

VMware vSphere Version Comparison

Across versions

| KEY FEATURES/ CAPABILITIES | VMWARE vSPHERE® VERSION | | |
|---|-------------------------|-----|--------------------------|
| | 6.5 | 6.7 | 7 ¹ |
| VMWARE vSPHERE® 7 WITH VMWARE TANZU™ ² (Available through the Tanzu Basic Edition and vSphere 7 Update 1 release) | | | |
| Application focused management | | | • |
| VMware Tanzu® Kubernetes Grid™ Service for vSphere | | | • |
| vSphere Pod Service | | | Requires NSX-T currently |
| Storage Service | | | • |
| Network Service | | | • |
| Registry Service | | | Requires NSX-T currently |
| Network Load Balancing | | | • |
| VM Service | | | • |
| VM Service support for GPU | | | • |
| GPU accelerated VMware Tanzu® Kubernetes Grid™ cluster | | | • |

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|---|-----|-----|----------------|
| VM MOBILITY AND MANAGEMENT | | | |
| vSphere vMotion® | • | • | • |
| vSphere Storage vMotion® | • | • | • |
| Content library | • | • | • |
| Cross-vSwitch vMotion | • | • | • |
| Cross-vCenter® vMotion ³ | • | • | • |
| Long-distance vMotion | • | • | • |
| Cross-cloud vMotion/ hot migration ⁴ | • | • | • |
| Cross-vCenter mixed- version vMotion ⁴ | • | • | • |
| Cross-cloud cold migration ⁴ | • | • | • |
| Per-virtual machine (VM) enhanced vMotion compatibility | | • | • |
| vMotion for Multi- Instance GPUs (MIG) | | | • |

| KEY FEATURES/ CAPABILITIES | 6.5 | 6.7 | 7 ¹ |
|--|--------|--------|----------------|
| RESOURCE MANAGEMENT | | | |
| vSphere Distributed Resource Scheduler™ (DRS) – for compute and memory | • | • | • |
| vSphere Enhanced DRS | | | • |
| vSphere Storage DRS™ | • | • | • |
| vSphere Storage I/O Control | • | • | • |
| vSphere Network I/O Control | • | • | • |
| Network-aware DRS | | • | • |
| Assignable hardware support for vGPU and vSphere DirectPath I/O™ initial placement | | | • |
| Initial workload placement for Multi-Instance GPUs (MIG) | | | • |
| AVAILABILITY | | | |
| Fault tolerance | 4 vCPU | 8 vCPU | 8 vCPU |
| vSphere Replication™ | • | • | • |
| High availability (HA) VM component protection | • | • | • |
| Orchestrated HA restart | • | • | • |
| Proactive HA | • | • | • |
| vCenter Server® HA ³ | • | • | • |
| vSphere HA for PMEM workloads | | | • |

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|---|-----|-----|----------------|
| STORAGE | | | |
| vSphere Virtual Volumes™ | • | • | • |
| Storage policy-based management | • | • | • |
| NFS 4.1 support | • | • | • |
| Automated UNMAP | • | • | • |
| Support for 4K native storage | | • | • |
| SECURITY | | | |
| Multifactor authentication | • | • | • |
| vSphere security hardening and compliance | • | • | • |
| VM encryption | • | • | • |
| Secure boot | • | • | • |
| Audit quality logging | • | • | • |
| Cross-vCenter encrypted vMotion | | • | • |
| Support for TPM 2.0 | | • | • |
| Virtual TPM 2.0 | | • | • |
| Support for Microsoft virtualization-based security (VBS), including Credential Guard | | • | • |
| FIPS 140-2 validated | | • | • |
| vSphere Trust Authority™ | | | • |
| Identity federation with Active Directory Federation Services | | | • |
| vSphere Native Key Provider | | | • |
| Confidential containers with AMD SEV-ES | | | • |
| Simplified NSX security setup from vSphere Client * | | | • |

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|---|-----|--------------------------------|--------------------------------|
| ENHANCED APPLICATION SUPPORT | | | |
| VMware Instant Clone | • | • | • |
| NVIDIA vGPU | • | • | • |
| vSphere Integrated OpenStack | • | • | • |
| vSphere Integrated Containers™ | • | • | • |
| vMotion support for NVIDIA vGPU | | • | • |
| vSphere Persistent Memory™ | | • | • |
| Support for memory mapping for 1GB page sizes | | • | • |
| Support for RoCE v2 | | • | • |
| iSCSI extension for RDMA (iSER) | | • | • |
| Support for RDMA InfiniBand | | • | • |
| vSphere Bitfusion | | (Requires add-on) ⁴ | (Requires add-on) ⁴ |
| NVIDIA Multi-Instance GPU (MIG) | | | • |
| vMotion for Multi-Instance GPUs (MIG) | | | • |

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|---|----------------|-----|----------------|
| ADMINISTRATION | | | |
| vCenter Server Appliance™ | • | • | • |
| Enhanced Linked Mode | • | • | • |
| Certificate management | • | • | • |
| Migration to vCenter Server Appliance | • | • | • |
| vCenter Server Hybrid Linked Mode ⁵ | • | • | • |
| vCenter Server backup and restore ⁶ | • | • | • |
| HTML5-based vSphere Client | • | • | • |
| REST-based APIs for vCenter Server management | • | • | • |
| Enhanced Linked Mode for vCenter Server Appliance with Embedded Platform Services Controller™ | • ⁵ | • | • |
| Single reboot upgrades | | • | • |
| vSphere Quick Boot™ | | • | • |
| vCenter Server Appliance backup with built-in scheduler and retention ⁵ | | • | • |
| vSphere Lifecycle Manager™ | | | • |
| vCenter Server update planner | | | • |
| vCenter Server profiles | | | • |
| vSphere Ideas | | | • |
| Desired image seeding | | | • |
| ESXi suspend-to-memory | | | • |

| KEY SCALE METRICS: MAXIMUMS | 6.5 | 6.7 | 7 ¹ |
|--|-------|-------|------------------------------|
| Host per cluster | 64 | 64 | 96 (Requires vSphere 7U1) |
| VMs per cluster | 8,000 | 8,000 | 8,000 |
| Hosts per VMware vCenter Server | 2,000 | 2,000 | 2,500 |
| Powered-on VMs per vCenter Server | 25K | 25K | 30K |
| Hosts for 15 linked vCenter Servers | 5K | 5K | 15K |
| CPUs per host | 576 | 768 | 768 |
| RAM per host | 12TB | 16TB | 16TB |
| VMs per host | 1,024 | 1,024 | 1,024 |
| vCPUs per VM | 128 | 128 | 128 |
| vRAM per VM | 6TB | 6TB | 6TB |
| Non-volatile memory per host | | 1TB | 1TB |
| Non-volatile memory per VM | | 1TB | 1TB |
| Maximum vCenter Server request latency | | 200ms | 250ms |

¹ The End of General Support for vSphere 6.0 was March 12, 2020 per KB66977. To maintain your full level of support and subscription services, VMware recommends upgrading to the latest release of vSphere.

² vSphere with Tanzu is available through the Tanzu Basic edition. Pre-requirements for 'vSphere with Tanzu' capabilities are that customers already have the vSphere Enterprise plus edition, and that they have upgraded to at least vSphere 7 Update 1.

³ Compatible with vSphere 6.0, U1, U2 and U3 for vMotion between same versions. Backwards compatible with vSphere 6.0 U3+ and vSphere 6.5 U1+.

⁴ vSphere Bitfusion is available through a new add-on for all Enterprise plus customers. Visit the vSphere pricing and packaging whitepaper for more details about the add-on for vSphere Bitfusion.

⁵ Backwards compatible with vSphere 6.0 U3+ on-premises and with vSphere 6.5 on premises. Compatible with vSphere 6.5 U2+ on-premises.

⁶ For vCenter Server Appliance only.