

NEXASPHERE



VIRTUALIZATION PLATFORM FOR MODERN DATA CENTERS

Secure. Flexible. Enterprise-Ready.



Modernize Virtualization. Simplify Operations.

A Software-Defined Compute, Storage & Networking Platform with a Hardware-Independent Architecture - Designed to Deliver Enterprise Virtualization, Automation, Security and Resilience without Proprietary Hardware Lock-in.

FLEXIBLE

Adapt across Infrastructure
Scenarios.

INTELLIGENT

Automate and Proactively
Monitor.

UNIFIED

Manage Resources from One
Console.

RESILIENT

Protect Workloads and Maintain
Continuity.

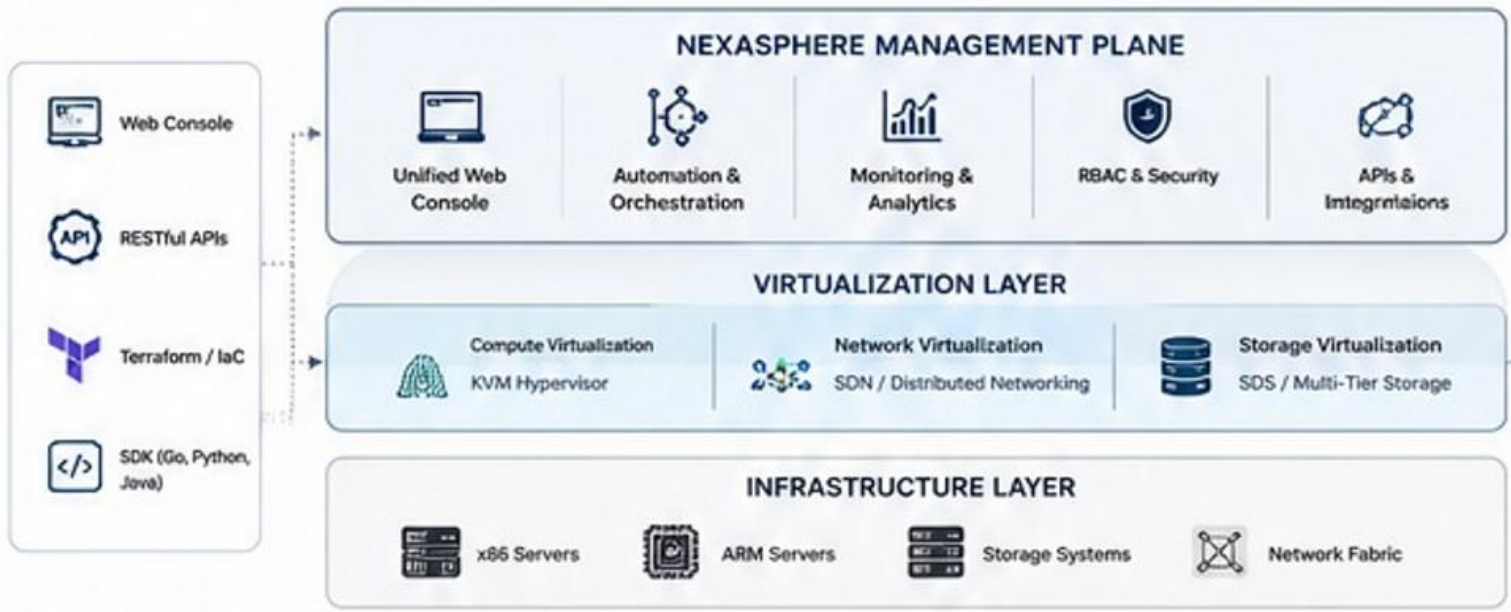
ENTERPRISE VIRTUALIZATION WITHOUT COMPROMISE

Open Architecture • Unified Management • Enterprise Resilience • Infrastructure Freedom

One Platform. Unified control.

NexaSphere manages virtual machines, networking and security across existing physical hosts without tying the environment to proprietary hardware. Its enterprise-grade design, open APIs and automation capabilities simplify complex environments while supporting performance, continuity and advanced security.

ARCHITECTURE



COMPUTE & GPU

- Optimized KVM Hypervisor with x86 / ARM Support
- Live migration, CPU/Memory controls and Nested Virtualization
- GPU passthrough, vGPU, NVIDIA MIG, GPU SR-IOV
- VMware Integration and Seamless Migration

NETWORK

- Distributed switches and port groups
- 802.1Q VLANs, DHCP/DNS and LACP
- OVS-DPDK and SR-IOV for low-latency throughput
- Distributed firewall and microsegmentation

AUTOMATION

- Public RESTful APIs for Infrastructure-as-Code
- Native Terraform providers
- SDKs for Go, Python and Java
- Kubernetes, PaaS and internal-platform integration

COMPUTE VIRTUALIZATION

- Nested Virtualization
- Live Migration (Host & Cluster)
- CPU Passthrough, Pinning, vCPU, Overcommitment, QoS
- Memory Overcommitment, Huge Pages, Hot-Plug
- SPDK, RDMA, NUMA Support
- VMware Integration & Seamless Migration
- Flexible Console: Browser, VNC, SPICE & Clipboard
- Templates, Cloning, Import/Export

NETWORK VIRTUALIZATION

- Distributed Switches & Port Groups
- 802.1Q VLAN, DHCP/DNS
- LACP & Active-Standby Aggregation
- OVS-DPDK & SR-IOV for High Performance
- Distributed Firewall, Micro-segmentation & EW Traffic Control
- Security Groups & Traffic Isolation

GRAPHIC VIRTUALIZATION

- GPU Passthrough
- vGPU & NVIDIA MIG Support
- GPU SR-IOV

RELIABILITY & RESILIENCE

- High Availability (HA) – No SPOF
- Distributed Resource Scheduling
- VM Snapshots (with Memory) & Instant Restore
- Self-Healing, Fault Detection & Auto Recovery
- Recycle Bin & Deletion Protection
- Affinity / Anti-Affinity Policies
- Native Backup with RPO as low as 15 Minutes

SECURITY & COMPLIANCE

- Secure Boot & vTPM 2.0
- Data-at-Rest Encryption
- RBAC, Custom Policies & Security Groups
- LDAP, AD, OIDC Integration
- MFA & SSO
- Audit Logs & Detailed Reporting
- Session Control, Captcha & Password Policies

OPEN ARCHITECTURE

KVM, APIs and IaC Integration

HIGH PERFORMANCE

Low-latency Compute and Networking

MIGRATION READY

Integrated VMware / Other Migration Path

Secure, Resilient and Ready to Scale.

NexaSphere combines Service Continuity, Integrated Security, Storage Flexibility and Simplified Operations to Provide a Practical Enterprise Virtualization Foundation.

RELIABILITY & SECURITY

- ◆ High Availability with no single point of failure and DRS
- ◆ Memory-inclusive VM snapshots with instant restore
- ◆ Self-healing fault detection and automatic recovery
- ◆ Native scheduled/incremental backups with RPO as low as 15 minutes
- ◆ VM Secure Boot, vTPM 2.0 and native data-at-rest encryption
- ◆ RBAC, LDAP/AD/OIDC, MFA/SSO and centralized audit logs

STORAGE & SCALE

- ◆ Three-tier architecture and HCI with Software-Defined Storage
- ◆ NFS, iSCSI, NVMe-oF, Fibre Channel and Ceph support
- ◆ Dual-controller multipathing and Boot-from-SAN
- ◆ Storage-to-storage VM data migration
- ◆ Designed to manage up to 10,000 hosts
- ◆ Elastic scalability from lab to enterprise

SIMPLIFIED OPERATIONS



- ✓ Intuitive, responsive web UI
- ✓ Single pane of glass for all resources
- ✓ Custom Alarms, Tags, Templates
- ✓ Alerts via Email, SMS, Webhook, Teams, Lark
- ✓ Reports & CSV Exports
- ✓ Integrated Migration Services

STORAGE SUPPORT



- ✓ 3-Tier Architecture with External Storage
- ✓ Dual Controller Storage Multipathing
- ✓ Boot from SAN for Blade & Chassis
- ✓ HCI & SDS Support
- ✓ NFS, iSCSI, NVMe-oF, FC, Ceph Support
- ✓ Storage to Storage VM Data Migration

EXPANSION & SMART MANAGEMENT



- ✓ Build to Manage up to 10,000 Hosts
- ✓ Elastic Scalability from Lab to Enterprise
- ✓ Proactive Monitoring of Performance, Capacity, and Service
- ✓ Automated Provisioning, Migration & Scheduling

SIMPLIFIED OPERATIONS

- ◆ Single Pane of Glass Management for Datacenters, Clusters, Hosts, VMs and Storage
- ◆ Custom Alarms, Tags, Templates and Multi-channel Notifications
- ◆ Monitoring, Reports and Integrated Migration Services

A PRACTICAL PATH FROM VMWARE

VMware Integration, Migration Services and a familiar Web UI Management Experience help Organizations transition Virtualized Workloads into NexaSphere.

OPEN

Hardware-Independent Architecture

SECURE

Integrated Enterprise Controls

SCALABLE

Designed for up to 10,000 hosts

MIGRATION-READY

VMware Integration & Migration

THE SMARTER WAY TO VIRTUALIZE.

NEXASPHERE

POWERFUL. SECURE. FLEXIBLE. RELIABLE.