

VMware vSphere Feature Comparison

Across versions

KEY FEATURES/ CAPABILITIES	VMWARE vSPHERE® VERSION		
	6.5	6.7	7 ¹
vSPHERE 7 WITH KUBERNETES² (AVAILABLE IN VMWARE CLOUD FOUNDATION. CALL YOUR SALES REPRESENTATIVE)			
Application-focused Management			•
VMWARE CLOUD FOUNDATION™ SERVICES – VMWARE TANZU RUNTIME SERVICES			
VMware Tanzu™ Kubernetes Grid™ Service for vSphere			•
VMWARE CLOUD FOUNDATION SERVICES – HYBRID INFRASTRUCTURE SERVICES			
vSphere Pod Service			•
Storage Service			•
Network Service			•
Registry Service			•

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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		•	•

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			•
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 ⁵	•	•	•
STORAGE			
vSphere Virtual Volumes™	•	•	•
Storage policy-based management	•	•	•
NFS 4.1 support	•	•	•
Automated UNMAP	•	•	•
Support for 4K native storage		•	•

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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			•

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ENHANCED APPLICATIONS 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		•	•

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ADMINISTRATION			
vCenter Server Appliance™	•	•	•
Enhanced Linked Mode	•	•	•
Certificate management	•	•	•
Migration to vCenter Server Appliance	•	•	•
vCenter Server Hybrid Linked Mode ⁶	•	•	•
vCenter Server backup and restore ⁵	•	•	•
HTML5-based vSphere Client	•	•	•
REST-based APIs for vCenter Server management	•	•	•
Enhanced Linked Mode for vCenter Server Appliance with Embedded Platform Services Controller™	• ⁷	•	•
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			•

KEY SCALE METRICS: MAXIMUMS	6.5	6.7	7 ¹
Host per cluster	64	64	96
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 is March 12, 2020 per KB66977. To maintain your full level of support and subscription services, VMware recommends upgrading to the newly released vSphere 7 version.

2 vSphere with Kubernetes add-on is available as part of VMware Cloud Foundation™. For more details on buying vSphere with Kubernetes, please call your sales representative and visit VMware Cloud Foundation on vmware.com.

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

4 Backwards compatible with vSphere 6.0 U3+ and vSphere 6.5 U1+.

5 For vCenter Server Appliance only.

6 Backwards compatible with vSphere 6.0 U3+ on-premises and with vSphere 6.5 on-premises.

7 Compatible with vSphere 6.5 U2+ on-premises.