceType": "ClusterV0",
      "name": "cpu.overProvisioning.ratio",
      "category": "host",
      "value": "10",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
value	String	The setting value.	3.4.0
success	boolean		3.4.0

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
effectiveConfigs	List	The setting list that takes effect. Settings are ordered from high to low priorities. For more information, see effectiveConfigs .	3.4.0
error	ErrorCode	See error .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#effectiveConfigs

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
resourceUuid	String	The resource UUID corresponded by the setting.	3.4.0
resourceType	String	The resource type corresponded by the setting.	3.4.0
name	String	The setting name.	3.4.0
description	String	The detailed description of the setting.	3.4.0
category	String	The setting category.	3.4.0
value	String	The setting value.	3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current	3.4.0

Name	Type	Description	Starting Version
		error. If no root error exists, this parameter is null.	

SDK Sample

Java SDK

```
GetResourceConfigAction action = new GetResourceConfigAction();
action.category = "host";
action.name = "cpu.overProvisioning.ratio";
action.resourceUuid = "70fdcc564f564c29af98e48e78be56e4";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetResourceConfigAction.Result res = action.call();
```

Python SDK

```
GetResourceConfigAction action = GetResourceConfigAction()
action.category = "host"
action.name = "cpu.overProvisioning.ratio"
action.resourceUuid = "b1ea1d424bf04a50b15b33bcd0f8a80d"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetResourceConfigAction.Result res = action.call()
```

8.6.2.2 GetResourceBindableConfig

API Request

URLs

```
GET zstack/v1/resource-configurations/bindable
GET zstack/v1/resource-configurations/bindable/{category}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/resource-configurations/
bindable?category=host
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/resource-configurations/
bindable/host?category=host
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
category	String	query	Optional. The setting category.		3.4.0
systemTags	List	query	Optional. The system tags.		3.4.0
userTags	List	query	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "bindableConfigs": [
    {
      "name": "cpu.overProvisioning.ratio",
      "category": "host",
      "bindResourceTypes": [
        "HostVO",
        "ClusterVO",
        "ZoneVO"
      ]
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
bindableConfigs	List	See bindableConfigs .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	3.4.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#bindableConfigs

Name	Type	Description	Starting Version
name	String	The setting name.	3.4.0
category	String	The setting category.	3.4.0
description	String	The detailed description of the setting.	3.4.0
bindResourceTypes	List	The resource types that can be bound by the setting.	3.4.0

SDK Sample

Java SDK

```

GetResourceBindableConfigAction action = new GetResourceBindableConfigAction();
action.category = "host";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";

```

```
GetResourceBindableConfigAction.Result res = action.call();
```

Python SDK

```
GetResourceBindableConfigAction action = GetResourceBindableC
onfigAction()
action.category = "host"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetResourceBindableConfigAction.Result res = action.call()
```

8.6.2.3 DeleteResourceConfig

API Request

URLs

```
DELETE zstack/v1/resource-configurations/{category}/{name}/
{resourceUuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/resource-configurations/
host/cpu.overProvisioning.ratio/02bcf0b045e247e59bfd51630064443f
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
category	String	url	The setting category.		3.4.0
name	String	url	The setting name.		3.4.0
resourceUuid	String	url	The resource UUID.		3.4.0
deleteMode	String	body	Optional. The delete mode.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteResourceConfigAction action = new DeleteResourceConfigAction();
action.category = "host";
action.name = "cpu.overProvisioning.ratio";
action.resourceUuid = "763612d48d514b35a7df506cf1a23f57";
action.deleteMode = "Permissive";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteResourceConfigAction.Result res = action.call();
```

Python SDK

```
DeleteResourceConfigAction action = DeleteResourceConfigAction()
action.category = "host"
action.name = "cpu.overProvisioning.ratio"
action.resourceUuid = "4ac85edbee2c489ea58e3f26b53182de"
action.deleteMode = "Permissive"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteResourceConfigAction.Result res = action.call()
```

8.6.2.4 QueryResourceConfig

API Request

URLs

```
GET zstack/v1/resource-configurations
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X GET http://localhost:8080/zstack/v1/resource-configurations
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryResourceConfig**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "4944c2599c394bd5be5ccc1099dfdb4b",
      "resourceUuid": "45a511dfef1b474dbef3c1ff88275465",
      "resourceType": "ClusterV0",
      "name": "cpu.overProvisioning.ratio",
      "category": "host",
      "value": "10",
      "createDate": "Nov 14, 2017 10:20:57 PM",
      "lastOpDate": "Nov 14, 2017 10:20:57 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0
inventories	List	See inventories .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
resourceUuid	String	The resource UUID corresponded by the setting.	3.4.0
resourceType	String	The resource type corresponded by the setting.	3.4.0
name	String	The setting name.	3.4.0
description	String	The detailed description of the setting.	3.4.0
category	String	The setting category.	3.4.0
value	String	The setting value.	3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

SDK Sample

Java SDK

```
QueryResourceConfigAction action = new QueryResourceConfigAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
QueryResourceConfigAction.Result res = action.call();
```

Python SDK

```
QueryResourceConfigAction action = QueryResourceConfigAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryResourceConfigAction.Result res = action.call()
```

8.6.2.5 UpdateResourceConfig

API Request

URLs

```
PUT zstack/v1/resource-configurations/{category}/{name}/
{resourceUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateResourceConfig": {
    "value": "10"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateResourceConfig":{"value":"10"}}' http://
localhost:8080/zstack/v1/resource-configurations/host/
cpu.overProvisioning.ratio/afd5f67a253b4990b9e8160672357eed/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
category	String	url	The setting category.		3.4.0
name	String	url	The setting name.		3.4.0
resourceUuid	String	url	The resource UUID.		3.4.0
value	String	body (contained in the updateResourceConfig structure)	The setting value.		3.4.0
systemTags	List	body	Optional. The system tags.		3.4.0
userTags	List	body	Optional. The user tags.		3.4.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "ce61962673574ff689e2e6cb6f8cf558",
    "resourceUuid": "435a7c71c82b4b0b971f4674ab346822",
    "resourceType": "ClusterVO",
    "name": "cpu.overProvisioning.ratio",
    "category": "host",
    "value": "10",
    "createDate": "Nov 14, 2017 10:20:57 PM",
    "lastOpDate": "Nov 14, 2017 10:20:57 PM"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.4.0

Name	Type	Description	Starting Version
inventory	ResourceConfigInventory	See inventory .	3.4.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.4.0
description	String	The brief description of the error.	3.4.0
details	String	The details about the error.	3.4.0
elaboration	String	The reserved field. Default value: null.	3.4.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.4.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.4.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.4.0
resourceUuid	String	The resource UUID corresponded by the setting.	3.4.0
resourceType	String	The resource type corresponded by the setting.	3.4.0

Name	Type	Description	Starting Version
name	String	The setting name.	3.4.0
description	String	The detailed description of the setting.	3.4.0
category	String	The setting category.	3.4.0
value	String	The setting value.	3.4.0
createDate	Timestamp	The creation date.	3.4.0
lastOpDate	Timestamp	The last operation date.	3.4.0

SDK Sample

Java SDK

```
UpdateResourceConfigAction action = new UpdateResourceConfigAction();
action.category = "host";
action.name = "cpu.overProvisioning.ratio";
action.resourceUuid = "5fa296dff4f04c96b29f38bef93e9e15";
action.value = "10";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateResourceConfigAction.Result res = action.call();
```

Python SDK

```
UpdateResourceConfigAction action = UpdateResourceConfigAction()
action.category = "host"
action.name = "cpu.overProvisioning.ratio"
action.resourceUuid = "1e0f389aca364a1f94929bb4f39597b3"
action.value = "10"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateResourceConfigAction.Result res = action.call()
```

8.6.3 Template Operations

8.6.3.1 ApplyTemplateConfig

API Request

URLs

```
PUT zstack/v1/template-configurations/{templateUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "applyTemplateConfig": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"applyTemplateConfig":{}}' http://localhost:8080/zstack/
v1/template-configurations/00000000/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
templateUuid	String	url	The template UUID.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ApplyTemplateConfigAction action = new ApplyTemplateConfigAction();
action.templateUuid = "000000000";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ApplyTemplateConfigAction.Result res = action.call();
```

Python SDK

```
ApplyTemplateConfigAction action = ApplyTemplateConfigAction()
action.templateUuid = "000000000"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ApplyTemplateConfigAction.Result res = action.call()
```

8.6.3.2 QueryGlobalConfigTemplate

API Request

URLs

```
GET zstack/v1/template-configurations/templates
GET zstack/v1/template-configurations/templates/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/template-configurations/
templates?
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryGlobalConfigTemplate**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "reservedCapacity",
      "name": "scenes1",
      "type": "System",
      "description": "For scenes1"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0

Name	Type	Description	Starting Version
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.6.0
name	String	The template name.	3.6.0
type	String	The template type.	3.6.0
description	String	The detailed description of and the recommended scenario of the template.	3.6.0

SDK Sample

Java SDK

```
QueryGlobalConfigTemplateAction action = new QueryGlobalConfigTemplateAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryGlobalConfigTemplateAction.Result res = action.call();
```

Python SDK

```
QueryGlobalConfigTemplateAction action = QueryGlobalConfigTemplateAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryGlobalConfigTemplateAction.Result res = action.call()
```

8.6.3.3 QueryTemplateConfig**API Request**

URLs

```
GET zstack/v1/template-configurations/configs
```

```
GET zstack/v1/template-configurations/configs/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/template-configurations/
configs?
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryTemplateConfig**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "templateUuid": "0000111122223333",
      "category": "backupStorage",
      "name": "reservedCapacity",
      "defaultValue": "1G",
      "value": "2G"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0
inventories	List	See inventories .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error	3.6.0

Name	Type	Description	Starting Version
		. For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventories

Name	Type	Description	Starting Version
templateUuid	String	The template UUID.	3.6.0
category	String	The setting category.	3.6.0
name	String	The setting name.	3.6.0
defaultValue	String	The default template value.	3.6.0
value	String	The template value.	3.6.0

SDK Sample

Java SDK

```
QueryTemplateConfigAction action = new QueryTemplateConfigAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryTemplateConfigAction.Result res = action.call();
```

Python SDK

```
QueryTemplateConfigAction action = QueryTemplateConfigAction()
action.conditions = []
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
QueryTemplateConfigAction.Result res = action.call()
```

8.6.3.4 UpdateTemplateConfig

API Request

URLs

```
PUT zstack/v1/template-configurations/{templateUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateTemplateConfig": {
    "category": "quota",
    "name": "scheduler.num",
    "value": "90"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateTemplateConfig":
{"category":"quota","name":"scheduler.num","value":"90"}}' http://
localhost:8080/zstack/v1/template-configurations/0000/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
templateUuid	String	url	The template UUID.		3.6.0
category	String	body (contained in the	The corresponding		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
		updateTemplateConfig structure)	global setting category.		
name	String	body (contained in the updateTemplateConfig structure)	The corresponding global setting name.		3.6.0
value	String	body (contained in the updateTemplateConfig structure)	The template value.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

Sample Response

```
{
  "inventory": {
    "templateUuid": "000011112222",
    "category": "vm",
    "name": "emulateHyperv",
    "defaultValue": "true",
    "value": "true"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.6.0

Name	Type	Description	Starting Version
inventory	TemplateConfigInventory	See inventory .	3.6.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	3.6.0
description	String	The brief description of the error.	3.6.0
details	String	The details about the error.	3.6.0
elaboration	String	The reserved field. Default value: null.	3.6.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.6.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.6.0

#inventory

Name	Type	Description	Starting Version
templateUuid	String	The template UUID.	3.6.0
category	String	The setting category.	3.6.0
name	String	The setting name.	3.6.0
defaultValue	String	The default template value.	3.6.0
value	String	The template value.	3.6.0

SDK Sample

Java SDK

```
UpdateTemplateConfigAction action = new UpdateTemplateConfigAction();
action.templateUuid = "0000";
action.category = "quota";
action.name = "scheduler.num";
action.value = "90";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateTemplateConfigAction.Result res = action.call();
```

Python SDK

```
UpdateTemplateConfigAction action = UpdateTemplateConfigAction()
action.templateUuid = "0000"
action.category = "quota"
action.name = "scheduler.num"
action.value = "90"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateTemplateConfigAction.Result res = action.call()
```

8.6.3.5 ResetTemplateConfig

API Request

URLs

```
PUT zstack/v1/template-configurations/{templateUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "resetTemplateConfig": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"resetTemplateConfig":{}}' http://localhost:8080/zstack/v1/template-configurations/00000000/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
templateUuid	String	url	The template UUID.		3.6.0
systemTags	List	body	Optional. The system tags.		3.6.0
userTags	List	body	Optional. The user tags.		3.6.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
ResetTemplateConfigAction action = new ResetTemplateConfigAction();
action.templateUuid = "00000000";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
ResetTemplateConfigAction.Result res = action.call();
```

Python SDK

```
ResetTemplateConfigAction action = ResetTemplateConfigAction()
action.templateUuid = "00000000"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
ResetTemplateConfigAction.Result res = action.call()
```

8.6.3.6 RevertTemplateConfig

API Request

URLs

```
PUT zstack/v1/template-configurations/{templateUuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "resetTemplateConfig": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \-X PUT
-d '{"revertTemplateConfig":{}}' http://localhost:8080/zstack/v1/
template-configurations/fd5ae067a0b037d2af3a6ec060c4be86/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
templateUuid	String	url	The template UUID.		4.6.21
systemTags	List	body	Optional. The system tags.		4.6.21
userTags	List	body	Optional. The user tags.		4.6.21

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RevertTemplateConfigAction action = new RevertTemplateConfigAction();
action.templateUuid = "fd5ae067a0b037d2af3a6ec060c4be86";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
RevertTemplateConfigAction.Result res = action.call();
```

Python SDK

```
RevertTemplateConfigAction action = RevertTemplateConfigAction()
action.templateUuid = "fd5ae067a0b037d2af3a6ec060c4be86"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
RevertTemplateConfigAction.Result res = action.call()
```

8.6.4 HA Policy Operations

8.6.4.1 UpdateHaStrategyCondition

API Request

URLs

```
PUT zstack/v1/ha-strategy-condition/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateHaStrategyCondition": {
    "name": "new ha strategycondition name",
    "state": "Enable"
  },
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateHaStrategyCondition":{"name":"new
  ha strategycondition name","state":"Enable"}}'
http://localhost:8080/zstack/v1/ha-strategy-condition/
bf798f9ae94f3007a293f090ec555d57/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		4.7.0
name	String	body (contained in the updateHaStrategyCondition structure)	Optional. The resource name.		4.7.0
state	String	body(contained in the updateHaStrategyCondition structure)	Optional. The state		4.7.0
systemTags	List	body	Optional. The system tags.		4.7.0
userTags	List	body	Optional. The user tags.		4.7.0

API Response**Sample Response**

{

```

"inventory": {
  "uuid": "9a01c1cea2793814b8b1bf228a2ff601",
  "name": "test",
  "fencerName": "hostStorageState"
}
}

```

Name	Type	Description	Starting Version
success	boolean		4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0
inventory	ResourceConfigInventory	See inventory .	4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	4.7.0
name	String	The resource name.	4.7.0
fencerName	String	The fencer name.	4.7.0
state	String	The state.	4.7.0
createDate	Timestamp	The creation date.	4.7.0
lastOpDate	Timestamp	The last operation date.	4.7.0

SDK Sample

Java SDK

```
UpdateHaStrategyConditionAction action = new UpdateHaStrategyConditionAction();
action.uuid = "bf798f9ae94f3007a293f090ec555d57";
action.name = "new ha strategycondition name";
action.state = "Enable";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateHaStrategyConditionAction.Result res = action.call();
```

Python SDK

```
UpdateHaStrategyConditionAction action = UpdateHaStrategyConditionAction()
action.uuid = "bf798f9ae94f3007a293f090ec555d57"
action.name = "new ha strategycondition name"
action.state = "Enable"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
UpdateHaStrategyConditionAction.Result res = action.call()
```

8.7 Chrony Servers Operations

8.7.1 CheckNetworkReachable

API Request

URLs

```
GET zstack/v1/zops/check/network
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/zops/check/network?
sourceHostnames=172.0.0.1&targetHostnames=test1.com&targetHostnames=test2.com
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
sourceHost names	List	query	Optional. Specified set of source ip addresses or domain names .		4.7.21
targetHost names	List	query	Specified set of target ip addresses or domain names .		4.7.21
systemTags	List	query	Optional. The system tags.		4.7.21
userTags	List	query	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "results": [
    {
      "sourceHostname": "172.0.0.1",
      "targetHostname": "test2.com",
      "status": "Disconnected"
    },
    {}
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
results	List	See results .	4.7.21

#results

Name	Type	Description	Starting Version
sourceHostname	String	The source address.	4.7.21
targetHostname	String	The target address.	4.7.21
status	HostConnectedStatus	See status .	4.7.21

#status

Name	Type	Description	Starting Version
Connected	HostConnectedStatus	The network is connected.	4.7.21
Disconnected	HostConnectedStatus	The network is disconnected.	4.7.21
Unknown	HostConnectedStatus	The network status is unknown.	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

SDK Sample

Java SDK

```
CheckNetworkReachableAction action = new CheckNetworkReachableAction
();
action.sourceHostnames = asList("172.0.0.1");
action.targetHostnames = asList("test1.com", "test2.com");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
CheckNetworkReachableAction.Result res = action.call();
```

Python SDK

```
CheckNetworkReachableAction action = CheckNetworkReachableAction()
action.sourceHostnames = [172.0.0.1]
action.targetHostnames = [test1.com, test2.com]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
CheckNetworkReachableAction.Result res = action.call()
```

8.7.2 SyncChronyServers

API Request

URLs

```
PUT zstack/v1/zops/chrony/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "syncChronyServers": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"syncChronyServers":{}}'
http://localhost:8080/zstack/v1/zops/chrony/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
SyncChronyServersAction action = new SyncChronyServersAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
SyncChronyServersAction.Result res = action.call();
```

Python SDK

```
SyncChronyServersAction action = SyncChronyServersAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SyncChronyServersAction.Result res = action.call()
```

8.7.3 UpdateChronyServers

API Request

URLs

```
PUT zstack/v1/zops/chrony/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateChronyServers": {
    "internalHostnames": [
      "172.0.0.1",
      "172.0.0.2"
    ],
    "externalHostnames": [
      "test1.ntp.com"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```


}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X PUT -d '{"updateChronyServers":{"internalHostnames":
["172.0.0.1","172.0.0.2"],"externalHostnames":["test1.ntp.com"]}}'
http://localhost:8080/zstack/v1/zops/chrony/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
internalHostnames	List	body (contained in the updateChronyServers structure)	Optional. Collection of internal chrony servers.		4.7.21
externalHostnames	List	body (contained in the updateChronyServers structure)	Optional. Collection of external chrony servers.		4.7.21
systemTags	List	body	Optional. The system tags.		4.7.21
userTags	List	body	Optional. The user tags.		4.7.21

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
}
```

SDK Sample

Java SDK

```
UpdateChronyServersAction action = new UpdateChronyServersAction();
action.internalHostnames = asList("172.0.0.1", "172.0.0.2");
action.externalHostnames = asList("test1.ntp.com");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateChronyServersAction.Result res = action.call();
```

Python SDK

```
UpdateChronyServersAction action = UpdateChronyServersAction()
action.internalHostnames = [172.0.0.1, 172.0.0.2]
action.externalHostnames = [test1.ntp.com]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateChronyServersAction.Result res = action.call()
```

8.7.4 GetChronyServers

API Request

URLs

```
GET zstack/v1/zops/chrony/servers
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8"
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c"
-X GET http://localhost:8080/zstack/v1/zops/chrony/servers?
```

Request Parameters

名字	类型	位置	描述	可选值	起始版本
systemTags	List	query	Optional. The system tags.		4.7.21
userTags	List	query	Optional. The user tags.		4.7.21

API Response

Response Sample

```
{
  "servers": [
    {
      "internal": {
        "hostname": "172.0.0.1",
        "status": "Connected"
      },
      "external": {
        "hostname": "ntp.test.com",
        "status": "Connected"
      }
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.21
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.21
servers	List	See servers .	4.7.21

#servers

Name	Type	Description	Starting Version
internal	ChronyServerInfo	See internal .	4.7.21
external	ChronyServerInfo	See external .	4.7.21

#internal

Name	Type	Description	Starting Version
hostname	String	Address.	4.7.21
status	HostConnectedStatus	See status .	4.7.21

#status

Name	Type	Description	Starting Version
Connected	HostConnectedStatus	The network is connected.	4.7.21
Disconnected	HostConnectedStatus	The network is disconnected.	4.7.21
Unknown	HostConnectedStatus	The network status is unknown.	4.7.21

#external

Name	Type	Description	Starting Version
hostname	String	Address.	4.7.21
status	HostConnectedStatus	See status .	4.7.21

#status

Name	Type	Description	Starting Version
Connected	HostConnectedStatus	The network is connected.	4.7.21
Disconnected	HostConnectedStatus	The network is disconnected.	4.7.21
Unknown	HostConnectedStatus	The network status is unknown.	4.7.21

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.21
description	String	The brief description of the error.	4.7.21
details	String	The details about the error.	4.7.21

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	4.7.21
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.21
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.21

SDK Sample

Java SDK

```
GetChronyServersAction action = new GetChronyServersAction();  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
GetChronyServersAction.Result res = action.call();
```

Python SDK

```
GetChronyServersAction action = GetChronyServersAction()  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
GetChronyServersAction.Result res = action.call()
```

9 System Global Type

9.1 Management Node Operations

9.1.1 QueryManagementNode

API Request

URLs

```
GET zstack/v1/management-nodes
GET zstack/v1/management-nodes/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth f5db0d0f90104a79b02c8f1c34dfc13b" \
-X GET http://localhost:8080/zstack/v1/management-nodes?
q=uuid=2c0761c3720f4d2c93435f1b8edb1297
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 5ffa91907f3c4d0392d7daa73b1a0627" \
-X GET http://localhost:8080/zstack/v1/management-nodes/
bc27558979364d7c9b34a7317965e0be
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryManagementNode**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "188b2c6376c34d3687c5a7a19685ffa6",
      "hostName": "127.0.0.1",
      "joinDate": "May 11, 2017 1:22:44 PM",
      "heartBeat": "May 11, 2017 1:22:44 PM"
    }
  ]
}
```

}

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
hostName	String	The hostname.	0.6

Name	Type	Description	Starting Version
joinDate	Timestamp	The joining date.	0.6
heartBeat	Timestamp	The heartbeat time.	0.6

SDK Sample

Java SDK

```
QueryManagementNodeAction action = new QueryManagementNodeAction();
action.conditions = asList("uuid=7c2075262bb44872b6ceaef5ee94b089");
action.sessionId = "293267e661d8400ca3808ff5f445a6e8";
QueryManagementNodeAction.Result res = action.call();
```

Python SDK

```
QueryManagementNodeAction action = QueryManagementNodeAction()
action.conditions = ["uuid=3bcbd030e10746eeba9f8ea938f2647a"]
action.sessionId = "21526cb97ac541b6b27192b4c671ec08"
QueryManagementNodeAction.Result res = action.call()
```

9.1.2 GetVersion

API Request

URLs

```
PUT zstack/v1/management-nodes/actions
```

Body

```
{
  "getVersion": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-X PUT -d '{"getVersion":{}}' http://localhost:8080/zstack/v1/
management-nodes/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "version": "1.9.x"
}
```

Name	Type	Description	Starting Version
version	String	The current version of the management node.	0.6
success	boolean	Whether the API succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6

Name	Type	Description	Starting Version
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetVersionAction action = new GetVersionAction();
GetVersionAction.Result res = action.call();
```

Python SDK

```
GetVersionAction action = GetVersionAction()
GetVersionAction.Result res = action.call()
```

9.1.3 GetCurrentTime

API Request

URLs

```
PUT zstack/v1/management-nodes/actions
```

Body

```
{
  "getCurrentTime": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-X PUT -d '{"currentTime":{}}' http://localhost:8080/zstack/v1/management-nodes/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "currentTime": {
    "MillionSeconds": 1.494480176967E12,
    "Seconds": 1.494480176E9
  }
}
```

Name	Type	Description	Starting Version
currentTime	Map	The current time of the management node.	0.6
success	boolean	Whether the API succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetCurrentTimeAction action = new GetCurrentTimeAction();
GetCurrentTimeAction.Result res = action.call();
```

Python SDK

```
GetCurrentTimeAction action = GetCurrentTimeAction()
GetCurrentTimeAction.Result res = action.call()
```

9.1.4 GetPlatformTimeZone

API Request

URLs

```
GET zstack/v1/management-nodes/platform-timezone
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
```

```
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" -X GET
http://localhost:8080/zstack/v1/management-nodes/platform-timezone?
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	body	Optional. The system tags.		4.1.0
userTags	List	body	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "timezone": "Asia/Shanghai",
  "offset": "+8:00"
}
```

Name	Type	Description	Starting Version
timezone	String	The time zone.	4.1.0
offset	String	The time difference with GMT	4.1.0
success	boolean		4.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

SDK Sample

Java SDK

```
GetPlatformTimeZoneAction action = new GetPlatformTimeZoneAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetPlatformTimeZoneAction.Result res = action.call();
```

Python SDK

```
GetPlatformTimeZoneAction action = GetPlatformTimeZoneAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetPlatformTimeZoneAction.Result res = action.call()
```

9.1.5 IsReadyToGo

API Request

URLs

```
GET zstack/v1/management-nodes/ready
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 61f9cb0129d749ebbd3d6052bfc759b2" \
```

```
-X GET http://localhost:8080/zstack/v1/management-nodes/ready?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
managementNodeId	String	query	Optional.		0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "managementNodeId": "28ff5884cbf83d48b2e50203a5f2e636"
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
IsReadyToGoAction action = new IsReadyToGoAction();
action.sessionId = "4feaf1772217415a876735801e468fac";
IsReadyToGoAction.Result res = action.call();
```

Python SDK

```
IsReadyToGoAction action = IsReadyToGoAction()
action.sessionId = "432b9a5c589c4c09b33b79d8272528be"
IsReadyToGoAction.Result res = action.call()
```

9.1.6 GetManagementNodeOS

API Request

URLs

```
PUT zstack/v1/management/actions
```

Body

```
{
  "getManagementNodeOS": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-X PUT -d '{"getManagementNodeOS:{}}' http://localhost:8080/zstack/
v1/management/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.1.0
userTags	List	query	Optional. The user tags.		4.1.0

API Response

Sample Response:

```
{
  "name": "Linux",
  "version": "5.4.0-33-generic"
}
```

Name	Type	Description	Starting Version
name	String	The resource name.	4.1.0
version	String		4.1.0
success	boolean		4.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0

Name	Type	Description	Starting Version
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

SDK Sample

Java SDK

```
GetManagementNodeOSAction action = new GetManagementNodeOSAction();  
GetManagementNodeOSAction.Result res = action.call();
```

Python SDK

```
GetManagementNodeOSAction action = GetManagementNodeOSAction()  
GetManagementNodeOSAction.Result res = action.call()
```

9.1.7 GetManagementNodeArch

API Request

URLs

```
PUT zstack/v1/management-nodes/actions
```

Body

```
{  
  "getManagementNodeArch": {},  
  "systemTags": [],  
  "userTags": []  
}
```

}

**Note:**

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-X PUT -d '{"getManagementNodeArch":{}}' http://localhost:8080/zstack/
v1/management-nodes/actions
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.1.0
userTags	List	query	Optional. The user tags.		4.1.0

API Response**Sample Response:**

```
{
  "architecture": "x86_64"
}
```

Name	Type	Description	Starting Version
name	String	The resource name.	4.1.0
version	String		4.1.0
success	boolean		4.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.1.0

SDK Sample

Java SDK

```
GetManagementNodeArchAction action = new GetManagementNodeArchAction();
GetManagementNodeArchAction.Result res = action.call();
```

Python SDK

```
GetManagementNodeArchAction action = GetManagementNodeArchAction()
```

```
GetManagementNodeArchAction.Result res = action.call()
```

9.2 Progress Bar Operations

9.2.1 GetTaskProgress

API Request

URLs

```
GET zstack/v1/task-progresses/{apiId}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 8679db834cfc4b3b93fcbf8521581eff" \
-X GET http://localhost:8080/zstack/v1/task-progresses/7b016e3d2b4647e9abe3183728f77e57?all=false
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
apild	String	url	Optional. The API ID corresponded by the task.		1.11
all	boolean	query	Optional. Obtains all the progress information.		1.11
systemTags	List	query	Optional. The system tags.		1.11
userTags	List	query	Optional. The user tags.		1.11

API Response

Sample Response

```
{
  "inventories": [
```

```
{
  "taskUuid": "931102503f64436ea649939ff3957406",
  "taskName": "org.zstack.header.vm.APICreateVmInstanceMsg",
  "type": "Task",
  "content": "Choose backup storage for downloading the image",
  "time": 1.510669257141E12
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
taskUuid	String		0.6
taskName	String		0.6
parentUuid	String		0.6
type	String		0.6
content	String		0.6
opaque	LinkedHashMap		0.6
time	Long		0.6
totalSteps	Integer		0.6
currentStep	Integer		0.6
subTasks	List	See subTasks.	0.6

SDK Sample

Java SDK

```
GetTaskProgressAction action = new GetTaskProgressAction();
action.apiId = "00c035b586634edeb3bfb21f17e02b40";
action.all = false;
action.sessionId = "dea874a205c04a838e46ff6f48294add";
GetTaskProgressAction.Result res = action.call();
```

Python SDK

```
GetTaskProgressAction action = GetTaskProgressAction()
action.apiId = "82f5efb211394297b1d6a4f8d5e5618e"
action.all = false
action.sessionId = "2100b95ab4064c81acc5db473b2a1ef6"
```

```
GetTaskProgressAction.Result res = action.call()
```

9.3 Available Resource Query Operations

9.3.1 GetCpuMemoryCapacity

API Request

URLs

```
GET zstack/v1/hosts/capacities/cpu-memory
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/hosts/capacities/cpu-memory?
zoneUuids=6510dcd4e77939d695b035ecbcfb217c&zoneUuids=33a39cd9391538a4a4d45666e856
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
zoneUuids	List	query	Optional. The zone UUID list.		0.6
clusterUuids	List	query	Optional. The cluster UUID list used for attaching the network and the storage.		0.6
hostUuids	List	query	Optional. The host UUID list used for adding and deleting the host.		0.6
all	boolean	query	Optional. Default value: false.		0.6

Name	Type	Location	Description	Optional Value	Starting Version
			- When false, at least one of the zone UUID, cluster UUID, or host UUID is required, or all are required. - When true, the zone UUID, cluster UUID, and host UUID are all optional.		
hypervisorType	String	query	Optional. The hypervisor type.	- KVM - ESC	0.6
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "totalCpu": 4.0,
  "availableCpu": 2.0,
  "totalMemory": 8.0,
  "availableMemory": 4.0,
  "managedCpuNum": 4.0,
  "capacityData": [
    {
      "resourceUuid": "db558260b0b53e36aa8ebf7e40c7c9c6",
      "totalCpu": 4.0,
      "availableCpu": 2.0,
      "totalMemory": 8.0,
      "availableMemory": 4.0,
      "managedCpuNum": 4.0
    }
  ]
}
```

```

    }
  ],
  "resourceType": "HostV0"
}

```

Name	Type	Description	Starting Version
totalCpu	long	The total CPU count.	0.6
availableCpu	long	The available CPU count.	0.6
totalMemory	long	The total memory.	0.6
availableMemory	long	The available memory.	0.6
managedCpuNum	long	The number of managed host CPUs.	2.5.0
resourceType	String	The type of queried resources, such as the host, cluster, and zone.	3.9.0
success	boolean	Whether the API succeeds.	0.6
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
capacityData	List	See capacityData .	3.9.0
error	ErrorCode	See error .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#capacityData

Name	Type	Description	Starting Version
resourceUuid	String	The resource UUID.	3.9.0
totalCpu	long	The total CPU count.	3.9.0
availableCpu	long	The available CPU count.	3.9.0
totalMemory	long	The total memory.	3.9.0
availableMemory	long	The available memory.	3.9.0
managedCpuNum	long	The number of managed host CPUs.	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6

Name	Type	Description	Starting Version
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

SDK Sample

Java SDK

```
GetCpuMemoryCapacityAction action = new GetCpuMemoryCapacityAction();
action.zoneUuids = asList("79383afd88f54a0b994515d84dbfa447", "
907c8ca71ee440e3bb0327f19d60754a");
action.clusterUuids = asList("9f5431123b834d95ae642c3cb923ba32", "
09cdcc7e28f340ccace7c427a32e2c05");
action.hostUuids = asList("2926839176934652ac3c6a77e4ce1484", "
c1b46284d0dd4d2a8a7637f0d4792d31");
action.hypervisorType = "KVM";
action.all = true;
action.sessionId = "f3aedb623b3c47a7bb215ea3f4be90d7";
GetCpuMemoryCapacityAction.Result res = action.call();
```

Python SDK

```
GetCpuMemoryCapacityAction action = GetCpuMemoryCapacityAction()
action.zoneUuids = [28cd4ea55a72429d815205b0738b87b3, 2571613b0b
a642b7a1c99ddc17aee8e3]
action.clusterUuids = [3e9e56c96fa545fea0b759cb601aad1c, 98ec43d31a
f446a9bf290b117af95e52]
action.hostUuids = [b5cf96f88a1943f89417d6bea0715b6c, b358d13ac1
5049a581e47c76183c1358]
action.hypervisorType = "KVM"
action.all = true
action.sessionId = "b0b7e398d33d4d7893255547d0859731"
```

```
GetCpuMemoryCapacityAction.Result res = action.call()
```

9.4 Garbage Collection Operations

9.4.1 TriggerGCJob

API Request

URLs

```
PUT zstack/v1/gc-jobs/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "triggerGCJob": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"triggerGCJob":{}}' \
http://localhost:8080/zstack/v1/gc-jobs/1450275537b53cfeba9e6ac79ebadb16/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
TriggerGCJobAction action = new TriggerGCJobAction();
action.uuid = "ff4eb99f62364bcab4cbcebe4dea7de7";
action.sessionId = "7a51dbf52d5d41b0a877491143b6937a";
TriggerGCJobAction.Result res = action.call();
```

Python SDK

```
TriggerGCJobAction action = TriggerGCJobAction()
action.uuid = "a1d1ab14128e4f7398924591915ac65c"
action.sessionId = "6dcc50cb3dc5401b8ce03540a225f623"
TriggerGCJobAction.Result res = action.call()
```

9.4.2 DeleteGCJob

API Request

URLs

```
DELETE zstack/v1/gc-jobs/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth ea06449412a24699955ea802430000f3" \
-X DELETE http://localhost:8080/zstack/v1/gc-jobs/3a5d968dd8d743c280888a4973ea71d5
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure `{}` is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
DeleteGCJobAction action = new DeleteGCJobAction();
action.uuid = "6bac0ebceac44a198609b0019c40a8eb";
action.sessionId = "78e46c7bfe0249fe9613223642222085";
DeleteGCJobAction.Result res = action.call();
```

Python SDK

```
DeleteGCJobAction action = DeleteGCJobAction()
action.uuid = "42db77385ebf4768bf105011ec8e6aaf"
action.sessionId = "331167c4de264088862128e5043c5a93"
DeleteGCJobAction.Result res = action.call()
```

9.4.3 QueryGCJob

API Request

URLs

```
GET zstack/v1/gc-jobs
```

```
GET zstack/v1/gc-jobs/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 8a590138fd064e5b8747e9fa75dd6c63" \
-X GET http://localhost:8080/zstack/v1/gc-jobs?
q=name=gc&q=state=Enabled
```

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth 68ab95870cb4460fb9c82360f9ed64b2" \
-X GET http://localhost:8080/zstack/v1/gc-jobs/
b41ea820e0bd47d5a028ddb3eb10bb98
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryGCJob**, and pressing the Tab key.

API Response

Sample Response

```
{
  "inventories": [
    {
      "uuid": "c7606f2ed20b4212aa3d1ce4e00acc1c",
      "name": "TestGC",
      "type": "TimeBased",
      "createDate": "Jun 7, 2017 9:21:16 PM",
      "lastOpDate": "Jun 7, 2017 9:21:16 PM"
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventories	List	See inventories .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	0.6
name	String	The resource name.	0.6
runnerClass	String		0.6
context	String		0.6
status	String		0.6
management NodeUuid	String		0.6
type	String		0.6
createDate	Timestamp	The creation date.	0.6
lastOpDate	Timestamp	The last operation date.	0.6

SDK Sample

Java SDK

```
QueryGCJobAction action = new QueryGCJobAction();
action.conditions = asList("name=gc", "state=Enabled");
action.sessionId = "3b403b588a96471cbee74a19d4a846aa";
QueryGCJobAction.Result res = action.call();
```

Python SDK

```
QueryGCJobAction action = QueryGCJobAction()
action.conditions = ["name=gc", "state=Enabled"]
action.sessionId = "76af9b84c87f4dcf9aa8f9042a982a6b"
QueryGCJobAction.Result res = action.call()
```

9.5 License Operations

9.5.1 GetLicenseInfo

API Request

URLs

```
GET zstack/v1/licenses
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-X GET http://localhost:8080/zstack/v1/licenses?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
additionSession	String	query	Optional. The additional information. The value is a JSON-formatted string.		4.1.0
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

- ZStack Cloud allows you to obtain the ID of the Cloud by adding the **platformId** option to **SystemTags**.
 - Format of the **platformId** option: `platformId::{%s}`. {%s} represents the first 10 digits of the md5 value calculated using the request key of the Cloud.
 - Example: `platformId::a95d3ee34r`

API Response

Sample Response

```
{
  "inventory": {
    "licenseType": "Free",
    "licenseRequest": "example request",
    "issuedDate": "2017-01-19 14:31:06",
    "user": "example",
    "hostNum": 10.0,
    "expired": true,
    "managementNodeUuid": "00898b3538e53e70bb7521e54ff80276"
  },
  "additions": []
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LicenseInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	0.6
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6

Name	Type	Description	Starting Version
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
licenseType	String		0.6
licenseRequest	String		0.6
expiredDate	String		0.6
issuedDate	String		0.6
user	String		0.6
prodInfo	String	The license product name.	4.1.0
hostNum	Integer		0.6
cpuNum	Integer		0.6
availableHostNum	Integer		0.6
availableCpuNum	Integer		0.6
expired	boolean		0.6

SDK Sample

Java SDK

```
GetLicenseInfoAction action = new GetLicenseInfoAction();
GetLicenseInfoAction.Result res = action.call();
```

Python SDK

```
GetLicenseInfoAction action = GetLicenseInfoAction()
```

```
GetLicenseInfoAction.Result res = action.call()
```

9.5.2 GetLicenseRecords

API Request

URLs

```
GET zstack/v1/licenses/records
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-X GET http://localhost:8080/zstack/v1/licenses/records?
limit=20.0&start=0.0&replyWithCount=true&count=false&sortBy=uploadDate&sortDirect
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
limit	Integer	query	Optional. The maximum number of records that cab be retrieved . Default: 20. This parameter is similar to the limit parameter in MySQL.		4.1.0
start	Integer	query	Optional. The position to start a query. You need to set this parameter if you specify thelimit parameter. This parameter is similar to		4.1.0

Name	Type	Location	Description	Valid Value	Starting Version
			the offset parameter in MySQL.		
replyWithCount	boolean	query	Optional. Specifies whether to return the number of records. If you set the value to true , the number of records are returned.		4.1.0
count	boolean	query	Optional. Specifies whether to count the number of records that meet the specified conditions. This parameter is similar to the count() function. If you set the value to true , the number of records that meet the specified conditions is calculated and returned.		4.1.0
sortBy	String	query	Optional. Specifies to start records		4.1.0

Name	Type	Location	Description	Valid Value	Starting Version
			by a key, for example sortBy=ip. You need to specify the sortDirection parameter if you specify this parameter. This parameter is similar to the sort by parameter in MySQL.		
sortDirection	String	query	Optional. The sort direction. You need to set this parameter if you specify the sortBy parameter.		4.1.0
systemTags	List	query	Optional. The system tags.		4.1.0
userTags	List	query	Optional. The user tags.		4.1.0

API Response

Sample Response

```
{
  "inventories": [
    {
      "user": "example",
      "hostNum": 10.0,
      "licenseType": "Free",
      "issuedDate": "2017-01-19 14:31:06",
      "managementNodeUuid": "00898b3538e53e70bb7521e54ff80276",
      "expired": true
    }
  ]
}
```

```

    ],
    "total": 1.0
  }

```

Name	Type	Description	Starting Version
total	Long	The total number of historic license authorizations. This parameter is returned if you set count or replyWithCount to true .	4.1.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.1.0
inventory	LicenseInventory	See inventory	4.1.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	4.1.0
description	String	The brief description of the error.	4.1.0
details	String	The details about the error.	4.1.0
elaboration	String	The reserved field. Default value: null.	4.1.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.1.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error	4.1.0

Name	Type	Description	Starting Version
		exists, this parameter is null.	

#inventory

Name	Type	Description	Starting Version
uuid	String		4.1.0
licenseType	String		4.1.0
expiredDate	String		4.1.0
issuedDate	String		4.1.0
uploadDate	String	The license update time.	4.1.0
user	String		4.1.0
prodInfo	String	The license product name.	4.1.0
hostNum	Integer		4.1.0
cpuNum	Integer		4.1.0
vmNum	Integer		4.1.0
expired	boolean		4.1.0
management NodeUuid	String		4.1.0

SDK Sample

Java SDK

```

GetLicenseRecordsAction action = new GetLicenseRecordsAction();
action.limit = 20.0;
action.start = 0.0;
action.replyWithCount = true;
action.count = false;
action.sortBy = "uploadDate";
action.sortDirection = "desc";
GetLicenseRecordsAction.Result res = action.call();

```

Python SDK

```

GetLicenseRecordsAction action = GetLicenseRecordsAction()
action.limit = 20.0
action.start = 0.0
action.replyWithCount = true

```

```
action.count = false
action.sortBy = "uploadDate"
action.sortDirection = "desc"
GetLicenseRecordsAction.Result res = action.call()
```

9.5.3 GetLicenseCapabilities

API Request

URLs

```
GET zstack/v1/licenses/capabilities
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/licenses/capabilities
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		0.6
userTags	List	query	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
GetLicenseCapabilitiesAction action = new GetLicenseCapabilitiesAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetLicenseCapabilitiesAction.Result res = action.call();
```

Python SDK

```
GetLicenseCapabilitiesAction action = GetLicenseCapabilitiesAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetLicenseCapabilitiesAction.Result res = action.call()
```

9.5.4 GetLicenseUKeyStatus

API Request

URLs

```
POST zstack/v1/licenses/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {},
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{}}' http://localhost:8080/zstack/v1/licenses/
actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		
userTags	List	query	Optional. The user tags.		

API Response

Sample Response

```
{
  "inventories": [
    {
      "managementNodeUuid": "7fc6f9f3d112462fad5c60ae6bc14dd1",
      "status": "Ready",
      "keyId": "0123456789abcdef"
    }
  ]
}
```

Name	Type	Description	Starting Version
success	boolean		4.7.0
inventories	List	See inventories .	4.7.0
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	4.7.0

#inventories

Name	Type	Description	Starting Version
managementNodeUuid	String		4.7.0
keyId	String		4.7.0
status	UKeyStatus	See status .	4.7.0

#status

Name	Type	Description	Starting Version
Ready	UKeyStatus		4.7.0

Name	Type	Description	Starting Version
Missing	UKeyStatus		4.7.0
Fault	UKeyStatus		4.7.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.7.0
description	String	The brief description of the error.	4.7.0
details	String	The details about the error.	4.7.0
elaboration	String	The reserved field. Default value: null.	4.7.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.7.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.7.0

SDK Sample

Java SDK

```
GetLicenseUKeyStatusAction action = new GetLicenseUKeyStatusAction();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetLicenseUKeyStatusAction.Result res = action.call();
```

Python SDK

```
GetLicenseUKeyStatusAction action = GetLicenseUKeyStatusAction()
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetLicenseUKeyStatusAction.Result res = action.call()
```

9.5.5 DeleteLicense

API Request

URLs

```
DELETE /v1/licenses/mn/{managementNodeUuid}/actions?uuid={uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/licenses/
mn/4a1821df62404868ada349c672e79a5b/actions?
uuid=jh34g5uy4g5434i5h45ui93457348
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	Optional. The resource UUID.		0.6
managementNodeUuid	String	url	The management node UUID.		0.6
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
}
```

SDK Sample

Java SDK

```
DeleteLicenseAction action = new DeleteLicenseAction();
action.managementNodeUuid = "a762967a15a14d69833002d91119c493";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteLicenseAction.Result res = action.call();
```

Python SDK

```
DeleteLicenseAction action = DeleteLicenseAction()
action.managementNodeUuid = "32875f270bfc4bdb842ede0b42ed39a3"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteLicenseAction.Result res = action.call()
```

9.5.6 ReloadLicense

API Request

URLs

```
PUT zstack/v1/licenses/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "reloadLicense": {
    "managementNodeUuids": [
      "839034e1da8e37a08b67e3a8279a1650",
      "7869acf9b8bd34079f14a93751e60810"
    ]
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"reloadLicense":{"managementNodeUuids":
["839034e1da8e37a08b67e3a8279a1650","7869acf9b8bd34079f14a93751e60810"]}}'
\
http://localhost:8080/zstack/v1/licenses/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
managementNodeUuid	List	body (contained in the reloadLicense structure)	Optional. The management node UUID.		0.6
systemTag	List	body	Optional. The system tags.		0.6
userTag	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "licenseRequest": "eyJwcm12YXRlS2V5IjoiLS0tLS1CRUdJTiBSU0Eg
UFJJVWkFURSBURVktLS0tLVxuTUlJRWhnSUJBQUtCL0RjMGtxWGL2UmRPTGRWeC8xK1MzMU
taejNQd1dkek9ob3NvY29rU2wWdnBxYzcyZ2cHF1V1xubDNwQ0FWZ01UaG10Ulo1Z05xaVM2
Mwdvcmy4WkY3eHBGUWd1cms0WjZxVEl3aDc3emo2NEhPMHBmYnpndzFmL1xuMm9Ga3l1N2
5GU5wamxMUEpxaYva0xwL3RveGpqY0w0ZG9TcDY1TGm3a2lr0XY1aTBpeXlYZEs5dWJs
TnFNNVxuV2VNNWdFLzdzeG5IZS9TbFY1Nk1UeWtDeUdpbGVMMmwvUFlmQ2JuYUN4ZG9oOE
RzKzJ2RnpJaFZ3RwWyYkppZ1xuQkptMLU3VzNKZzltWGZeb2dDTHMyMTE4TXdDUGFQVWVM
RTArWlBBNUduL2ZxZUZad2hDMElMcN3ZTZYzThxK1xuVWpBN2RXeVoxVm50Y0xiWGUxbW
94Vm1DSWx4VWd3SURBUUFCQW9IOE1JMXRXTfkxQmhV0UhgZVpLVTRzV1hKclxuVWJXWgd5
cwtqQ2t6cXJpT0ZqYllvUEF6dS8vREU4U1BlQWZDZkppU0hUdVRkdWxZVVAZUlkakkbT
A1RVN3MVxuSXYYs01BbGRLWERMtUT3dXpLck1LbDBua1BLMkUwMDVhYW9VSVBncU0weDdQ
TXlRUMz1Vw81Nws3S2JucVNYMVxuRE1iUmJZY3FzYkldlBoNGhOK3V0bHNvb3dFM0FZQ1
FxNjkrL3NkVzhRd0V6dTRiOG9oYzFCWlJXUC9MdHhRUVxuemdXSvo4Qkw1R1BoLy9RN2xE
eGZEa1d4Nkpia0o5blEyWVJKbnBSZGhYTk1mZndValpRRG9wcmhKbi9IektSdFxeWZDc1
d5UUttsjBvMlJYVzBEcdycs9SeXJVeLc5UElseHlqSnBBSEhMeUI0UndRUUhgqGVZczVB
bjV6a0xSU1xuNGLhZFRGZFVZdi9UV0xvcVRtQ25ZNURmUWlnUTBqajNNRE0xRERmWUtKa2
szazBHShk6cjQ2WlZiawRqMEDhU1xuaXNqc3l3RERTN2wxM1BSL1ZFRVo0bDk5L2F2OFY0
bGs5ZkZVYmp5MG5sWEZzcjAzZ2NLZDBCYNlPbk84dU5MM1xuOUUpweG9GVUNqaG1HSm1WQk
1tTXFXMjN1L013Y1l5b2pnbjhdZm5wS2RTWHD2ZCtRszUycEwyWC9kQlBYcnhFU1xuT2hy
YXpVN1lPamdKM2VuWVpVRG5o0EhF0GtztRTVSk9RZDZ4enU4N2xmU1FkTEZNT29DdzFLSV
VZNTl3TFdxTVxuRE9qaXdxDdLQdjBGSnFtOVbKaHpkTmZ3dVJhSU9QbDI3WTZ5ejVRQkRr
cnIvOTdt0DB6d21KYWxhNjkwV2VPbFxuSU9jcE85ekVqUK1qL1FKK09DUGF4Y3poRDFjUH
NZbnFwMlJxQTDwUmX00TB1RkN1SUFYUDhKMDBzeGQ5WlgvTFxuYmJLa1hsQ0pjeHFES2tz
NXpXNW05ZGQvNWpCejdaS1AxT2NDeTN4RnArcGxrMULSSTZQdXRlSVlXM2kxK3RSVVxuUE
hCTUZUWHZGRFVZ003T3JLWm9ybFhkNTNZSTl0EW1blJ1aWU2TlovMUVlVzNMUmhzU1ZH
L0hBbjVrV2NOR1xuRGdhUmhiTnczZ3VTSkksWlYxMudvZkZpwmhoQjBmZjhVa1J6QjJzWF
ZxYzFYN3IveXBxATBuc0ZGbdNjUE1ZeFxuK1hSNHRhRnNSekJNSkRVWctjS2JBes80ejFL
dk5RakNNajdtM08zam9DTEtyTFFGaEdWVWVMNDU4Z3VheFQ4SVxuUmg4aXQ5d0JVQkcyMV
```



```

NuSHdhK2R1YnlgVkhYV0ZNZzdZN1VDZm1TQWlyd0V0UFVkvUJId1dwY2Q4aFlqdHU1QlXu
ZwkzajQ5R1lmV1JYand0N3LLNnJheVpldE9KekJLNGZ5Ynp1a0ZjbKf4TzRtTmxGZnI5cW
prc0tmTXBWMGVyU1xuTHYwVjhnSDRRYVZpQ0hqcDYxR1ZaeHcyaUp10UxsZmNsK2x0Wjh0
dURaNZa5MjRFWkpUY1FNN0RjQVcwY3ZKZlXudXFCNFRGYWNzbFNBTFfcdTawM2RcdTawM2
Rcbi0tLS0tRU5EIFJTQSBQUklwQVRFIetFWS0tLS0tXG4iLCJsaWNLbnNlUmVxdWVzdCI6
ImV5SjBhSFZ0WW5CewFXNTBJam9pWlhsS2FtTklwblJpTWxKc1lrTkp0a2xyYkhwa1IxWn
pTMFpKY0VsRlRuWmpiVlZ2VmtVd2NFbEhhek5NVkZFelQxUkJaMUV4UWxaSlJVRm5UWGsw
TWsxRlpFbGxhVWx6U1cxT2QyUllUV2xQYVVsNVNXbDNhVnB0UlRaWmFrazJXbTFKtMxsNl
ZUWk9la0UyVVFVSQmFV0XBTbXhrUjJoc1kybEpjMGx0YUhaak0xSjFXVmN4YkVscWIybE5W
RUYwVfVNd2VFNTZWwFJOYwxFMVNXbDNhV0pYVm5SaFZ6VnLXV2xKTmtscVRUULBSRVUxVF
hwWmFVeERTbnBsV0U0eFpGZHNhMGxxYjJsTlZwbDZUV3BUHjFKVVRyUk5ha0Y0VVRhd01G
RjZRao5NVlVWNVVrVlZkRkZxwJNsTmFsRjVUa1ZaTVZKRvKzcEphWGRwWkcXv2VXTXliSF
ppYVvrMlNXcEJkVTFUu2praUxDSndkV0pyWlhraU9pSXRmUzB0TFVKRlIwbE9JRkJWUwt4
Slf5QkxSVmt0TFMwdExWeHVUVWxKUWtoRVFVNUNaMnR4YUd0cFJ6bDNNRUUpCVVWVR1FVRl
BRMEZSYTBGTLNVbENRa0ZMUWk5RVl6QnJjVmhwZGxKa1QweGtWbmd2TVN0VE16RkxXbHh1
ZWp0UWQxZGtlazlvYjN0dlkyOXJVMnd3ZG5CeFl6YzJjSEYxVjJ3emNFTkJwbWROVkdodF
RsSmF0V2RPY1dsVE5qRm5iM0ptT0ZwR04zaHdSbEZuZlZ4dWNtczBXa1p4VkvSM2FEYzNl
bw8yTkVoUE1IQm1ZbnBuZHpGbUx6SnZSbXQ1ZFRkdVJRk9jR3BzVEZCS2NXcFdMmRNy0
M5MFZYaHFhbU5NTkdSdlUxeHVjRFkxVEdNM2EybHJPWFkxYVRccGVyBFlarXM1ZFdkC1Ru
Rk50VmRmSVFRwbLJTODNjM2h1U0dVdlUyeFd0VFp0VkhscLEzbEhhV3hsVERKc0wxQlpabH
h1UTJKdVlVtjRaRzlvT0VSekt6SjJSbnBKyuZaM1JXd3lZa3BwWjBKS2JUSlZOMWn6U21j
NWJWaG1SRzluUTB4ek1qRXhPRTEZUTFCaFVGvmxURVV3SzF4dVdsQkJOVWR1TDJXA12SAW
lRoeEsxVnFRVGRrVjNsYU1WwVkr05NwwxobE1XMXZlRlp0UTBsc2VGVM5kMGxUFVZGQlF
seHVMUzB0TFMxRlRrUWdVRlZDVEVsRElFdEZxUzB0TFMwdFhHNGlmUVx1MDAZZFx1MDAZZ
CJ9",
    "expiredDate": "2017-02-05 19:44:21",
    "issuedDate": " 2017-01-06 19:44:21",
    "user": " example@mevoco.com",
    "hostNum": 10.0,
    "expired": true
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LicenseInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
licenseType	String		0.6
licenseRequest	String		0.6
expiredDate	String		0.6
issuedDate	String		0.6
user	String		0.6
hostNum	Integer		0.6
cpuNum	Integer		0.6
availableHostNum	Integer		0.6
availableCpuNum	Integer		0.6
expired	boolean		0.6

SDK Sample

Java SDK

```
ReloadLicenseAction action = new ReloadLicenseAction();
action.managementNodeUuids = asList("839034e1da8e37a08b67e3a8279a1650",
    "7869acf9b8bd34079f14a93751e60810");
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
ReloadLicenseAction.Result res = action.call();
```

Python SDK

```
ReloadLicenseAction action = ReloadLicenseAction()
action.managementNodeUuids = [839034e1da8e37a08b67e3a8279a1650,
7869acf9b8bd34079f14a93751e60810]
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
ReloadLicenseAction.Result res = action.call()
```

9.5.7 UpdateLicense

API Request

URLs

```
PUT zstack/v1/licenses/mn/{managementNodeId}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateLicense": {
    "license": "this is license string"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateLicense":{"license":"this is license string"}}' \
http://localhost:8080/zstack/v1/licenses/mn/
f03b0d69643038f9812edbf4b259cac1/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
management NodeUuid	String	url	The management node UUID.		0.6
license	String	body (contained in the updateLicense structure)	The license content encoded in Base64 format.		0.6
additionalSession	String	body (contained in the updateLicense structure)	The additional information. The value is a JSON-formatted string.		4.1.0
systemTags	List	body	Optional. The system tags.		0.6
userTags	List	body	Optional. The user tags.		0.6

API Response

Sample Response

```
{
  "inventory": {
    "licenseRequest": "eyJwcmVudC50tLS1CRUdJTtBSU0Eg
UFJJVWkFURSBURVktLS0tLVxuTUlJRWhnSUJBQutCL0RjMGtxWGl2UmRPTGRWeC8xK1MzMU
taejNQd1dkeK9ob3NvY29rU2wwdnBxYzcyZ2cHF1V1xubDNwQ0FWZ01UaG10Ulo1Z05xaVM2
MWdvcmy4WkY3eHBGUWd1cms0WjZxVEl3aDc3emo2NEhPMHBmYnpndzFmL1xuMm9Ga3l1N2
5GQU5wamxMUepxalYva0xwL3RveGpY0w0ZG9TcdY1TGM3a2lr0XY1aTBpeXlYZEs5dWJs
TnFNNVxuV2VNNWdFLzdzeG5IZS9TbFY1Nk1UewtDeUdpbGVMMmwvUFlmQ2JuYUN4ZG9oOE
RzKzJ2RnpJaFZ3RwWyYkppZ1xuQkptMlU3VzNKZzltwGZeb2dDTHMyMTE4TXdDUGFQVWVM
RTArWlBBNUduL2ZxZUZad2hDMElMc3ZTZYThxK1xuVWpBN2RXeVoxVm50Y0xiWGUxbW
94Vm1DSWx4VWd3SURBUUFCQW9IOE1JMXRXTfkxQmhV0UhgZVplVTRzV1hKclxuVWJXWgd5
cWtqQ2t6cXJpT0ZqYllvUEF6dS8vREU4U1BlQWZDZkppU0hUdVRkdWxZVVAzZUlkakkbT
A1RVN3MVxuSXYYs01BbGRLWERMtUt3dXpLck1LbDBua1BLMkUwMDVhYW9VSVBncU0weDdQ
TXlRUMZ1VW81Nws3S2JucVNyMVxuRE1iUmJZY3FzYk1rdlBoNGhOK3V0bHNvb3dFM0FZQ1
FxNjkrL3NkVzhRd0V6dTRiOG9oYzFCWlJXUC9MdHhrUVxuemdXSVo4Qkw1R1BoLy9RN2xE
eGZEa1d4Nkpia0o5bleYVWJKbnBSZGhYTk1mZndValpRRG9wcmhKbi9IektSdFxeuWZDc1
d5UUttsjBvMlJYVzBEcdycS9SeXJVe1c5UElseHlqSnBBSEhMeUI0UndRUUhbqGVZczVB
bjV6a0xSU1xuNlghZFRGZGVZdi9UUV0xvcVRtQ25ZNURmUWlnUTBqajNNRE0xRERmWUtKa2
szazBHSkh6cjQ2WlZiaWRqMEDhU1xuaXNqc3l3RERtN2wxM1BSL1ZFRVo0bDk5L2F20FY0
bGs5ZkZVYmp5MG5sWEZzcjAzZ2NLZDBCYNlPbk84dU5MM1xu0UpweG9GVUNqaG1HSm1WQk
1tTXFXMjN1L013Y1l5b2pnbjhdZm5wS2RTWHD2ZCtRszUycEwyWC9kQlBYcnhFU1xuT2hy
YXpVN1lPamdKM2VuWVpVRG5o0EHfOGtzRTTVSk9RZDZ4enU4N2xmU1FkTEZnT29DdzFLSV
VZNTl3TFdxTVxuRE9qaXdxddLQdjBGSnFtOVBKaHpkTmZ3dVJhSU9QbDI3WTZ5ejVRQkRr
```

```

cnIv0Tdt0DB6d21KYwxhNjkwV2VPbFxuSU9jcE85ekVqUk1qL1FKK09DUGF4Y3poRDFjUH
NZbnFWMLJxQTdWUmX00TBLrKn1SUFYUDhKMDBzeGQ5WlgvTFxuYmJLa1hsQ0pjeHFES2tz
NXpXNW05ZGQvNwPceJdaS1AxT2NDeTN4RnArcGxrMULSSTZQdXRlSVLXM2kxK3RSVVxuUE
hCTUZWUHZGRFVMZ0o3T3JLWm9ybFhkNTNZSTlOWEw1bLJ1aWU2TlovMUVlVzNMUmhzU1ZH
L0hBbjVrV2NOR1xuRGdhUmhiTnczZ3VTSkksWlYxMUdvZkZpWmhoQjBmZjhVa1J6QjJzWF
ZxYzFYN3IveXBxATBuc0ZGbDNjUE1ZeFxuK1hSNHRhRnNSeKJNSkRVWctjS2JBeS80ejFL
dk5RakNNajdtM08zam9DTetyTFFGaEdwVwVMNDU4Z3VheFQ4SVxuUmg4aXQ5d0JVQkcyMV
NuSHdhK2R1YnlGVkhYV0ZNZzdZn1VDZm1TQWlyd0V0UFVkvUJId1dwY2Q4aFlqdHU1QlXu
ZwkzajQ5R1lmV1JYand0N3LLNnJheVpldE9KekJLNGZ5Ynp1a0ZjbkF4TzRtTmxGZnI5cW
prc0tmTXBWMGVyU1xuTHYwVjhnSDRRYVZpQ0hqcdYxR1ZaeHcyUp10UxsZmNsK2x0Wjh0
dURaNaZ5MjRFWkpUY1FNN0RjQVcwY3ZKZlxudXFCNFRGYWNzbFNBTFFcdTawM2RcdTawM2
Rcbi0tLS0tRU5EIFJTQSBQUklwQVRFIetFWS0tLS0tXG4iLCJsaWNLbnNlUmVxdWVzdCI6
ImV5SjBhSFZ0Ww5CewFXNTBJam9pwlhsS2FtTklwblJpTwxKc1lrTkp0a2xyYkhaW1IXwn
pTMFpKY0VsRlRuWmpiVlZ2VmtVd2NFbEhhek5NVkZFeQxUkJamUV4UWxaSlJVRm5UWGsw
TWsxRlpFbGxhVWx6U1cxT2QyUllUV2xQYVVsNVNxbDNhVnB0UlRaWmFrazJXbTFKTmxsNl
ZUWk9la0UyVfVSQmFV0XBTbXhrUjJoc1kybEpjMGx0YUhaak0xSjFXVmN4YkVscWIybE5W
RUYwVfVNd2VFNTZWwFJ0YwxFMVNXbDNhV0pYVW5SaFZ6VnLVX2xKTmtscVRUULBSRVUxVF
hwwMFVeERTbnBsV0U0eFpGZHNhMGxxYjJsTlZwbDZUV3BUHjFKVVRyUk5ha0Y0Vvhrd01G
RjZRa05NVlVWNVVrVlZkRkZxwJNsTmFsRjVUa1ZaTVZKRvKzcEphWGRwWkcXv2VXTXliSF
ppYVVRmLNxcEJkVTFUu2praUxDSndkV0pyWlhraU9pSXRmUZB0TFVKRLIwbE9JRkJWUwt4
SLF5QkxSVmt0TFMwdExWeHVUVWxKUWtoRVFVNUNaMnR4YUd0cFJ6bDNNRUpcVVVWR1FVRl
BRMEZSYTBGTLNVbENRa0ZMUWk5RVl6QnJjVmhwZGxKa1QweGtWbmd2TVN0VE16RkxXbHh1
ZWp0UWQxZGtlazlvYjN0dlkyOXJVMnd3ZG5CeFl6YzJjSEYxVjJ3emNFTkjbWbWROVkdodF
RsSmF0V2RPY1dsVE5qRm5iM0ptT0ZwR04zaHdSbEZuZfZ4dWNtczBXalp4VkvSm2FEYzNl
bw8yTkVoUE1IQm1ZbnBuZHpGbUx6SnZSbXQ1ZFRkdVJrRk9jR3BzVEZCS2NXcFdMmNRNY0
M5MFZYaHFhbU5NTkdSdlUxeHVjRFkxVEdNM2EybHJPWFkxYVRCCGVyBFlaRXM1ZFdkC1Ru
Rk50VmRsVFRWblJTODNjM2h1U0dVdlUyeFdvFpOVkhscLEzbEhhV3hsVERKc0wxQlpabH
h1UTJKdVlVtjRaRzlvT0VSekt6SjJSbnBKYUZaM1JXd3lZa3BwWjBKS2JUSlZOMWN6U21j
NWJWaG1SRzluUTB4ek1qRXhPRTEZUTFCaFVGVMxURVV3SzF4dVdsQkJOVWR1TDJXA12SAW
lRoeEsxVnFRVGRrVjNsYU1WwVnK05NWwXobE1XMXZlRlp0UTBsc2VGVM5kMGxFUVZGQlF
seHVMUZB0TFMxRlRrUwdVRlZDVEVsRElFdEZxUZB0TFMwdFhHNGlmUVx1MDAZZFx1MDAZZ
CJ9",
    "expiredDate": "2017-02-05 19:44:21",
    "issuedDate": "2017-01-06 19:44:21",
    "user": "example@mevoco.com",
    "hostNum": 10.0,
    "expired": true
  }
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	0.6
inventory	LicenseInventory	See inventory .	0.6

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code	0.6

Name	Type	Description	Starting Version
		that specifies an error . For example, SYS.1000, HOST.1001.	
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#inventory

Name	Type	Description	Starting Version
licenseType	String		0.6
licenseRequest	String		0.6
expiredDate	String		0.6
issuedDate	String		0.6
user	String		0.6
hostNum	Integer		0.6
cpuNum	Integer		0.6
availableHostNum	Integer		0.6
availableCpuNum	Integer		0.6
expired	boolean		0.6

SDK Sample

Java SDK

```
UpdateLicenseAction action = new UpdateLicenseAction();
action.managementNodeUuid = "f03b0d69643038f9812edbf4b259cac1";
action.license = "this is license string";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateLicenseAction.Result res = action.call();
```

Python SDK

```
UpdateLicenseAction action = UpdateLicenseAction()
action.managementNodeUuid = "f03b0d69643038f9812edbf4b259cac1"
action.license = "this is license string"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
UpdateLicenseAction.Result res = action.call()
```

9.5.8 PushLicenseAddOnsUsage

API Request

URLs

```
PUT zstack/v1/licenses/addons/usage
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "pushLicenseAddOnsUsage": {
    "addOnsUsage": "[{\"usage\":10,\"module\": \"CPU.Zaku\"}]"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
```

```
-X PUT -d '{"pushLicenseAddOnsUsage":{"addOnsUsage":[{"usage":10,"module":"CPU.Zaku"}]}}' http://localhost:8080/zstack/v1/licenses/addons/usage
```

Request Parameters

Name	Type	Location	Description	Valid Values	Starting Version
addOnsUsage	String	body (contained in the pushLicenseAddOnsUsage structure)	The utilization of each add-on module.		5.1.8
systemTags	List	body	Optional. The system tags.		5.1.8
userTags	List	body	Optional. The user tags.		5.1.8

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK示例

Java SDK

```
PushLicenseAddOnsUsageAction action = new PushLicenseAddOnsUsageAction();
action.addOnsUsage = "[{"usage":10,"module":"CPU.Zaku"}]";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
PushLicenseAddOnsUsageAction.Result res = action.call();
```

Python SDK

```
PushLicenseAddOnsUsageAction action = PushLicenseAddOnsUsageAction()
action.addOnsUsage = "[{"usage":10,"module":"CPU.Zaku"}]"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
PushLicenseAddOnsUsageAction.Result res = action.call()
```

9.6 Long Job Operations

9.6.1 SubmitLongJob

API Request

URLs

```
POST zstack/v1/longjobs
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "params": {
    "name": "migrate-volume",
    "description": "migrate volume to another Ceph primary storage",
    "jobName": "APIPrimaryStorageMigrateVolumeMsg",
    "jobData": "{\"volumeUuid\":\"45a53d3d93384433add8ead7616586cf\",
    \"dstPrimaryStorageUuid\":\"70a0618804864b3dabe8be9824c8028c\"}",
    "targetResourceUuid": "45a53d3d93384433add8ead7616586cf"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X POST -d '{"params":{"name":"migrate-
volume","description":"migrate volume to another Ceph primary
storage","jobName":"APIPrimaryStorageMigrateVolumeMsg","jobData":{"volumeUuid
\":\"45a53d3d93384433add8ead7616586cf\",
\"dstPrimaryStorageUuid\":\"70a0618804864b3dabe8be9824c8028c
\"},"targetResourceUuid":"45a53d3d93384433add8ead7616586cf"}}' \
http://localhost:8080/zstack/v1/longjobs
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
name	String	body (contained in the params structure)	Optional. The resource name.		2.3
description	String	body (contained in the params structure)	Optional. The detailed description of the resource.		2.3
jobName	String	body (contained in the params structure)	The job name.		2.3
jobData	String	body (contained in the params structure)	The job data.		2.3
resourceUuid	String	body (contained in the params structure)	Optional. The resource UUID.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3
targetResourceUuid	String	body (contained in the params structure)	Optional. The UUID of the target resource.		2.3

- ZStack Cloud allows you to mark a **longjob** that uploads a specific image by using the `systemTags` parameter. You can set the value of the **systemTags** parameter to **uploadImage**. The **IMAGE_ID** that you specify is generally a MD5 value.
 - The format of the option is `uploadImage : { IMAGE_ID }`.
 - For example, `uploadImage : 68b329da9893e34099c7d8ad5cb9c940`.

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "23598186b9ef35aa89fbeb8f04d497a"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventory	LongJobInventory	See inventory .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
apild	String	The API ID used to associate with the task progress.	2.3
jobName	String	The job name.	2.3
jobData	String	The job data.	2.3
jobResult	String	The job result.	2.3
targetResourceUuid	String	The target resource UUID.	2.3
managementNodeUuid	String	The management node UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
state	LongJobState	See state .	2.3

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

SDK Sample

Java SDK

```
SubmitLongJobAction action = new SubmitLongJobAction();
action.name = "migrate-volume";
action.description = "migrate volume to another Ceph primary storage";
action.jobName = "APIPrimaryStorageMigrateVolumeMsg";
action.jobData = "{\"volumeUuid\":\"45a53d3d93384433add8ead7616586cf\", \"dstPrimaryStorageUuid\":\"70a0618804864b3dabe8be9824c8028c\"}";
action.targetResourceUuid = "45a53d3d93384433add8ead7616586cf";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
```

```
SubmitLongJobAction.Result res = action.call();
```

Python SDK

```
SubmitLongJobAction action = SubmitLongJobAction()
action.name = "migrate-volume"
action.description = "migrate volume to another Ceph primary storage"
action.jobName = "APIPrimaryStorageMigrateVolumeMsg"
action.jobData = "{\"volumeUuid\":\"45a53d3d93384433add8ead7616586cf\", \"dstPrimaryStorageUuid\":\"70a0618804864b3dabe8be9824c8028c\"}"
action.targetResourceUuid = "45a53d3d93384433add8ead7616586cf"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
SubmitLongJobAction.Result res = action.call()
```

9.6.2 UpdateLongJob

API Request

URLs

```
PUT zstack/v1/longjobs/{uuid}/actions
```

Headers

```
Authorization: OAuth the-session-uuid
```

Body

```
{
  "updateLongJob": {
    "name": "new-name",
    "description": "new-description"
  },
  "systemTags": [],
  "userTags": []
}
```



Note:

In the preceding sample, both **systemTags** and **userTags** are optional. These two fields can be included in the body structure.

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X PUT -d '{"updateLongJob":{"name":"new-name","description":"new-description"}}' http://localhost:8080/zstack/v1/longjobs/dee3e1e3706f3e52a2cb9a47850508e7/actions
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		3.9.0
name	String	body (contained in the updateLong Job structure)	Optional. The resource name.		3.9.0
description	String	body (contained in the updateLong Job structure)	Optional. The detailed description of the resource.		3.9.0
systemTags	List	body	Optional. The system tags.		3.9.0
userTags	List	body	Optional. The user tags.		3.9.0

API Response

Sample Response

```
{
  "inventory": {
    "uuid": "464cdf695427358696dae171544b67ef",
    "name": "new-name",
    "description": "new-description"
  }
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.9.0
inventory	LongJobInventory	See inventory .	3.9.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	3.9.0
description	String	The brief description of the error.	3.9.0
details	String	The details about the error.	3.9.0
elaboration	String	The reserved field. Default value: null.	3.9.0
opaque	LinkedHashMap	The reserved field. Default value: null.	3.9.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	3.9.0

#inventory

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	3.9.0
name	String	The resource name.	3.9.0
description	String	The detailed description of the resource.	3.9.0
apild	String	The API ID used to associate with the task progress.	3.9.0
jobName	String	The job name.	3.9.0
jobData	String	The job data.	3.9.0
jobResult	String	The job result.	3.9.0
targetResourceUuid	String	The UUID of the target resource.	3.9.0

Name	Type	Description	Starting Version
management NodeUuid	String	The UUID of the management node.	3.9.0
createDate	Timestamp	The creation date.	3.9.0
lastOpDate	Timestamp	The last operation date.	3.9.0
state	LongJobState	See state .	3.9.0

#state

Name	Type	Description	Starting Version
Waiting	LongJobState		3.9.0
Suspended	LongJobState		3.9.0
Running	LongJobState		3.9.0
Succeeded	LongJobState		3.9.0
Canceling	LongJobState		3.9.0
Canceled	LongJobState		3.9.0
Failed	LongJobState		3.9.0

SDK Sample

Java SDK

```
UpdateLongJobAction action = new UpdateLongJobAction();
action.uuid = "dee3e1e3706f3e52a2cb9a47850508e7";
action.name = "new-name";
action.description = "new-description";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
UpdateLongJobAction.Result res = action.call();
```

Python SDK

```
UpdateLongJobAction action = UpdateLongJobAction()
action.uuid = "dee3e1e3706f3e52a2cb9a47850508e7"
action.name = "new-name"
action.description = "new-description"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```



```
UpdateLongJobAction.Result res = action.call()
```

9.6.3 DeleteLongJob

API Request

URLs

```
DELETE zstack/v1/longjobs/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X DELETE http://localhost:8080/zstack/v1/longjobs/
a87ae356c6583cc7b312412337f96609?
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
uuid	String	url	The resource UUID.		2.3
systemTags	List	body	Optional. The system tags.		2.3
userTags	List	body	Optional. The user tags.		2.3

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

```
}
```

SDK Sample

Java SDK

```
DeleteLongJobAction action = new DeleteLongJobAction();
action.uuid = "a87ae356c6583cc7b312412337f96609";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
DeleteLongJobAction.Result res = action.call();
```

Python SDK

```
DeleteLongJobAction action = DeleteLongJobAction()
action.uuid = "a87ae356c6583cc7b312412337f96609"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
DeleteLongJobAction.Result res = action.call()
```

9.6.4 QueryLongJob

API Request

URLs

```
GET zstack/v1/longjobs
GET zstack/v1/longjobs/{uuid}
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/longjobs
```

```
curl -H "Content-Type: application/json; charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/longjobs/
f031e4ea64673a5f96e022f4eb81fc59
```

Queryable Fields

You can check all queryable fields and resource names that can be queried across tables by using `zstack-cli`, entering **QueryLongJob**, and pressing the Tab key.

API Response

Sample Response

```
{
```

```

"inventories": [
  {
    "uuid": "e8a3fcaa8c393684b78a6dc1b20db49f"
  }
]
}

```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	2.3
inventories	List	See inventories .	2.3

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	2.3
description	String	The brief description of the error.	2.3
details	String	The details about the error.	2.3
elaboration	String	The reserved field. Default value: null.	2.3
opaque	LinkedHashMap	The reserved field. Default value: null.	2.3
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	2.3

#inventories

Name	Type	Description	Starting Version
uuid	String	The resource UUID.	2.3
name	String	The resource name.	2.3
description	String	The detailed description of the resource.	2.3
apild	String	The API ID used to associate with the task progress.	2.3
jobName	String	The job name.	2.3
jobData	String	The job data.	2.3
jobResult	String	The job result.	2.3
targetResourceUuid	String	The target resource UUID.	2.3
managementNodeUuid	String	The management node UUID.	2.3
createDate	Timestamp	The creation date.	2.3
lastOpDate	Timestamp	The last operation date.	2.3
state	LongJobState	See state .	2.3

#state

Name	Type	Description	Starting Version
name	String	The resource name.	2.3
ordinal	int		2.3

SDK Sample

Java SDK

```
QueryLongJobAction action = new QueryLongJobAction();
action.conditions = asList();
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
QueryLongJobAction.Result res = action.call();
```

Python SDK

```
QueryLongJobAction action = QueryLongJobAction()
action.conditions = []
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
QueryLongJobAction.Result res = action.call()
```

9.7 System Error Code Operations

9.7.1 GetElaborations

API Request

URLs

```
GET zstack/v1/errorcode/elaborations
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \  
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \  
-X GET http://localhost:8080/zstack/v1/errorcode/elaborations?category=BS&regex=certificate has expired or is not yet valid
```

Request Parameters

Name	Type	Location	Description	Optional Value	Starting Version
category	String	query	Optional. The error code category , which is consistent with resource or service category, such as HOST.		3.3.0
regex	String	query	Optional. The error code keyword.		3.3.0
code	String	query	Optional. The error code, which is used with the error code category.		3.6.0

Name	Type	Location	Description	Optional Value	Starting Version
systemTags	List	query	Optional. The system tags.		3.3.0
userTags	List	query	Optional. The user tags.		3.3.0

API Response

Sample Response

```
{
  "contents": [
    {
      "category": "HOST",
      "code": "1003",
      "regex": "host[uuid:%s, name:%s] is in status[%s], cannot
perform required operation",
      "message_cn": "物理机正处于[停止]状态，不能进行该操作",
      "message_en": "Host is in status[Stopped], cannot perform
required operation",
      "source": "zstack",
      "method": "distance",
      "distance": 0.0
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error .	3.3.0
contents	List	See contents .	3.3.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error . For example, SYS.1000, HOST.1001.	0.6

Name	Type	Description	Starting Version
description	String	The brief description of the error.	0.6
details	String	The details about the error.	0.6
elaboration	String	The reserved field. Default value: null.	0.6
opaque	LinkedHashMap	The reserved field. Default value: null.	0.6
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	0.6

#contents

Name	Type	Description	Starting Version
category	String	The error code category.	3.3.0
code	String	The error code.	3.3.0
regex	String	The error code keyword.	3.3.0
message_cn	String	The error code message in Chinese.	3.3.0
message_en	String	The error code message in English.	3.3.0
source	String	The source of the error.	3.3.0
method	String	The matching method , including distance (string comparison) and regex (regular expression).	3.6.0
distance	Double	If you use distance to do the match, this parameter will be the	3.6.0

Name	Type	Description	Starting Version
		precision. Note: '1' is the best precision.	

SDK Sample

Java SDK

```
GetElaborationsAction action = new GetElaborationsAction();
action.category = "BS";
action.regex = "certificate has expired or is not yet valid";
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";
GetElaborationsAction.Result res = action.call();
```

Python SDK

```
GetElaborationsAction action = GetElaborationsAction()
action.category = "BS"
action.regex = "certificate has expired or is not yet valid"
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
GetElaborationsAction.Result res = action.call()
```

9.7.2 GetElaborationCategories

API Request

URLs

```
GET zstack/v1/errorcode/elaborations/categories
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/errorcode/elaborations/
categories
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.5.0

Name	Type	Location	Description	Valid Value	Starting Version
userTags	List	query	Optional. The user tags.		4.5.0

API Response

Sample Response

```
{
  "categories": [
    {
      "category": "ACCOUNT",
      "num": 5.0
    },
    {
      "category": "BS",
      "num": 3.0
    },
    {
      "category": "VM",
      "num": 20.0
    }
  ]
}
```

Name	Type	Description	Starting Version
error	ErrorCode	The error code. If not null, the operation fails, or vice versa. For more information, see error	4.5.0
categories	List	For more information, see categories	4.5.0

#error

Name	Type	Description	Starting Version
code	String	The error code, which is a numbered or alphanumeric code that specifies an error. For example, SYS.1000, HOST.1001.	4.5.0
description	String	The brief description of the error.	4.5.0

Name	Type	Description	Starting Version
details	String	The details about the error.	4.5.0
elaboration	String	The reserved field. Default value: null.	4.5.0
opaque	LinkedHashMap	The reserved field. Default value: null.	4.5.0
cause	ErrorCode	The root error, which is the associated root cause of the current error. If no root error exists, this parameter is null.	4.5.0

#categories

Name	Type	Description	Starting Version
category	String	The category name.	4.5.0
num	Integer	The count of the error codes under the category.	4.5.0

SDK示例

Java SDK

```
GetElaborationCategoriesAction action = new GetElaborationCategoriesAction();  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
GetElaborationCategoriesAction.Result res = action.call();
```

Python SDK

```
GetElaborationCategoriesAction action = GetElaborationCategoriesAction()  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"
```

```
GetElaborationCategoriesAction.Result res = action.call()
```

9.8 Search Operations

9.8.1 RefreshSearchIndexes

API Request

URLs

```
GET zstack/v1/search/indexes/refresh
```

Headers

```
Authorization: OAuth the-session-uuid
```

Curl Sample

```
curl -H "Content-Type: application/json;charset=UTF-8" \
-H "Authorization: OAuth b86c9016b4f24953a9edefb53ca0678c" \
-X GET http://localhost:8080/zstack/v1/search/indexes/refresh
```

Request Parameters

Name	Type	Location	Description	Valid Value	Starting Version
systemTags	List	query	Optional. The system tags.		4.0.0
userTags	List	query	Optional. The user tags.		4.0.0

API Response

When the API succeeded, an empty JSON structure {} is returned. When the API failed, the returned JSON structure includes an error field. For example,

```
{
  "error": {
    "code": "SYS.1001",
    "description": "A message or a operation timeout",
    "details": "Create VM on KVM timeout after 300s"
  }
}
```

SDK Sample

Java SDK

```
RefreshSearchIndexesAction action = new RefreshSearchIndexesAction();
```

```
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c";  
RefreshSearchIndexesAction.Result res = action.call();
```

Python SDK

```
RefreshSearchIndexesAction action = RefreshSearchIndexesAction()  
action.sessionId = "b86c9016b4f24953a9edefb53ca0678c"  
RefreshSearchIndexesAction.Result res = action.call()
```

Glossary

Instance

An instance is a virtual machine or server that runs the images of operating systems in Cloud, such as VM instance and elastic baremetal instance.

VM Instance

A VM instance is a virtual machine instance running on a host. A VM instance has its own IP address and can access public networks and run application services.

Volume

A volume provides storage space for a VM instance. Volumes are categorized into root volumes and data volumes.

Root Volume

A root volume provides support for the system operations of a VM instance.

Data Volume

A data volume provides extended storage space for a VM instance.

Image

An image is a template file used to create a VM instance or volume. Images are categorized into system images and volume images.

Instance Offering

An instance offering defines the number of vCPU cores, memory size, network bandwidth, and other configuration settings of VM instances.

Disk Offering

A disk offering defines the capacity and other configuration settings of volumes.

GPU Specification

A GPU specification defines the frame per second (FPS), video memory, resolution, and other configuration settings of a physical or virtual GPU. GPU specifications are categorized into physical GPU specifications and virtual GPU specifications.

vNUMA Configuration

vNUMA uses CPU pinning to passthrough the topology of associated host physical NUMA (pNUMA) nodes to a VM instance, generating a topology of virtual NUMA (vNUMA) nodes for the VM instance. This topology enables a vCPU on a vNUMA node to primarily access the local memory and thus improves VM performance.

NUMA (Non-Uniform Memory Access)

Non-uniform memory access (NUMA) is a computer memory design where the memory access time depends on the memory location relative to the CPU. Under NUMA, a processor can access its own local memory faster than non-local memory and thus improves VM performance.

pNUMA Node (physical NUMA Node)

A pNUMA node (physical NUMA node) is a host NUMA node predefined based on the host NUMA architecture. It is used to manage the CPUs and memory of the host.

pNUMA Topology (physical NUMA Topology)

A pNUMA topology (physical NUMA topology) is the topology of the host NUMA nodes predefined by the CPU vendor based on the host NUMA architecture.

vNUMA Node (virtual NUMA Node)

A vNUMA node (virtual NUMA node) is generated by passing-through associated pNUMA nodes via CPU pinning. It is used to manage the CPUs and memory of a VM instance.

vNUMA Topology (virtual NUMA Topology)

A vNUMA topology (virtual NUMA topology) is the topology of VM NUMA nodes generated by passing-through associated pNUMA nodes via CPU pinning.

Local Memory

Local memory is the memory that a CPU (pCPU or vCPU) accesses through the Uncore iMC (Integrated Memory Controller) of the same NUMA (pNUMA or vNUMA) node. Compared with accessing non-local memory, accessing local memory has lower latencies.

CPU Pinning

CPU pinning assigns the virtual CPUs (vCPUs) of a VM instance to specific physical CPUs (pCPUs) of the host, which improves VM performance.

EmulatorPin Configuration

EmulatorPin assigns all other threads than virtual CPU (vCPU) threads and IO threads of a VM instance to physical CPUs (pCPUs) of the host so that these threads run on assigned pCPUs.

Auto-Scaling Group

An auto-scaling group is a group of VM instances that are used for the same scenarios. An auto-scaling group can automatically scale out or in based on application workloads or health status of VM instances in the group.

Snapshot

A snapshot is a point-in-time capture of data status in a volume.

Affinity Group

A VM scheduling policy is a resource orchestration policy based on which VM instances are assigned hosts to achieve the high performance and high availability of businesses.

Zone

A zone is a logical group of resources such as clusters, L2 networks, and primary storage. Zone is the largest resource scope defined in the Cloud.

Cluster

A cluster is a logical group of hosts (compute nodes).

Host

A host provides compute, network, and storage resources for VM instances.

Primary Storage

A primary storage is one or more servers that store volume files of VM instances. These files include root volume snapshots, data volume snapshots, image caches, root volumes, and data volumes.

Image Storage

An image storage is a storage server that stores VM image templates, including ISO image files.

iSCSI Storage

iSCSI storage is an SAN storage that uses the iSCSI protocol for data transmission. You can add an iSCSI SAN block as a Shared Block primary storage or pass through the block to a VM instance.

FC Storage

FC storage is an SAN storage that uses the FC technology for data transmission. You can add an FC SAN block as a Shared Block primary storage or pass through the block to a VM instance.

NVMe Storage

A type of storage implemented via the NVMe-oF (NVMe over fabrics) protocol. You can add a block device configured from an NVMe storage as SharedBlock primary storage.

L2 Network

An L2 network is a layer 2 broadcast domain used for layer 2 isolation. Generally, L2 networks are identified by names of devices on the physical network.

VXLAN Pool

A VXLAN pool is a collection of VXLAN networks established based on VXLAN Tunnel Endpoints (VTEPs). The VNI of each VXLAN network in a VXLAN pool must be unique.

L3 Network

An L3 network includes IP ranges, gateway, DNS, and other network configurations that are used by VM instances.

Public Network

Generally, a public network is a logical network that is connected to the Internet. However, in an environment that has no access to the Internet, you can also create a public network.

Flat Network

A flat network is connected to the network where the host is located and has direct access to the Internet. VM instances in a flat network can access public networks by using elastic IP addresses.

VPC Network

A VPC network is a private network where VM instances can be created. A VM instance in a VPC network can access the Internet through a VPC vRouter.

Management Network

A management network is used to manage physical resources in the Cloud. For example, you can create a management network to manage access to hosts, primary storage, image storage, and VPC vRouters.

Flow Network

A flow network is a dedicated network for port mirror transmission. You can use a flow network to transmit the mirrors of data packets of NIC ports to the target ports.

VPC vRouter

A VPC vRouter is a dedicated VM instance that provides multiple network services.

VPC vRouter HA Group

A VPC vRouter HA group consists of two VPC vRouters. Either VPC vRouter can be a primary or secondary VPC vRouter for the group. If the primary VPC vRouter does not work as expected, the VPC vRouter becomes the secondary VPC vRouter in the group to ensure high availability of business.

vRouter Image

A vRouter image encapsulates network services and can be used to create VPC vRouters.

Dedicated-Performance LB Image

A dedicated-performance load balancer (LB) image encapsulates dedicated-performance load -balancing services and can be used to create load balancer instances. However, a dedicated-performance load balancer image cannot be used to create VM instances.

vRouter Offering

A vRouter offering defines the number of vCPU cores, memory size, image, management network , and public network configuration settings of VPC vRouters. You can use a vRouter offering to create VPC vRouters that can provide network services for public networks and VPC networks.

LB Instance Offering

A load balancer (LB) instance offering defines the CPU, memory, image, and management network configuration settings used to create LB instances. LB instances provide load balancing services for the public network, flat network, and VPC network.

SDN Controller

The SDN controller is the core of the SDN architecture, responsible for centralized management and control of network devices.

SDN Instance

A dedicated VM instance designed to provide SDN network capabilities.

SDN Image

An SDN image encapsulates an SDN software and can be used to create SDN instances.

SDN Instance Offering

An SDN instance offering defines the CPU, memory, SDN image, and management network configuration used for creating SDN instances.

Security Group

A security group provides security control services for VM NICs. It filters the ingress or egress TCP, UDP, and ICMP packets of VM NICs based on the specified security rules.

VIP

In bridged network environments, a virtual IP address (VIP) provides network services such as serving as an elastic IP address (EIP), port forwarding, load balancing, IPsec tunneling. When a VIP provides the preceding network services, packets are sent to the VIP and then routed to the destination network where VM instances are located.

EIP

An elastic IP address (EIP) functions based on the NAT technology. IP addresses in a private network are translated into an EIP that is in another network. This way, private networks can be accessed from other networks by using EIPs.

Port Forwarding

Port forwarding functions based on the layer-3 forwarding service of VPC vRouters. This service forwards traffic flows of the specified IP addresses and ports in a public network to specified ports of VM instances by using the specified protocol. If your public IP addresses are insufficient, you can configure port forwarding for multiple VM instances by using one public IP address and port.

Load Balancer

A load balancer distributes traffic flows of a virtual IP address to backend servers. It automatically inspects the availability of backend servers and isolates unavailable servers during traffic distribution. This way, the load balancer improves the availability and service capability of your business.

Listener

A listener monitors the frontend requests of a load balancer and distributes the requests to a backend server based on the specified policy. In addition, the listener performs health checks on backend servers.

Forwarding Rule

A forwarding rule forwards the requests from different domain names or URLs to different backend server groups.

Backend Server Group

A backend server group is a group of backend servers that handles requests distributed by load balancers. It is the basic unit for traffic distribution by load balancer instances.

Backend Server

A backend server handles requests distributed by a load balancer. You can add a VM instance on the Cloud or a server on a third-party cloud as a backend server.

Frontend Network

A frontend network is a type of network that is associated with a load balancer. Requests from the network are distributed by the load balancer to backend servers based on a specified policy.

Backend Network

A backend network is a type of network that is associated with a load balancer. Requests from frontend networks are distributed by the load balancer to servers in the backend network.

Load Balancer Instance

A load balancer instance is a custom VM instance used to provide load balancing services.

Certificate

If you select HTTPS for a listener, associate it with a certificate to make the listener take effect. You can upload either a certificate or certificate chain.

Firewall

A firewall is an access control policy that monitors ingress and egress traffic of VPC vRouters and decides whether to allow or block specific traffic based on the associated rule sets and rules.

Firewall Rule Set

A firewall rule set is a set of rules that a firewall uses to defend against network attacks. You need to associate a rule set with the egress or ingress flow direction of VPC vRouter NICs to make the rule set take effect.

Firewall Rule

A firewall rule is an access control entry associated with the egress or ingress flow direction of VPC vRouter NICs to defend against network attacks. A firewall rule includes rule priority, match condition, and behavior.

Rule Template

A rule template is a template that you can select when you add rules to a rule set or a firewall.

IP/Port Set

An IP or port set is a set of IP addresses or ports that you can select when you add rules to a rule set or a firewall.

IPsec Tunnel

An IPsec tunnel encrypts and verifies IP packets that transmit over a virtual private network (VPN) from one site to another.

OSPF Area

An Open Shortest Path First (OSPF) area is divided from an autonomous system based on the OSPF protocol. This simplifies the hierarchical management of vRouters.

NetFlow

A NetFlow monitors the ingress and egress traffic of the NICs of VPC vRouters. The supported versions of data flows are V5 and V9.

Port Mirroring

Port mirroring mirrors the traffic data of VM NICs and sends the traffic data to the target ports. This allows for the analysis of data packets of ports and simplifies the monitoring and management of data traffic and makes it easier to locate network errors and exceptions.

Route Table

A route table contains information about various routes that you configure. Route entries in a route table must include the destination network, next hop, and route priority.

CloudFormation

CloudFormation is a service that simplifies the management of cloud resources and automates deployment and O&S. You can create a stack template to configure cloud resources and their dependencies. This way, resources can be automatically configured and deployed in batches. CloudFormation provides easy management of the lifecycle of cloud resources and integrates automatic O&S into API and SDK.

Resource Stack

A resource stack is a stack of resources that are configured by using a stack template. The resources in the stack have dependencies with each other. You can manage resources in the stack by managing the resource stack.

Stack Template

A stack template is a UTF8-encoded file based on which you can create resource stacks. The stack template defines the resources that you want, the dependencies between the resources, and the configuration settings of the resources. When you use a stack template to create a resource stack, CloudFormation parses the template and the resources are automatically created and configured.

Sample Template

A sample template is a commonly used resource stack. You can use a sample template provided by the Cloud to create resource stacks.

Designer

A designer is a CloudFormation tool that allows you to orchestrate cloud resources. You can drag and drop resources on a canvas and use lines to establish dependencies between the resources.

Baremetal Cluster

A baremetal cluster consists of baremetal chassis. You can manage baremetal chassis by managing a baremetal cluster where the chassis reside.

Deployment Server

A deployment server is a server that provides PXE service and console proxy service for baremetal chassis.

Baremetal Chassis

A baremetal chassis is used to create a baremetal instance and is identified based on the BMC interface and IPMI configuration setting.

Preconfigured Template

A preconfigured template is used to create a preconfigured file that allows for unattended batch installation of an operating system for baremetal instances.

Baremetal Instance

A baremetal instance is an instantiated baremetal chassis.

Elastic Baremetal Management

Elastic Baremetal Management provides dedicated physical servers for your applications to ensure high performance and stability. In addition, this feature allows elastic scaling. You can apply for and scale resources based on your needs.

Provision Network

A provision network is a dedicated network for PXE boot and image downloads while creating elastic baremetal instances.

Elastic Baremetal Cluster

An elastic baremetal cluster consists of elastic baremetal instances. You can manage elastic baremetal instances by managing an elastic baremetal cluster where the instances reside.

Gateway Node

A gateway node is a node where the ingress and egress traffic of the Cloud and elastic baremetal instances is forwarded.

Baremetal Node

A baremetal node is used to create a baremetal instance and is identified based on the BMC interface and IPMI configuration setting.

Elastic Baremetal Instance

An elastic baremetal instance has the same performance as physical servers and allows elastic scaling. You can apply for and scale resources based on your needs.

Elastic Baremetal Offering

An elastic baremetal offering defines the number of vCPU cores, memory size, CPU architecture, CPU model, and other configuration settings of elastic baremetal instances.

vCenter

The Cloud allows you to take over vCenter and manage resources on the vCenter.

VM Instance

A VM instance is an ESXi virtual machine instance running on a host. A VM instance has its own IP address to access public networks and can run application services.

Network

A vCenter network defines the network settings of VM instances on vCenter, such as IP range, gateway, DNS, and network services.

Volume

A volume provides storage space for a VM instance on vCenter. A volume attached to a VM instance can be used as a root volume or data volume. A root volume provides support for the system operations of a VM instance. A data volume provides extended storage space for a VM instance.

Image

An image is a template file used to create a VM instance or volume on vCenter. Images are categorized into system images and volume images.

Event Message

Event Message displays event alarm messages of vCenter that is took over by the Cloud. This feature allows you to locate errors and exceptions efficiently.

Network Topology

A network topology visualizes the network architecture of the Cloud. It allows for efficient planning , management, and improvement of network architecture. Network topologies can be categorized into global topologies and custom topologies.

Performance Analysis

Performance Analysis displays the performance metrics of key resources monitored externally or internally in the Cloud. You can view the performance analysis or export the analysis report as needed to improve the O&M efficiency.

Capacity Management

Capacity Management visualizes the capacities and usages of key resources in the Cloud. You can use this feature to improve O&S efficiency.

MN Monitoring

Management Node (MN) monitoring allows you to view the health status of each management node when you use multiple management nodes to achieve high availability.

Alarm

An alarm is used to monitor the status of time-series data and events and respond to the status change. Alarms can be categorized into resource alarm, event alarm, and extended alarm.

One-Click Alarm

A one-click alarm integrates multiple metrics of a resource. You can create one-click alarms for multiple resources to monitor these resources.

Alarm Template

An alarm template is a template of alarm rules. If you associate an alarm template with a resource group, an alarm is created to monitor the resources in the group.

Resource Group

A resource group consists of resources grouped based on your business needs. If you associate an alarm template with a resource group, the alarm rules specified by the template take effect on all the resources in the group.

Message Template

A message template specifies the text template of a resource alarm message or event alarm message sent to an SNS system.

Message Source

A message source is used to take over extended alarm messages. If you configure alarms for message sources, extended alarm messages can be sent to various endpoints.

Endpoint

An endpoint is a method that users obtain subscribed messages. Endpoints are categorized into system endpoints, email, DingTalk, HTTP application, short message service, and Microsoft Teams.

Alarm Message

An alarm message is a message sent the time when an alarm is triggered.

Current Task

A current task is an ongoing operation performed in the Cloud. You can perform centralized management over ongoing operations.

Operation Log

An operation log is a chronological record of operations on the specified objects and their operation results.

Audit

Audit monitors and records all activities on the Cloud. You can use this feature to implement operation tracking, cybersecurity classified protection compliance, security analysis, troubleshooting, and automatic O&M.

Log Collection

Allows you to collect with one click the log data from the Cloud and various nodes on the Cloud generated in the specified time period and download the log data.

One-Click Inspection

Comprehensively inspects the health status of key resources and services of the Cloud and scores their healthiness based on the inspection results. In addition, the one-click inspection service provides O&M suggestions and inspection reports.

Backup Management

Backup management integrates multiple disaster recovery technologies such as incremental backup and full backup that are suitable for multiple business scenarios. You can implement local backup and remote backup based on your business needs.

Backup Job

You can create a backup job to back up local VM instances, volumes, or databases to a specified storage server on a regular basis.

Local Backup Data

Local backup data of VM instances, volumes, and databases is stored in the local backup server.

Local Backup Server

A local backup server is located at the local data center and is used to store local backup data.

Remote Backup Server

A remote backup server is located at a remote data center or a public cloud and is used to store remote backup data.

Continuous Data Protection (CDP)

Continuous Data Protection (CDP) provides second-level and fine-grained continuous backups for important business systems in VM instances, allowing users to restore VM data to a specific time state, and retrieve files without restoring the system.

CDP Task

You can create a CDP task to continuously back up your VM data to a specified backup server to achieve continuous data protection and recovery.

CDP Data

The backup data generated from continuous data protection on VM instances is stored in local backup servers.

Recovery Point

A recovery point is a data point generated during continuous data protection. A recovery point corresponds to a data record within the recovery point interval specified by the user.

Locked Recovery Point

You can lock or unlock a recovery point as needed. After a recovery point is locked, data of the recovery point will not be automatically cleared or deleted.

Recovery Task

A recovery task helps you quickly restore data by specifying a CDP task and recovery point, and allows you to view the recovery progress and logs in a more friendly way.

Cryptography Security Compliance

The Cryptography Security Compliance service provides applications with cloud security capabilities based on commercial cryptography, meeting the requirements of commercial cryptography application security assessments.

HSM Pool

An HSM pool is a logical group of hardware security modules (HSMs) and is used to provide unified cryptography services such as signature validation and encryption.

HSM

A hardware security module (HSM) is a dedicated device that encrypts, decrypts, and authenticates information by using the cryptographic technology.

Platform Cryptography Security Compliance

Enables the Cloud to meet the requirements of Cryptography Security Compliance through the cryptography capabilities provided by HSM pools.

Certificate Login

Authenticates the identity of a user by using a UKey device.

Data Protection

Protects important data on the Cloud to ensure the data confidentiality and integrity.

Scheduled Job

A scheduled job defines that a specific action be implemented at a specified time based on a scheduler.

Scheduler

A scheduler is used to schedule jobs. It is suitable for business scenarios that last for a long time.

Tag

A tag is used to mark resources. You can use a tag to search for and aggregate resources.

Migration Service

The Cloud provides V2V migration service that allows you to migrate VM instances and data from other virtualized platform to the current cloud platform.

V2V Migration

V2V Migration allows you to migrate VM instances from the VMware or KVM platform to the current cloud platform.

V2V Conversion Host

A V2V conversion host is a host in the destination cluster that you need to specify during V2V migration to cache VM instances and data when you implement V2V migration. After the VM instances and data are cached in the V2V conversion host, they are migrated to the destination primary storage.

User

A user is a natural person that constructs the most basic unit in Tenant Management.

User Group

A user group is a collection of natural persons or a collection of project members. You can use a user group to grant permissions.

Role

A role is a collection of permissions that can be granted to users. A user that assumes a role can call API operations based on the permissions specified by the role. Roles are categorized into platform roles and project roles.

Single Sign On

The Single Sign On service provided by the Cloud. It supports seamless access to SSO systems . Through the service, related users can directly log in to the Cloud and manage cloud resources. Currently, AD/LDAP/OIDC/OAuth2/CAS servers can be added.

Project

A project is a task that needs to be accomplished by specific personnel at a specified time. In Tenant Management, you can plan resources at the project granularity and allocate an independent resource pool to a project. The word **Tenant** in Tenant Management mainly refers to projects. A project is a tenant.

Project Member

A project member is a member in a project who is granted permissions on specific project resources and can use the resources to accomplish tasks. Project members include the project admin, project managers, and normal project members.

Process Management

Process management is part of ticket management that manages the processes related to the resources of projects. Processes can be categorized into default processes and custom processes .

My Approvals

In the Cloud, only the administrator and project administrators are granted approval permissions. the administrator and project administrators can approve or reject a ticket. If a ticket is approved, resources are automatically deployed and allocated to the specified project.

Bills

A bill is the expense of resources totaled at a specified time period. Billing is accurate to the second. Bills can be categorized into project bills, department bills, and account bills.

Pricing List

A pricing list is a list of unit prices of different resources. The unit price of a resource is set based on the specification and usage time of the resource.

Console Proxy

Console proxy allows you to log in to a VM instance by using the IP address of a proxy.

AccessKey Management

An AccessKey pair is a security credential that one party authorizes another party to call API operations and access its resources in the Cloud. AccessKey pairs shall be kept confidential.

IP Allowlist/Blocklist

An IP allowlist or blocklist identifies and filters IP addresses that access the Cloud. You can create an IP allowlist or blocklist to improve access control of the Cloud.

Application Center

Application Market allows you to add applications to the Cloud and then access the applications with one click. It extends the functionality of the Cloud. You can add default applications through the built-in installation package or add more applications through URLs.

Sub-Account Management

A sub-account can be created by the admin or synced from an SSO authentication system and is managed by the admin. Resources created under a sub-account are managed by the sub-account .

Theme and Appearance

You can customize the theme and appearance of the Cloud.

Email Server

If you select Email as the endpoint of an alarm, you need to set an email server. Then alarm messages are sent to the email server.

Log Server

A log server is used to collect management node logs or the platform operation logs. You can add a log server to the cloud and use the collected logs for operation trace or troubleshooting. This makes your O&M more efficient.

Global Setting

Global Setting allows you to configure settings that take effect on the whole platform.

Scenario Template

Scenario Template provides multiple templates that encapsulate scenario-based global settings . You can apply a template globally with one click based on your business needs. This improves your O&M efficiency.

HA Policy

HA Policy is a mechanism that ensures sustained and stable running of the business if VM instances are unexpectedly stopped or are errored because of errors occurring to compute, network, or storage resources associated with the VM instances. By enabling this feature, you can customize VM HA policies to ensure your business continuity and stability.

Time Management

Manages the Cloud system time and allows you to configure time servers for the Cloud. After you configure NTP time servers for the Cloud, the clock of the time servers is synced with all nodes of the Cloud.

GPU Device

A GPU device is a powerful microprocessor with high computational capabilities. You can use a GPU device to handle intricate graphics rendering and parallel computing jobs, thus improving the efficiency of businesses such as graphic production, video processing, and machine learning.

Script Library

The script library stores and manages script files centrally. By executing scripts on VM instances, you can complete complex O&M operations and automated jobs.

XML Hook

An XML Hook is a script that can flexibly insert or modify parameters in XML files of VM instances . By attaching an XML Hook to a VM instance, you can customize VM configurations and enable specialized functionalities.

Container Service

A simple and user-friendly container management service, providing features like GPU management & scheduling, multi-tenancy, multi-cluster, quota configuration, CI/CD. and microservice. The service reduces the container using complexity and aligns well with traditional

user's habits, helping you easily manage and deploy your container cluster, and enjoy the benefits of cloud-native technologies in a quick and convenient way.

Advanced Monitoring Server

An advanced monitoring server is a dedicated VM instance used to receive advanced monitoring data of load balancers and other resources.

Advanced Monitoring Server Image

An advanced monitoring server image encapsulates the advanced monitoring service and can be used to create advanced monitoring server.

Advanced Monitoring Server Offering

An advanced monitoring server offering defines the CPU cores, memory size, image, management network, and public network configurations of advanced monitoring server. You can use an advanced monitoring server offering to create advanced monitoring servers.

Plugin Management

You can package extended resources or tools into standardized plugins for quick installation and integration, expanding the Cloud capabilities.