

# VMware vSphere® Version Comparison

KEY FEATURES/ CAPABILITIES	VMWARE vSPHERE® VERSION			
	6.5	6.7	7	8
<b>DEVOPS SERVICES</b>				
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			✓	✓
Cloud Consumption Interface				✓
Local Consumption Interface (LCI)				✓
Workload Availability Zones				✓
Simplified TKG cluster lifecycle management				✓
TKG cluster package management				✓
Independent TKG Service				✓
Customizable base OS images				✓
Authentication through Pinniped				✓
Supervisor support on vSAN stretched clusters				✓
VM Service: Expanded VM Class configuration				✓
VM Service: Backup and restore service				✓
Kubernetes clusters autoscaling				✓

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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>1</sup>	✓	✓	✓	✓
Long-distance vMotion	✓	✓	✓	✓
Cross-cloud vMotion/ hot migration <sup>2</sup>	✓	✓	✓	✓
Cross-vCenter mixed- version vMotion <sup>2</sup>	✓	✓	✓	✓
Cross-cloud cold migration <sup>2</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 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)				✓
DRS automation for vGPU workloads				✓
Vendor Device Groups				✓

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<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® HA¹	✓	✓	✓	✓
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		✓	✓	✓

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<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 Microsoft Entra ID (formerly Azure AD), Okta, and PingFederate				✓
vSphere Native Key Provider			✓	✓
Confidential containers with AMD SEV-ES			✓	✓
Simplified NSX security setup from vSphere Client <sup>3</sup>			✓	✓
TLS 1.3 and Customizable Cipher Suites <sup>4</sup>				✓
vSAN security hardening and compliance				✓

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<b>ENHANCED PERFORMANCE AND APPLICATION SUPPORT</b>				
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				✓
Dual DPU support with DSE				✓

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<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>6</sup>		✓	✓	✓
vSphere Lifecycle Manager™			✓	✓
vCenter Server update planner			✓	✓
vCenter Server profiles			✓	✓
Desired image seeding			✓	✓
ESXi suspend-to-memory			✓	✓
vSphere Lifecycle Manager enhancements (pre-stage ESXi images)				✓
ESXi Live Patching				✓
Enhanced Image Customization				✓
Green Metrics				✓
Configuration Profiles™				✓

1. 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+.
2. 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.
3. Requires NSX-T version 3.2 or later
4. For more information about the use of TLS 1.3 with FIPS 140-3 requirements consult the product documentation.
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.