

# VMware vSphere® Version Comparison

KEY FEATURES/ CAPABILITIES	VMWARE vSPHERE® VERSION			
	6.5	6.7	7	8
VMWARE vSPHERE® WITH VMWARE TANZU™ <sup>2</sup> (Available with vSphere 7 Update 1 release, or vSphere+)				
Application focused management			✓	✓
VMware Tanzu® Kubernetes Grid™ Service for vSphere			✓	✓
vSphere Pod Service			Requires NSX-T currently	Requires NSX-T currently
Storage Service			✓	✓
Network Service			✓	✓
Container Registry Service			✓	✓
VM Registry service			✓	✓
Network Load Balancing			✓ NSX Advanced Load Balancer Essentials included	✓ NSX Advanced Load Balancer Essentials included
VM Service			✓	✓
VM Service support for GPU			✓	✓
GPU accelerated VMware Tanzu® Kubernetes Grid™ cluster			✓	✓
vSphere+ Developer Services			✓	✓
Cloud Consumption Interface				✓
Workload Availability Zones				✓
Simplified TKG cluster lifecycle management				✓
TKG cluster package management				✓
Customizable base OS images				✓
Authentication through Pinniped				✓

KEY FEATURES/ CAPABILITIES	6.5	6.7	7	8
<b>VM MOBILITY AND MANAGEMENT</b>				
vSphere vMotion®	✓	✓	✓	✓
vSphere Storage vMotion®	✓	✓	✓	✓
Content library	✓	✓	✓	✓
Cross-vSwitch vMotion	✓	✓	✓	✓
Cross-vCenter® vMotion <sup>3</sup>	✓	✓	✓	✓
Long-distance vMotion	✓	✓	✓	✓
Cross-cloud vMotion/ hot migration <sup>4</sup>	✓	✓	✓	✓
Cross-vCenter mixed- version vMotion <sup>4</sup>	✓	✓	✓	✓
Cross-cloud cold migration <sup>4</sup>	✓	✓	✓	✓
Per-virtual machine (VM) enhanced vMotion compatibility		✓	✓	✓
vMotion for Multi-Instance GPUs (MIG)			✓	✓
vMotion on Intel® Scalable I/O Virtualization devices (SIOV)				✓
<b>RESOURCE MANAGEMENT</b>				
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)			✓	✓
DRS support for vSphere Memory Monitoring and Remediation (vMMR)				✓
Vendor Device Groups				✓

KEY FEATURES/ CAPABILITIES	6.5	6.7	7	8
<b>AVAILABILITY</b>				
Fault tolerance	4 vCPU	8 vCPU	8 vCPU	8 vCPU
vSphere Replication™	✓	✓	✓	✓
High availability (HA) VM component protection	✓	✓	✓	✓
Orchestrated HA restart	✓	✓	✓	✓
Proactive HA	✓	✓	✓	✓
vCenter Server® HA <sup>3</sup>	✓	✓	✓	✓
vSphere HA for PMEM workloads			✓	✓
Workload Availability Zones				✓
<b>STORAGE</b>				
vSphere Virtual Volumes™	✓	✓	✓	✓
Storage policy-based management	✓	✓	✓	✓
NFS 4.1 support	✓	✓	✓	✓
Automated UNMAP	✓	✓	✓	✓
Support for 4K native storage		✓	✓	✓

KEY FEATURES/ CAPABILITIES	6.5	6.7	7	8
<b>SECURITY</b>				
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 (ADFS)			✓	✓
Identity federation with Okta and Microsoft Entra ID (formerly Azure AD)				✓
vSphere Native Key Provider			✓	✓
Confidential containers with AMD SEV-ES			✓	✓
Simplified NSX security setup from vSphere Client *			✓	✓
Identity federation with Okta				✓

\* Requires NSX-T version 3.2 or later

KEY FEATURES/ CAPABILITIES	6.5	6.7	7	8
ENHANCED PERFORMANCE AND APPLICATION SUPPORT				
VMware Instant Clone	✓	✓	✓	✓
NVIDIA vGPU	✓	✓	✓	✓
vSphere Integrated OpenStack	✓	✓	✓	✓
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		✓	✓	✓
Support for NVIDIA AI-Ready Enterprise Platform			✓	✓
NVIDIA Multi-Instance GPU (MIG)			✓	✓
vMotion for Multi-Instance GPUs (MIG)			✓	✓
DirectPath I/O support for up to 32 devices in Passthrough				✓
Increase the number of vGPUs from 4 to 8 per VM.				✓
vSphere on DPUs (VMware vSphere® Distributed Services Engine™)				✓
Support for NVIDIA NVSwitch and NVLink				✓
Heterogeneous vGPU profiles on the same GPU				✓

KEY FEATURES/ CAPABILITIES	6.5	6.7	7	8
<b>ADMINISTRATION</b>				
Enhanced Linked Mode	✓	✓	✓	✓
vCenter Server Hybrid Linked Mode <sup>5</sup>	✓	✓	✓	✓
vCenter Server backup and restore <sup>6</sup>	✓	✓	✓	✓
REST-based APIs for vCenter Server management	✓	✓	✓	✓
Enhanced Linked Mode for vCenter Server Appliance with Embedded Platform Services Controller™	✓ <sup>5</sup>	✓	✓	✓
Single reboot upgrades		✓	✓	✓
vSphere Quick Boot™		✓	✓	✓
vCenter Server Appliance backup with built-in scheduler and retention <sup>5</sup>		✓	✓	✓
vSphere Lifecycle Manager™			✓	✓
vCenter Server update planner			✓	✓
vCenter Server profiles			✓	✓
Desired image seeding			✓	✓
ESXi suspend-to-memory			✓	✓
vSphere+ Cloud Console			✓	✓
vSphere+ Admin Services			✓	✓
ESXi Lifecycle Management Service			✓	✓
vSphere Lifecycle Manager enhancements (pre-stage ESXi images)				✓
Green Metrics				✓
Configuration Profiles™				✓

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. 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.