Recommended Configuration Maximums

vSphere 8.0
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vmware®

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This Configuration Maximums tool provides the recommended configuration limits for VMware products. When you configure, deploy and operate your virtual and physical equipment, it is highly recommended you stay within the limits supported by your product. The limits presented in the tool are tested, recommended limits, and are fully supported by VMware.

Disclaimer: The limits can be affected by other factors, such as hardware dependencies. For more information about the supported hardware, see the appropriate hardware compatibility guide. It might not be possible to maximize all configuration settings and expect your desired outcome. To ensure that you do not exceed supported configurations for your environment, consult individual solution limits. The recommended configuration limits do not represent the theoretical possibilities of your product.

Category		Limits	Description
Virtual Machine Maximums			
Compute	Virtual CPUs per virtual machine (Virtual SMP)	768	New vCPU limits supported for VM from 7.0U1 with HW version 18. 7.0GA supports only 256 vCPUs
Memory	RAM per virtual machine	24 TB	New RAM limits of 24TB is supported for VM from 7.0U1 with HW version 18. 7.0GA supports 6128 GB
Memory	Virtual machine swap file size	24 TB	New limit of 24TB is applicable from 7.0U1. In 7.0GA the limit is 6TB. VMFS3 with 1 MB block maximum swap size is 255 GB. Recommended solution is VMFS5, not VMFS3 with bigger block size
Storage Virtual Adapters and Devices	Virtual SCSI adapters per virtual machine	4	
Storage Virtual Adapters and Devices	Virtual SCSI Targets Per Virtual SCSI Adapter (PVSCSI only)	64	Limit applicable to PVSCSI only. Any combination of disk or VMDirectPath SCSI target.
Storage Virtual Adapters and Devices	Virtual SCSI Targets Per Virtual Machine (PVSCSI only)	256	Limit applicable to PVSCSI only.
Storage Virtual Adapters and Devices	Virtual NVMe adapters per virtual machine	4	
Storage Virtual Adapters and Devices	Virtual NVMe targets per virtual NVMe adapter	15	
Storage Virtual Adapters and Devices	Virtual NVMe targets per virtual machine	60	
Storage Virtual Adapters and Devices	Virtual disk size	62 TB	
Storage Virtual Adapters and Devices	IDE controllers per virtual machine	1	Supports two channels (primary and secondary) each with a master and slave device.
Storage Virtual Adapters and Devices	IDE devices per virtual machine	4	Devices can be either CD-ROM or disk.
Storage Virtual Adapters and Devices	IDE CDROM devices per virtual machine	4	
Storage Virtual Adapters and Devices	Floppy controllers per virtual machine	1	
Storage Virtual Adapters and Devices	Floppy devices per virtual machine	2	BIOS is configured for one floppy device.
Storage Virtual Adapters and Devices	Virtual SATA adapters per virtual machine	4	
Storage Virtual Adapters and Devices	Virtual SATA devices per virtual SATA adapter	30	Devices can be either CD-ROM or disk
Storage Virtual Adapters and Devices	Virtual SCSI targets per virtual SCSI adapter	15	For SCSI adapters other than PVSCSI. Any combination of disk or VMDirectPath SCSI target.
Storage Virtual Adapters and Devices	Virtual SCSI targets per virtual machine	60	For SCSI adapters other than PVSCSI.
Networking Virtual Devices	Virtual NICs per virtual machine	10	Any combination of supported virtual NICs
Networking Virtual Devices	Virtual RDMA Adapters per Virtual Machine	1	

Category		Limits	Description
Virtual Peripheral Ports	USB host controllers per virtual machine	1	USB 1.x, 2.x and 3.x supported. One USB host controller of each version 1.x, 2.x, or 3.x can be added at the same time.
Virtual Peripheral Ports	USB devices connected to a virtual machine	20	Guest operating systems might have lower limits than allowed by vSphere.
Virtual Peripheral Ports	Parallel ports per virtual machine	3	
Virtual Peripheral Ports	Serial ports per virtual machine	32	
Miscellaneous	Concurrent remote console connections to a virtual machine	40	
Storage Policies	Maximum number of virtual machine storage policies	1024	
Graphics video device	Video memory per virtual machine	4 GB	
Persistent Memory	Non-volatile memory per virtual machine	12 TB	Total combined memory (including volatile and non-volatile memory) can't exceed the maximum memory limit 15TB per virtual machine from 7.0U1 - Up to 12TB vNVDIMM + up to 3 vRAM. 7.0GA supports combined memory 6TB
Persistent Memory	Number of NVDIMMs per virtual machine	64	
Persistent Memory	NVDIMM controllers per VM	1	
FirstColumn	Max 10 Min 5	10	
PCI passthrough devices	Number of PCI passthrough devices per VM	64	Number of PCI passthrough devices per VM are 64 from 8.0 U1 onwards
vCenter Server Maximums - AuthN/AuthZ **SSO related scale maximums**			
vCenter Server Scalability	Maximum objects within a vSphere Domain (Users and Groups)	1000000	
vCenter Server Scalability	Maximum tolerance for time skew between PSC nodes	5 minutes	
vCenter Server Scalability	Maximum latency supported between linked vCenter Servers	150 ms	The latency numbers are for an end-to-end trip. From client to VC it is 100ms, and VC to VC it is 150ms.
vCenter Server Scalability	Maximum latency supported between vSphere client and vCenter Server	100 ms	Maximum latency supported between vSphere client & vCenter Server.
Identity Source	Maximum Active Directory or OpenLDAP Groups per User for best performance	1015	
VMCA/Certificate	Maximum number of subordinate Certificate Authority servers in the chain within VMware Certificate Authority	6	
VMCA/Certificate	Maximum cryptographic hash used for PSC Node certificate	3	
VMCA/Certificate	Maximum RSA Public Key length used for PSC Node certificate	16384	
vCenter Server Extensions : vSphere Lifecycle Manager **vSphere lifecycle manager configuration**			
Concurrent Operations	Virtual machine hardware scan per host	90	
Concurrent Operations	Virtual machine hardware upgrade per host	30	

Category		Limits	Description
Concurrent Operations	VMware VM Tools scan per ESXi host	90	VMware VM Tools scan per ESXi host with vSphere life cycle manager
Concurrent Operations	VMware VM Tools upgrade per ESXi host	30	VMware VM Tools upgrade per ESXi host with vSphere Lifecycle Manager
Concurrent Operations	VMware VM Tools scan per vCenter	200	VMware VM Tools scan per vCenter with vSphere lifecycle manager
Concurrent Operations	VMware VM Tools upgrade per vCenter	200	VMware VM Tools upgrade per vCenter with vSphere Lifecycle manager
Concurrent Operations	Virtual machine hardware scan per vCenter	200	Virtual machine hardware scan per vCenter with vSphere Life cycle manager
Concurrent Operations	Virtual machine hardware upgrade per vCenter	200	Virtual machine hardware upgrade per vCenter with vSPhere Lifecycle Manager
Concurrent Operations	ESXi baseline-managed host scan per vCenter	280	ESXi baseline-managed host scan per vCenter with vSphere Lifecycle Manager
Concurrent Operations	ESXi baseline-managed host patch remediation per vCenter	280	ESXi baseline-managed host patch remediation per vCenter with vSphere Lifecycle manager
Concurrent Operations	ESXi baseline-managed host upgrade per vCenter	280	ESXi baseline-managed host upgrade per vCenter with vSphere Lifecycle manager
Concurrent Operations	ESXi single image-managed host scan per vCenter	1000	ESXi single image-managed clustered host scan per vCenter with vSphere Lifecycle Manager
Concurrent Operations	ESXi single image-managed host remediation per vCenter	1000	ESXi single image-managed host remediation (apply) per vCenter
Concurrent Operations	vSAN hosts in a cluster managed by vLCM	64	vSAN hosts in a cluster managed by vLCM
Concurrent Operations	Non-vSAN hosts in a cluster managed by vLCM	96	Non-vSAN hosts in a cluster managed by vLCM
Concurrent Operations	Clusters managed and remediated in parallel using vLCM	64	Clusters managed and remediated in parallel using vLCM in a vCenter
vCenter Server Extensions : VMware vRealize Orchestrator			
vCenter Orchestrator Maximums	Connected vCenter Server systems	20	
vCenter Orchestrator Maximums	Connected ESXi instances	1280	
vCenter Orchestrator Maximums	Connected virtual machines	35000	15,000 per vRealize Orchestrator Cluster node.
vCenter Orchestrator Maximums	Concurrent running workflows	300	
VMware vSphere Flash Read Cache			
Flash Read Cache Maximums	Virtual flash resource per host	1	
Flash Read Cache Maximums	Maximum cache for each virtual disk	400 GB	
Flash Read Cache Maximums	Cumulative cache configured per host (for all virtual disks)	2 TB	
Flash Read Cache Maximums	Virtual disk size	16 TB	
Flash Read Cache Maximums	Virtual host swap cache size	4 TB	
Flash Read Cache Maximums	Flash devices per virtual flash resource	8	
VMware vSAN			

Category		Limits	Description
vSAN ESXi host	vSAN disk groups per host	OSA: 5. ESA: N/A	
vSAN ESXi host	SSD disks per disk group	OSA: 1. ESA: N/A	
vSAN ESXi host	Spinning disks in all diskgroups per host	OSA: 35. ESA: N/A	
vSAN ESXi host	Components per vSAN host	OSA: 9,000. ESA: 27,000	
vSAN ESXi host	Cache tier maximum devices per host	OSA: 5. ESA: N/A	
vSAN ESXi host	Capacity tier maximum devices per diskgroup	OSA: 7. ESA: N/A	
vSAN ESXi host	Capacity tier maximum devices	OSA: 35. ESA: 24	
vSAN Cluster	Number of vSAN hosts in a cluster	64	Number of vSAN hosts in a cluster managed by vSphere Lifecycle Manager is 64
vSAN Cluster	Number of datastores per cluster	1	
vSAN Cluster	Maximum number of witness hosts in a vSAN Stretched Cluster or 2-Node Direct Connect configuration	1	
vSAN Cluster	Maximum number of data hosts in a vSAN 2-Node Direct Connect configuration	2	
vSAN Cluster	Stretched Cluster maximum number of data hosts	40 (20 per site x 2)	
vSAN virtual machines	Virtual machines per host	200	
vSAN virtual machines	Virtual machines per cluster	6400	
vSAN virtual machines	Virtual machine virtual disk size	62 TB	
vSAN virtual machines	Disk stripes per object	12	
vSAN virtual machines	Percentage of flash read cache reservation	100	
vSAN virtual machines	Percentage of object space reservation	100	
vSAN virtual machines	vSAN networks/physical network fabrics	2	
vSAN iSCSI Target	Number of iSCSI LUNs per Cluster	1024	
vSAN iSCSI Target	Number of iSCSI Targets per Cluster	128	
vSAN iSCSI Target	Number of iSCSI LUNs per Target	256	
vSAN iSCSI Target	Max iSCSI LUN size	62 TB	
vSAN iSCSI Target	Number of iSCSI sessions per Node	128	
vSAN iSCSI Target	iSCSI IO queue depth per Node	4096	
vSAN iSCSI Target	Number of outstanding writes per iSCSI LUN	128	
vSAN iSCSI Target	Number of outstanding IOs per iSCSI LUN	256	
vSAN iSCSI Target	Number of initiators who register PR key for a iSCSI LUN	64	
Virtual Volumes : Virtual Volumes (SCSI and NFS)			
Virtual Volumes	Data Virtual Volume Size	62 TB	
Virtual Volumes	Number of Virtual Volumes bound to a host	4000	
Virtual Volumes	Number of PEs per host	256	

Category		Limits	Description
Virtual Volumes	Storage Container size	2 ^ 63 TB	
Virtual Volumes	Storage Container per host	256	
Virtual Volumes : Virtual Volumes (NVMe)			
Virtual Volumes	Data Virtual Volume Size	62 TB	
Virtual Volumes	Number of Virtual Volumes bound to a host	1000	
Virtual Volumes	Storage Container size	2^63TB	
Virtual Volumes	Storage Containers per Host	15	
Virtual Volumes			
Network I/O Control (NIOC)			
NIOC	Number of resource pools	10000	
NIOC	Number of uplinks per vds	32	
NIOC	Number of uplinks per host	32	
NIOC	Number of vNIC per host	5120	
NIOC	Max pNIC bandwidth	Approximately 10 Gbits/sec for 10G pNIC	
Storage Policies			
Storage Policies	Maximum number of VASA providers	1024	
Storage Policies	Maximum number of rule sets in virtual machine storage policy	16	
Storage Policies	Maximum capabilities in virtual machine storage policy rule set	64	
Storage Policies	Maximum vSphere tags in virtual machine storage policy	128	
Storage Policies	Maximum number of virtual machine storage policies	256	
Managed Virtual Disks			
Improved Virtual Disks	Maximum improved virtual disks	10000	
ESXi Host Maximums : Compute Maximums			
Host CPU maximums	Logical CPUs per host	896	Increased the limit from 768 to 896 from 7.0U2 onwards
Host CPU maximums	NUMA Nodes per host	16	
Virtual machine maximums	Virtual machines per host	1024	
Virtual machine maximums	Virtual CPUs per host	4096	
Virtual machine maximums	Virtual CPUs per core	32	The achievable number of vCPUs per core depends on the workload and specifics of the hardware. For more information, see the latest version of Performance Best Practices for VMware vSphere.
Fault Tolerance maximums	Virtual disks	16	
Fault Tolerance maximums	Disk size	2 TB	
Fault Tolerance maximums	Virtual CPUs per virtual machine	8	
Fault Tolerance maximums	RAM per FT VM	128 GB	
Fault Tolerance maximums	Virtual machines per host	4	

Category		Limits	Description
Fault Tolerance maximums	Virtual CPU per host	8	
ESXi Host Maximums : ESXi Graphics Maximums			
GPU based Graphics Maximums	Maximum number of shared physical GPUs	16	
ESXi Host Maximums : Cluster and Resource Pool Maximums			
Cluster (all clusters including HA and DRS)	Virtual Machines per cluster	8000	
Cluster (all clusters including HA and DRS)	Virtual machines per hos	1024	
Cluster (all clusters including HA and DRS)	Powered-on virtual machine config files per datastore in an HA cluster	2048	This limit does not apply to virtual disks. A virtual machine enabled with Fault Tolerance counts as two virtual machines.
Cluster (all clusters including HA and DRS)	FT virtual machines per cluster	98	
Cluster (all clusters including HA and DRS)	FT virtual machines vCPU per Cluster	256	
Cluster (all clusters including HA and DRS)	Hosts per cluster	96	The new limit of 96 hosts is applicable from 7.0U1 onwards and valid only for non-VSAN clusters. 7.0GA limit is 64 hosts per cluster
Cluster (all clusters including HA and DRS)	Clusters managed by vLCM	64	This limit is for Maximum number of cluster managed & remediated in parallel using vSphere Lifecycle Manager. 64 limit is supported from 7.0U1. 7.0GA limit is 15.
Resource Pool	Resource pools per host	1600	
Resource Pool	Children per resource pool	1600	
Resource Pool	Resource pool tree depth	8	Additional 4 resource pools are used by system internals
Resource Pool	Resource pools per cluster	1600	
ESXi Host Maximums : Networking Maximums			
Physical NICs	1 Gb Ethernet ports	up to 32	Please consult your respective I/O vendor for specific limits for their I/O technologies.
Physical NICs	10 Gb Ethernet ports	up to 16	
Physical NICs	20 Gb Ethernet ports	up to 16	
Physical NICs	Infiniband ports (refer to VMware Community Support)	N/A	Mellanox Technologies InfiniBand HCA device drivers are available directly from Mellanox Technologies. Go to the Mellanox Web site for information about support status of InfiniBand HCAs with ESXi. http://www.mellanox.com
Physical NICs	25 Gb Ethernet ports	16	- Please consult your respective I/O vendor for specific limits for their I/O technologies with vSphere. - It is recommended to have higher system memory (512GB or higher) for 16 or higher network ports configuration.
Physical NICs	50 Gb Ethernet ports	8	Please consult your respective I/O vendor for specific limits for their I/O technologies with vSphere

Category		Limits	Description
Physical NICs	100 Gb Ethernet ports	4, up to 8	8 ports are tested on Broadcom Thor 100G adapters and NVIDIA Mellanox ConnectX adapters.
Physical NICs	40 Gb Ethernet ports	8	Please consult your respective I/O vendor for specific limits for their I/O technologies with vSphere
Physical NICs	Combination of NICs between 10Gb to 100Gb and 1Gb	up to 16 (10Gb to 100Gb) and up to 16 (1Gb) ports	In the combination, you can have any mix of different speed NICs and * Combined total of 10Gb or higher speed NIC ports cannot exceed 16 * In addition, you can have up to 16 1Gb NIC ports * Total number of individual speed NIC ports cannot exceed their allowed maximum (e.g., 40Gb NIC ports cannot exceed 8 in the mix; 100Gb NIC ports cannot exceed 4 in the mix) * Additional driver parameter settings may be needed with some I/0 vendor NICs, please consult IO vendor for specific limits and configuration * 512GB or higher memory is recommended for high network ports configuration, please consult with your server OEM for the recommend configuration.
VMDirectPath limits	VMDirectPath PCI/PCIe devices per host	8	
SRIOV	SR-IOV Number of virtual functions per host	1024	SR-IOV supports up to 43 virtual functions on supported Intel NICs and up to 64 virtual functions on supported Emulex NICs. The actual number of virtual functions available for passthrough depends on the number of interrupt vectors required by each of them and on the hardware configuration of the host. Each ESXi host has a limited number of interrupt vectors. When the host boots, devices on the host such as storage controllers, physical network adapters, and USB controllers consume a subset of the total number of vectors. Depending upon the number of vectors these devices consume, the maximum number of potentially supported VFs could be reduced.
SRIOV	SR-IOV Number of 10 G pNICs per host	8	
SRIOV	VMDirectPath PCI/PCIe devices per virtual machine	64	VMDirectPath PCI/PCIe devices per virtual machine is 64 from 8.0 U1 onwards
vSphere Standard and Distributed Switch	Total virtual network switch ports per host (VDS and VSS ports)	4096	
vSphere Standard and Distributed Switch	Maximum active ports per host (VDS and VSS)	1016	
vSphere Standard and Distributed Switch	Virtual network switch creation ports per standard switch	4088	
vSphere Standard and Distributed Switch	Port groups per standard switch	512	

Category		Limits	Description
vSphere Standard and Distributed Switch	Static/Dynamic port groups per distributed switch	10000	
vSphere Standard and Distributed Switch	Ephemeral port groups per distributed switch	1016	
vSphere Standard and Distributed Switch	Ports per distributed switch	60000	
vSphere Standard and Distributed Switch	Distributed virtual network switch ports per vCenter	60000	
vSphere Standard and Distributed Switch	Static/dynamic port groups per vCenter	10000	
vSphere Standard and Distributed Switch	Ephemeral port groups per vCenter	1016	
vSphere Standard and Distributed Switch	Distributed switches per vCenter	1024	We support 1024 VDS per vCenter from vSphere 8.0U1 onwards
vSphere Standard and Distributed Switch	Distributed switches per host	16	
vSphere Standard and Distributed Switch	VSS portgroups per host	1000	
vSphere Standard and Distributed Switch	LACP - LAGs per host	64	
vSphere Standard and Distributed Switch	LACP - uplink ports per LAG (Team)	32	
vSphere Standard and Distributed Switch	Hosts per distributed switch	2000	
vSphere Standard and Distributed Switch	NIOC resource pools per vDS	64	
ESXi Host Maximums : Storage Maximums			
Virtual Disks	Virtual Disks per Host	2048	
NAS	NFS mounts per host	256	256 NFS3 datastores per host as well as 256 NFS4.1 datastores per host are supported. E.g: same ESXi host can have 256 NFS3 and 256 NFS4.1 datastores mounted. But individual limit of 256 NFS datastores is to be maintained per protocol version. Please refer to KB: https://kb.vmware.com/s/article/91481 for limitations w.r.t. nConnect.
NAS	Hosts per NFS mount	128	Number of ESXi Hosts per NFS mount. The value is 128 starting with vSphere 7.0.3 and 64 for all releases preceding 7.0.3.
FCoE	Software FCoE adapters	4	
Common VMFS	Volume size	64 TB	
Common VMFS	Volumes per host	1024	
Common VMFS	Powered on virtual machines per VMFS volume	2048	
Common VMFS	Concurrent vMotion operations per VMFS volume	128	
VMFS5 / VMFS-6	Raw Device Mapping size (virtual compatibility)	62 TB	
VMFS5 / VMFS-6	Raw Device Mapping size (physical compatibility)	64 TB	
VMFS5 / VMFS-6	Block size	1 MB	1MB is the default block size. Upgraded VMFS5 volumes inherit the VMFS3 block size value.

Category		Limits	Description
VMFS5 / VMFS-6	File size	62 TB	
VMFS5 / VMFS-6	Files per volume	Approximately 130690	
RDMA NVMe	Namespaces per server	32	
RDMA NVMe	Number of paths to a namespace	4	
RDMA NVMe	Number of total paths on a server	128	
RDMA NVMe	Initiator ports per server	2	
iSCSI	LUNs per server	1024	
iSCSI	Cavium (Qlogic) 10 Gb iSCSI HBA initiator ports per server	4	
iSCSI	NICs that can be associated or port bound with the software iSCSI stack per server	8	
iSCSI	Number of total paths on a server	4096	
iSCSI	Number of paths to a LUN (software iSCSI and hardware iSCSI)	32	
iSCSI	Cavium (Qlogic)10 Gb hardware iSCSI HBA targets per adapter port	128	
iSCSI	Software iSCSI targets	256	The sum of static targets (manually assigned IP addresses) and dynamic targets (IP addresses assigned to discovered targets) may not exceed this number.
iSCSI	LUN size	64 TB	
Fibre Channel - SCSI	LUNs per host	1024	
Fibre Channel - SCSI	Number of paths to a LUN	32	Max number pf paths per namespace = 8 (for release till 8.0.0) = 32 for releases 8.0.1 and later.
Fibre Channel - SCSI	Number of total paths on a server	4096	
Fibre Channel - SCSI	HBA ports	16	
Fibre Channel - SCSI	Number of HBAs of any type	8	
Fibre Channel - SCSI	LUN size	64 TB	
Fibre Channel - SCSI	LUN ID	0 to 16383	
Fibre Channel - SCSI	Targets per HBA	256	
VMFS SCSI	Hosts per volume	128	
Fibre Channel - NVMe	Namespaces per server	256	
Fibre Channel - NVMe	Number of paths to a namespace	32	Max paths per namespace = 8 (till 8.0.0 release), 32 starting 8.0.1 release
Fibre Channel - NVMe	Number of total paths on a server	2048	
Fibre Channel - NVMe	Initiator ports per server	2	
Fibre Channel - NVMe	namespace size	64 TB	
VMFS - Fibre Channel NVMe	Hosts per volume	16	
TCP NVMe	Namespaces per server	256	
TCP NVMe	Number of paths to a namespace	32	Max number pf paths per namespace = 8 (for release till 8.0.0) = 32 for releases 8.0.1 and later.
TCP NVMe	Number of total paths on a server	2048	
TCP NVMe	Initiator ports per server	2	
TCP NVMe	namespace size	64 TB	
VMFS - TCP NVMe	Hosts per volume	16	

Category		Limits	Description
ESXi Host Maximums : Memory Maximums			
ESXi Host Memory Maximums	Maximum RAM per host	24 TB	Please check VMware compatibility guide for specific guidance for your server platform
ESXi Host Memory Maximums	Number of swap files	1 per virtual machine	
ESXi Host Persistent Memory Maximums	Maximum Non-volatile memory per host	12TB	Please check VMware compatibility guide for specific guidance for your server platform.
vSphere with Kubernetes : Cluster (ESXi clusters)			
Cluster (ESXi clusters)	Maximum number of ESXi clusters enabled with vSphere with Kubernetes per vCenter	50	
Cluster (ESXi clusters)	Maximum number of hosts per WCP enabled cluster	64	
Cluster (ESXi clusters)	Maximum number of vSphere Pods (PodVM) per ESXi cluster	8000	
Cluster (ESXi clusters)	Maximum number of vSphere Pods (PodVM) per ESXi node	1000	
vSphere Pod service	Maximum number of containers per vSphere Pod	10	
vSphere Pod service	Maximum Number of vSphere Pods (PodVM) per vCenter	15000	
vSphere Pod service	Maximum number of vSphere Pods (PodVM) per vCenter Namespace	8000	
vSphere Pod service	Maximum number of Namespace per vCenter	500	
vSphere Registry service	Concurrent parallel Push to multiple Projects per Supervisor cluster	50	
vSphere Registry service	Concurrent Pull Image from Registry to create pods per Supervisor cluster	32	
vSphere Registry service	Maximum number of Projects created from Registry per Supervisor cluster	500	
vSphere with Kubernetes	Maximum number of persistence volumes per supervisor cluster	1000	
vSphere with Kubernetes	Maximum number of persistence volumes per vcenter (across all Kubernetes clusters)	10000	
VMware Tanzu Kubernetes Grid service for vSphere			
Nodes	Maximum number of worker nodes in a single Tanzu Kubernetes cluster	150	
Nodes	Maximum number of control plane nodes in a single Tanzu Kubernetes cluster	3	
vSphere Tanzu Kubernetes Grid service	Maximum number of Kubernetes clusters that can be created per Supervisor Cluster	190	190 (with NSX-T) 100 (with vSphere Network)
vSphere Tanzu Kubernetes Grid service	Maximum number of pods per Kuberetes Cluster	15000	
vSphere Tanzu Kubernetes Grid service	Maximum number of PVCs per worker node	60	

Category		Limits	Description
vSphere Tanzu Kubernetes Grid service	Maximum number of namespaces per Kubernetes Cluster	1000	
vSphere Tanzu Kubernetes Grid service	Number of Kubernetes Clusters per Supervisor Namespace	93	
vSphere Tanzu Kubernetes Grid service	Maximum number of persistence volumes per tanzu cluster	5600	
vSphere Tanzu Kubernetes Grid service	Maximum number of persistence volumes per vcenter (across all Kubernetes clusters)	10000	
vCenter Server : Storage DRS			
Cluster (all clusters including HA and DRS)	Virtual disks per datastore cluster	9000	
Cluster (all clusters including HA and DRS)	Datastores per datastore cluster	64	
Cluster (all clusters including HA and DRS)	Datastore clusters per vCenter	256	
vCenter Server			
vCenter Server Scalability	Hosts per vCenter Server	2500	
vCenter Server Scalability	Powered-on virtual machines per vCenter Server	40000	
vCenter Server Scalability	Registered virtual machines per vCenter Server	45000	
vCenter Server Scalability	Linked vCenter Servers	15	
vCenter Server Scalability	Hosts in linked vCenter Servers	15000	
vCenter Server Scalability	Powered-on virtual machines in linked vCenter Servers	135000	
vCenter Server Scalability	Registered virtual machines in linked vCenter Servers	150000	
vCenter Server Scalability	MAC addresses per vCenter Server (using default VMware OUI)	65536	
vCenter Server Scalability	Hosts per vCenter Server managed by vSphere Lifecycle Manager	1000	We support up to 1000 hosts per vCenter to be managed by vSphere Lifecycle Manager.
vSphere Web Client User Interface	Maximum mixed vSphere Client (HTML5) simultaneous connections per VC	100	Maximum number of H5C client connections supported
Concurrent operations	vMotion operations per host (1 Gb/s network)	4	
Concurrent operations	vMotion operations per host (10 Gb/s network)	8	
Concurrent operations	vMotion operations per datastore	128	
Concurrent operations	Storage vMotion operations per host	2	
Concurrent operations	Storage vMotion operations per datastore	8	
Concurrent operations	Non-vMotion provisioning operations per host	8	
Content Library	Total content library items per VC (across all libraries)	2000	
Content Library	Biggest content library item size	1 TB	
Content Library	Total number of libraries per VC	1000	
Content Library	Total items per library	1000	

Category		Limits	Description
Content Library	Maximum number of concurrent sync operations on the published library's VC	16	This limit is applicable to libraries published by vCenter Server and not to third party libraries.
Content Library	VMDK per OVA/OVF template	9	
Host Profile	Profile created	500	
Host Profile	Profile attached	500	
vSphere+ (VMware Cloud Gateway) : VMware Cloud Gateway **Config Max limits for vSphere+ subscription with Gateway, latency and more**			
VMware Cloud Gateway	Registered vCenters Per Cloud Gateway	8	Maximum number of vCenters that can be registered per VMware cloud Gateway
VMware Cloud Gateway	Latency between VC and Gateway	300 ms	Recommended Max latency between vCenter and VMware Cloud Gateway is to not exceed 300ms.
VMware Cloud Gateway	Latency between Gateway and VMware Cloud	300 ms	Recommended maximum latency limits between VMware Cloud Gateway and VMware Cloud is to not exceed 300ms.