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XenServer 7.2 Configuration Limits
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Citrix recommends using the following configuration limits as a guideline when selecting and configuring your virtual and physical environment for XenServer. The following information represents tested and recommended configuration limits that are fully supported by Citrix for XenServer.

- Virtual Machine Limits
- Citrix XenServer Host Limits
- Resource Pool Limits

Factors such as hardware and environment can affect the limitations listed below. More information about supported hardware can be found on the XenServer Hardware Compatibility List. Consult your hardware manufacturers' documented limits to ensure you do not exceed the supported configuration limits for your environment. Refer to the XenServer Technical Specifications and XenServer White Papers for the latest technical specifications, platform requirements and white papers on capacity planning and performance testing completed for XenServer.

Virtual Machine (VM) Limits

Item	Limit
Compute	
Virtual CPUs per VM (Linux)	32 [1]
Virtual CPUs per VM (Windows)	32
Memory	
RAM per VM	1.5TB [2]
Storage	
Virtual Disk Images (VDI) (including CD-ROM) per VM	255 [3]
Virtual CD-ROM drives per VM	1
Virtual Disk Size (NFS)	2TB minus 4GB
Virtual Disk Size (LVM)	2TB minus 4GB
Networking	
Virtual NICs per VM	7 [4]

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[1] Consult your guest OS documentation to ensure you do not exceed the supported limits.

[2] The maximum amount of physical memory addressable by your operating system varies. Setting the memory to a level greater than the operating system supported limit may lead to performance issues within your guest. Some 32-bit Windows operating systems can support more than 4GB of RAM through use of the physical address extension (PAE) mode. The limit for 32-bit PV Virtual Machines is 64GB. Please consult your guest operating system Administrators Guide and the *Citrix XenServer Virtual Machine User's Guide* for more details.

[3] The maximum number of VDIs supported is dependent on the guest operating system. Consult your guest OS documentation to ensure you do not exceed the supported limits.

[4] Several guest OS have a lower limits, other guests require installation of the Citrix XenServer Tools in order to achieve this limit.

Citrix XenServer Host Limits

Item	Limit
Compute	
Logical processors per host	288 [5]
Concurrent VMs per host	1000 [6]
Concurrent protected VMs per host with HA enabled	500
Virtual GPU VMs per host	128 [7]
Memory	
RAM per host	5 TB [8]
Storage	
Concurrent active virtual disks per host	4096
Networking	
Physical NICs per host	16
Physical NICs per network bond	4
Virtual NICs per host	512
VLANs per host	800
Network Bonds per host	4
Graphics Capability	
GPUs per host	12 [9]

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[5] The maximum amount of logical physical processors supported differs by CPU. Please consult the *Citrix XenServer Hardware Compatibility List* for more details on the maximum amount of logical cores supported per vendor and CPU.

[6] The maximum number of VMs/host supported is dependent on VM workload, system load, network configuration, and certain environmental factors. Citrix reserves the right to determine what specific environmental factors affect the maximum limit at which a system can function. For systems running over 500 VMs, Citrix recommends allocating 8GB RAM to the Control Domain (Dom0). For information about configuring Dom0 memory, see CTX134951.

[7] For NVIDIA vGPU, 128 vGPU accelerated VMs per host with 4xM60 cards (4x32=128VMs), or 2xM10 cards (2x64=128VMs). For Intel GVT-g, 7 VMs per host with a 1024MB aperture size. Smaller aperture sizes may further restrict the number of GVT-g VMs supported per host. This figure may change, refer to the *Citrix XenServer Hardware Compatibility List* for current supported limits.

[8] If a host has one or more 32-bit paravirtualized guests (Linux VMs), running a maximum of 128GB RAM is supported on the host.

[9] This figure may change, refer to the *Citrix XenServer Hardware Compatibility List* for current supported limits.

Resource Pool Limits

Item	Limit
Compute	
VMs per resource pool	4096
Hosts per resource pool	16
Networking	
VLANs per resource pool	800
Active hosts per cross-server private network	16
Cross-server private networks per resource pool	16
Virtual NICs per cross-server private network	16
Cross-server private network virtual NICs per resource pool	256
Hosts per vSwitch controller	64
Virtual NICs per vSwitch controller	1024
VMs per vSwitch controller	1024
Disaster Recovery	
Integrated Site Recovery storage repositories per resource pool	8
Storage	
Paths to a LUN	8
Multipathed LUNs per host	256 [10]
Multipathed LUNs per host (used by storage repositories)	256 [10]
VDIs per SR (NFS, SMB, EXT)	20000
VDIs per SR (LVM)	1000
Storage XenMotion	
(non-CDROM) VDIs per VM	6
Snapshots per VM	1
Concurrent transfers	3
XenCenter	
Concurrent operations per pool	25

If you have any comments about this documentation, submit your feedback to: XenServerlimits@citrix.com.

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[10] When HA is enabled, Citrix recommends increasing the default timeout to at least 120 seconds when more than 30 multipathed LUNs are present on a host. For information about increasing the HA timeout, see http://support.citrix.com/article/CTX139166.

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