

This article contains the Frequently Asked Questions for XenServer 6.1.0.

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# Product Overview

## Q: What is Citrix XenServer?

A: Citrix XenServer is a complete, managed server virtualization platform which utilizes the powerful open-source Xen hypervisor. XenServer is designed for efficient management of Windows® and Linux® Virtual Machines (VMs) and delivers cost-effective server consolidation and business continuity.

## Q: What is Virtualization?

A: Virtualization is a method of running multiple independent virtual operating systems on a single physical computer. It is a way of fully utilizing physical resources available in modern powerful servers, which reduces the total cost of ownership (TCO) for server deployments.

## Q: What is the difference between XenServer and open-source Xen?

A: [Xen®](#) is the underlying hypervisor used by XenServer. Xen technology is widely acknowledged as the fastest and most secure virtualization platform in the industry.

In addition to the open-source Xen hypervisor, Citrix XenServer includes:

- Control domain (dom0)
- XenCenter – Windows client for VM management
- VM Templates for installing popular operating systems as VMs
- Enterprise level support

Click [here](#) for more details.

## Q: What is a hypervisor?

A: A hypervisor is the basic abstraction layer of software. The hypervisor is responsible for low-level tasks such as CPU scheduling and is responsible for memory isolation for resident VMs. The hypervisor abstracts from the hardware for the VMs. The hypervisor has no knowledge of networking, external storage devices, video, etc. The [Xen.org](#) community develops and maintains the Xen® hypervisor as a free solution licensed under the GNU General Public License.

## Q: What is the Control Domain (dom0)?

A: The Control Domain, also called Domain 0 or *dom0*, is a secure, privileged VM that runs the XenServer management toolstack known as xapi. Besides providing XenServer management functions, dom0 also runs the physical device drivers for networking, storage etc.

## Q: What is xapi, what does it do, is it the same as the XenAPI?

A: xapi is the software stack that controls VM lifecycle operations, host and VM networking, VM storage, user authentication, and allows the management of XenServer resource pools.

xapi provides the publicly documented [XenAPI Management Interface](#) which is used by all tools that manage VMs and resource pools.

Examples of internal and external tools that make use of the XenAPI include:

- XenCenter management GUI
- xs management console
- xe command-line interface
- Automated Workload Balancing virtual appliances
- Apache Cloudstack Cloud orchestration software

### **Q: What is the difference between the free edition and the paid for editions of XenServer?**

A: Citrix distributes one installation package for all editions of XenServer. The three paid-for editions allow the use of additional features and are known as Advanced, Enterprise, and Platinum. Licensing determines what features are available per version and customers can upgrade or move between versions without reinstalling. Click [here](#) more details on the features available in each edition. XenServer is available for download [here](#).

### **Q: What's New in XenServer 6.1.0?**

A: Refer to the [XenServer 6.1.0 Release Notes](#) for details about the new features and ongoing improvements in this release.

### **Q: What are the minimum system requirements for running XenServer?**

A: The minimum system requirements are described [here](#).

### **Q: What are the maximum capabilities of XenServer?**

A: The maximum supported capabilities of XenServer are described in the [XenServer 6.1.0 Configuration Limits](#) document.

## **Hardware**

### **Q: Do I need a system with a 64-bit x86 processor to run XenServer?**

A: Yes, either an Intel VT or AMD-V 64-bit x86-based system with one or more CPUs is required to run all supported guest operating systems. Click [here](#) for more details on XenServer host system requirements.

### **Q: Do I need a system with hardware virtualization support for running Microsoft Windows guest operating systems?**

A: Yes. To run Windows operating systems, you need a 64-bit x86 processor-based system that supports either Intel VT or AMD-V hardware virtualization technology in the processor and BIOS.

## **Q: Can I run XenServer on a system without hardware virtualization support?**

A: Yes, but you will be limited to Linux-based paravirtualized guests.

## **Q: What systems are certified to run XenServer?**

A: Click [here](#) for a complete list of XenServer certified systems,

## **Q: What does the AMD-V and Intel VT technology do?**

A: The hardware virtualization technology in AMD-V and Intel VT-enabled processors allow the Xen hypervisor to efficiently handle certain virtualization-unsafe x86 instructions that a VM might call during its normal course of operation. In first-generation virtualization systems, complex software layers had to emulate the VM's machine code and rewrite unsafe x86 instructions in real-time. The Intel VT and AMD-V hardware virtualization technologies allow the hypervisor to automatically trap these instructions which vastly improve virtualization performance for Windows guests.

## **Q: How can I tell if my Intel-based system has Intel VT technology?**

A: You are advised to check with the system manufacturer to determine if the system has Intel VT hardware virtualization technology. Generally, systems with Intel VT-enabled processors have the option in the BIOS to enable Intel Virtualization Technology in the Processor, CPU, or Advanced Configuration menus. The XenServer product installer performs a check on the system to alert you whether Intel VT technology is detected on the server prior to installation.

Refer to the Intel [website](#) to find the most current list of VT-enabled processors. Systems with Intel VT-enabled processors also require BIOS support for Intel VT hardware virtualization capabilities.

## **Q: How can I tell if my AMD based system has AMD-V technology?**

A: You are advised to check with the system manufacturer to determine if the system has AMD-V hardware virtualization technology. The XenServer product installer performs a check on the system to alert you whether AMD-V technology is detected on the server prior to installation.

Refer to the AMD [website](#) to find the most current list of AMD-V enabled processors. Systems with AMD-V processors also require BIOS support for AMD-V hardware virtualization capabilities.

**Note:** Some AMD Sempron processors do not contain AMD-V hardware virtualization technology and are therefore incompatible with XenServer.

## **Q: Does XenServer support AMD Rapid Virtualization Indexing and Intel Extended Page Tables?**

A: Yes. XenServer provides support for AMD Rapid Virtualization Indexing and Intel Extended Page Tables. Rapid Virtualization Indexing provides an implementation of nested tables technology used to further enhance performance of the Xen hypervisor. Extended Page Tables provide an implementation of hardware assisted paging used to further enhance performance of the Xen hypervisor.

## **Q: Can XenServer run on a notebook or desktop-class systems?**

**A:** XenServer will run on many notebook or desktop-class systems as long as they conform to the minimum CPU requirements. However, Citrix only supports systems which have been certified and listed on [Hardware Compatibility List \(HCL\)](#). Customers might choose to run on unsupported systems for demonstration purposes; however, some features, such as power management capabilities will not work.

## **Product Limits**

**Note:** A complete list of XenServer supported limits might be found in the [XenServer Configuration Limits](#) document.

## **Q: What is the maximum size of memory that XenServer can use on a host system?**

**A:** XenServer host systems can use up to 1TB of physical memory.

## **Q: How many processors can XenServer use?**

**A:** XenServer supports up to 160 *logical* processors per system.

**Note:** The maximum number of logical processors supported differs by CPU. Consult the [XenServer Hardware Compatibility List](#) (HCL) for more details.

## **Q: How many Virtual Machines can run on XenServer concurrently?**

**A:** The maximum number of Virtual Machines (VMs) which are supported to run on a XenServer host is 150. For any particular system the number of VMs that can run concurrently and with acceptable performance, will depend on the available resources and the VM workload. The default XenServer configuration supports 50 concurrent running VMs; if users wish to run more than 50, they should follow the advice in [CTX134951 - Configuring dom0 memory in XenServer 6.1.0.](#)

## **Q: How many VMs can be created on XenServer?**

**A:** Citrix does not limit the number of guest VMs that can be created with XenServer.

## **Q: How many physical network interfaces does XenServer support?**

**A:** XenServer supports up to 16 NICs. These might be bonded to create up to 8 logical network bonds, with a limit of 4 NICs per bond.

## **Q: How many virtual processors (vCPUs) can XenServer allocate to a VM?**

**A:** XenServer supports up to 32 vCPUs per guest. The number of vCPUs which can be supported varies by the guest operating system. Refer to the [XenServer 6.1.0 VM User's Guide](#) for details.

### **Q: How much memory can XenServer allocate to a VM?**

**A:** XenServer supports up to 128GB per guest. The amount of memory which can be supported varies by the guest operating system. Refer to the [XenServer 6.1.0 VM User's Guide](#) for details.

### **Q: How many virtual disk drives can XenServer allocate to a VM?**

**A:** XenServer can allocate up to 16 virtual disk drives (VDI), including a virtual DVD-ROM device, per VM. The number of VDIs which can be supported varies by the guest operating system. Refer to the [XenServer 6.1.0 VM User's Guide](#) for more details.

### **Q: How many virtual network interfaces can XenServer allocate to a VM?**

**A:** XenServer can allocate up to 7 virtual NICs per VM. The number of virtual NICs which can be supported varies by the guest operating system. Refer to the [XenServer 6.1.0 VM User's Guide](#) for more details.

## **Resource Sharing**

### **Q: How are processing resources split between VMs?**

**A:** Processing resources are split between vCPUs using a fair share balancing algorithm. This algorithm ensures that all VMs get their share of the system's processing resources.

### **Q: How does XenServer choose which physical processors it allocates to the VM?**

**A:** XenServer does not statically allocate physical processors to any specific VM. Instead, XenServer dynamically allocates, depending on load, any available logical processors to the VM. This ensures that processor cycles are used efficiently as the VM can run wherever there is spare capacity.

### **Q: How are disk I/O resources split between the VMs?**

**A:** XenServer uses a fair share resource split for disk I/O resources between VMs. Additionally, you can also provide a VM higher or lower priority access to disk I/O resources.

### **Q: How are network I/O resources split between the VMs?**

**A:** XenServer uses a fair share resource split for network I/O resources between the VMs. Additionally, you can control bandwidth throttling limits per VM using the Open vSwitch.

# Guest Operating Systems

## **Q: Can XenServer run 32-bit operating systems as guests?**

A: Yes. Refer to the [XenServer 6.1.0 VM User's Guide](#) for more details.

## **Q: Can XenServer run 64-bit operating systems as guests?**

A: Yes. Refer to the [XenServer 6.1.0 VM User's Guide](#) for more details.

## **Q: Which versions of Microsoft Windows can run as guests on XenServer?**

A: Refer to the [XenServer 6.1.0 VM User's Guide](#) for a complete list.

## **Q: Which versions of Linux can run as guests on XenServer?**

A: Refer to the [XenServer 6.1.0 VM User's Guide](#) for a complete list.

## **Q: Can I run different versions of the supported operating systems or other un-listed operating systems?**

A: Citrix only supports operating systems (OS) under OS vendor support. While they might continue to function, customers might be asked to upgrade to a supported OS service pack before issues can be investigated.

OS versions not explicitly supported might not have applicable drivers available, and therefore will not function with optimized performance.

It is often possible to install other distributions of Linux. However, Citrix can only support the operating systems listed in the [XenServer 6.1.0 VM User's Guide](#) and customers might be asked to switch to a supported OS before issues can be investigated.

## **Q: Does XenServer support Solaris x86 as a guest operating system?**

A: XenServer does not support Solaris x86-based guest operating systems; however it is available as an *experimental* guest. Experimental guest operating systems have received limited testing, might not be present in future product releases, and must not be enabled on production systems. Citrix might not respond to support requests regarding experimental features.

## **Q: Does XenServer support Novell Netware as a guest operating system?**

A: XenServer does not support Novell Netware-based guest operating systems.

**Q: Does XenServer support FreeBSD, NetBSD, or any other BSD variants as a guest operating system?**

A: XenServer does not support any BSD-based guest operating systems for general-purpose virtualization deployments. However, FreeBSD 6.3 VMs running on XenServer have been certified for use in specific Citrix products.

**Q: What are the XenServer Tools?**

A: The XenServer Tools are software packages for Windows and Linux-based guest operating systems. The Tools include high-performance disk and network paravirtualized drivers (PV drivers) for Windows operating systems, and a Guest Agent for Linux-based operating systems that provides additional information about the VM to the XenServer host.

Refer to the [XenServer 6.1.0 VM User's Guide](#) for more details.

## XenCenter

**Q: Do I need to run XenCenter on a Windows computer?**

A: The XenCenter management console runs on a Windows operating system. Refer to the [XenServer 6.1.0 Installation Guide](#) for more details of the system requirements. Customers who do not wish to run Windows can control their XenServer hosts and pools using the xe command-line Interface (CLI) installed locally or running on the XenServer host or the xs console.

**Q: Is the communication between XenCenter and the XenServer systems secure?**

A: Yes. 256-bit AES SSL encryption secures all communications between XenCenter and the physical host system running XenServer.

**Q: Can I log on to XenCenter using my Active Directory user accounts?**

A: Yes. You can set up XenCenter login requests to use Active Directory on all additions of XenServer.

**Q: Can I restrict access of certain functions within XenCenter, to certain users?**

A: Yes. The Role Based Access Control feature in XenServer Enterprise and Platinum editions combined with Active Directory authentication can restrict user's access in XenCenter.

**Q: Can I use a single XenCenter console to connect to multiple XenServer hosts?**

A: Yes. You can use a single XenCenter console to connect to multiple XenServer host systems.

## **Q: Can I use XenCenter to connect to multiple hosts running different editions of XenServer?**

**A:** Yes. XenCenter is backward compatible with multiple host systems running different editions of XenServer.

## **Q: Can I use XenCenter to connect to multiple Resource Pools?**

**A:** Yes. You can connect to multiple Resource Pools from a single XenCenter console.

## **Q: How can I gain access to the console of Linux-based VM?**

**A:** XenCenter, through the Console tab, provides access to the text-based and graphical consoles of VMs running Linux-based operating systems. Before you can connect with the XenCenter graphical console, you need to ensure that the VNC server and an X display manager are installed on the VM and properly configured. Alternatively, customers might choose to connect directly to their guests through SSH using a third party SSH client or an external VNC client.

## **Q: How can I gain access to the console of a Windows-based VM?**

**A:** XenCenter provides access to the emulated graphics for a Windows VM. Additionally, if remote desktop capabilities are detected on the VM, a quick connect button is provided to launch and connect to the VM using a built-in RDP client. Alternatively, customers might choose to connect directly to their guests using external remote desktop software.

## **Command-line Interface (CLI)**

### **Q: Does XenServer include a CLI?**

**A:** Yes. All editions of XenServer include a full command-line interface (CLI) – known as “xe”.

### **Q: Can I access the XenServer CLI directly on the host?**

**A:** Yes. The CLI can be accessed using a screen and keyboard connected directly to the host, or through a terminal emulator connected to the host’s serial port.

### **Q: Can I access the XenServer CLI from a remote system?**

**A:** Yes. Citrix ships the xe CLI which can be installed on Windows and Linux machines to remotely control XenServer. Additionally, access to the host’s console can be achieved by using the host’s Console tab in XenCenter.

### **Q: Is communication between the CLI and the XenServer host system secured?**

**A:** Yes. XenServer used 256-bit SSL (AES) encryption to secure all communications between the command-line interface and the XenServer host.

## Virtual Machines (VMs)

### **Q: Can VMs created with VMware or Hyper-V run on XenServer?**

A: Yes. VMs can be exported and imported using the industry-standard OVF format. VMs can also be imported singularly using the *XenConvert* tool, or converted in batches using *XenServer Conversion Manager*. Third party tools are also available.

For more information refer to [CTX133505 - How to Export VMware Virtual Machine to OVF Package](#) and [CTX134686 - XenServer Conversion Manager Guide](#)

### **Q: Can I convert physical machines to VMs to run on XenServer?**

A: Yes. XenConvert can also be used to convert physical machines.

### **Q: Where can I find more information on XenConvert?**

A: Click [here](#) for more information.

### **Q: What types of installation media can I use to install a guest operating system?**

A: You can install a guest operating system by using a CD in the host's CD-ROM drive or virtual CD-ROM drive using iLO or DRAC, you can place ISO images on to a share network drive or, you can network install where supported by the specific guest. For more information refer to the [XenServer 6.1.0 VM User's Guide](#).

### **Q: Can I make a clone of an existing VM?**

A: Yes. Any VM created on XenServer can be cloned or converted into a VM template. A VM template can then be used to create additional VMs.

### **Q: Can VMs be exported from one edition of XenServer and moved to another?**

A: Yes. VMs from older versions of XenServer can be imported to a newer version.

### **Q: Can I convert a VM from the open source version of Xen to XenServer?**

A: No.

### **Q: Does XenServer provide disk snapshot capabilities for VMs?**

A: Yes, XenServer supports snapshotting in all editions. Refer to [CTX122978](#) for more information.

## **Q: Can I backup VMs automatically?**

**A:** Yes. XenServer VM Protection and Recovery (VMPR) feature provides a simple way to regularly backup your VMs. Refer to the [XenServer 6.1.0 Administrator's Guide](#) for more details.

## **Storage**

### **Q: What types of local storage can be used with XenServer?**

**A:** XenServer supports local storage such as PATA, SATA, and SCSI. Click [here](#) for more details.

### **Q: What type of SAN/NAS storage can be used with XenServer?**

**A:** XenServer supports Fibre Channel, Hardware-based iSCSI (HBA), iSCSI, and NFS are supported. Refer to the [XenServer 6.1.0 Administrator's Guide](#) and the [XenServer Hardware Compatibility List \(HCL\)](#) for more details.

### **Q: Does XenServer support software-based iSCSI?**

**A:** Yes. XenServer includes a built-in software-based iSCSI initiator (open-iSCSI).

### **Q: What version of NFS is required for remote storage use?**

**A:** XenServer requires NFS Version 3 over TCP for remote storage use. NFS v4 and NFS over UDP are not currently supported by XenServer.

### **Q: Can I use software-based NFS running on a general-purpose server for remote shared storage?**

**A:** Yes, although Citrix recommends using a dedicated network attached storage (NAS) device with NFS Version 3 with high-speed non-volatile caching to achieve acceptable levels of I/O performance.

### **Q: Can I boot a XenServer host system from an iSCSI or Fibre Channel SAN?**

**A:** Yes, XenServer supports Boot from SAN using Fibre Channel or iSCSI HBAs.

### **Q: Does XenServer support Multipath I/O (MPIO) for storage connections?**

**A:** Yes, Citrix recommends using multipath for resilient storage connections.

### **Q: Does XenServer support a software-based RAID implementation?**

**A:** No, XenServer does not support software RAID is not supported.

### **Q: Does XenServer support HostRAID or FakeRAID solutions?**

**A:** No, XenServer does not support proprietary RAID-like solutions, such as HostRAID or FakeRAID.

**Q: Does XenServer support thin cloning of existing VMs?**

A: Yes. Thin cloning is available on local disks formatted for EXT3, as well as NFS storage repositories.

**Q: Does XenServer support Distributed Replicated Block Device (DRDB) storage?**

A: No, XenServer does not support DRDB.

**Q: Does XenServer support ATA over Ethernet?**

A: No, XenServer does not support ATA over Ethernet based storage.

## Networking

**Q: Can I create private networks that isolate groups of VMs?**

A: Yes. You can create a private network on a single host for resident VMs. Additionally with the Open vSwitch, you can create private networks that span multiple hosts with or without encryption.

**Q: Does XenServer support multiple physical network connections?**

A: Yes, you can connect to and/or associate multiple physical networks that attach to different network interfaces on the physical host system.

**Q: Can VMs connect to multiple networks?**

A: Yes. VMs are able to connect to any network available to the host.

**Q: Does XenServer support VLANs on a physical network interface?**

A: Yes. XenServer supports assigning VM networks to specified VLANs.

**Q: Do XenServer virtual networks pass all network traffic to all VMs?**

A: No. XenServer's Open vSwitch (OVS) acts as a Layer 2 switch; a VM will only see traffic designated for that VM. Additionally the multi-tenancy support in XenServer enables increased levels of isolation and security.

**Q: Do the virtual network interfaces and networks support promiscuous mode?**

A: Yes. Virtual network interfaces can be configured for promiscuous mode, which enables you to see all traffic on a virtual switch. Refer to the following Knowledge Center articles for more information about promiscuous mode configuration, [CTX116493 - How to Enable Promiscuous Mode on a Physical Network Card](#) and [CTX121729 - How to Configure a Promiscuous Virtual Machine in XenServer](#). Additionally, the Open vSwitch enables configuration of RSPAN to capture network traffic.

## **Q: Does XenServer support bonding or teaming of physical network interfaces?**

**A:** XenServer supports physical network interface bonding for failover and link aggregation. Refer to [XenServer 6.1.0 Administrator's Guide](#) and [Designing XenServer Network Configurations](#) more details.

## **Memory**

### **Q: How much memory is consumed by running XenServer on a host?**

**A:** The amount of memory required to run the hypervisor and domain0, is dependent on the system load. The system defaults to 762MB but can be manually adjusted should users need to run a large number of VMs. Refer to [CTX134951 - Configuring dom0 memory in XenServer 6.1.0](#)

### **Q: Does XenServer optimize VM memory usage?**

**A:** Yes. XenServer's Dynamic Memory Control (DMC) works by automatically adjusting the memory of running VMs, keeping the amount of memory allocated to each VM between specified minimum and maximum memory values, guaranteeing performance and permitting greater VM density. Refer to the [XenServer 6.1.0 Administrator's Guide](#).

## **Resource Pools**

### **Q: What is a Resource Pool?**

**A:** A resource pool is a collection of a set of XenServer hosts managed as a unit. Typically, a resource pool will share some amount of networked storage to allow VMs to be rapidly migrated from one host to another within the pool. Refer to the [XenServer 6.1.0 Administrator's Guide](#) for more details.

### **Q: Does XenServer require a specific machine to manage a resource pool?**

**A:** No. One host in the pool is specified to be the "Pool Master". The Pool Master controls all administrative activities required on the pool. This means that there is no external single point of failure. If the Pool Master fails, other hosts in the pool will continue to operate, and resident VMs will continue to run as normal. If the Pool Master cannot be brought back online, one of the other hosts in the pool can be promoted to master to regain control of the pool.

This process is automated with the *High Availability* feature. Refer to the [XenServer 6.1.0 Administrator's Guide](#) for more details.

### **Q: Where is the configuration data for a resource pool stored?**

**A:** A copy of the configuration data is stored on every host in the resource pool. If the current pool master fails, this enables any host in the resource pool to become the new pool master.

## **Q: What types of configurations can be made at the Resource Pool level?**

**A:** Shared remote storage and networking configurations can be made at the resource-pool level. Once a configuration is shared on the Resource Pool, the master system automatically propagates configuration changes to all of the member systems.

## **Q: Will new host systems added to a Resource Pool automatically be configured with shared settings?**

**A:** Yes. Any new host systems added to a Resource Pool automatically receive the same configurations for shared storage and network settings.

## **Q: Can I use different types of CPUs in the same XenServer resource pool?**

**A:** Yes. Although Citrix recommends that the same CPU type is used throughout the pool (homogeneous resource pool) it is possible for hosts with different CPU types to join pool (heterogeneous). Heterogeneous resource pools are made possible by using the technologies in recent Intel (FlexMigration) and AMD (Extended Migration) CPUs that provide CPU "masking" or "leveling". These features allow a CPU to be configured to appear as providing a different make, model, or functionality than it actually does. This enables you to create pools of hosts with disparate CPUs but still safely support live migrations. Refer to the [XenServer 6.1.0 Administrator's Guide](#) for more details.

## **Q: Can I load balance VMs across my pool automatically?**

**A:** Yes. The XenServer Workload Balancing feature can automatically load balance VMs across the pool based on CPU, Memory, Network or Storage throughput rules. It can also consolidate VMs on to fewer hosts during off peak times and automatically power up and down hosts depending on demand. Refer to the [Workload Balancing 6.1.0 Quick Start Guide](#) for more details.

# **XenMotion (Live Migration) & Storage XenMotion**

## **Q: Can I move a running VM from one host to another?**

**A:** XenMotion allows live migration of running VMs when hosts share the same storage (in a pool). Additionally, Storage XenMotion allows migration between hosts which don't share the same storage.

## **Q: Which editions of XenServer support XenMotion?**

**A:** All editions of XenServer support XenMotion. *Storage XenMotion* requires an Advanced Edition license or above – for more details on which features are available in each XenServer edition refer [here](#).

## **Q: What storage types are supported with Storage XenMotion?**

**A:** All XenServer supported storage types, with the exception of Integrated StorageLink (iSL) are supported by Storage XenMotion.

## High Availability

### Q: Does XenServer offer High Availability features?

A: Yes. When High Availability (HA) is enabled, XenServer continually monitors the health of the hosts in a pool. If HA detects that a host is impaired, the host will be automatically shut down. This allows for VMs to be restarted safely on an alternative healthy host.

### Q: Which versions of XenServer support HA?

A: Use of High Availability requires an Advance Edition license or above – for more details on what features are available in each XenServer edition refer [here](#).

### Q: Does XenServer High Availability work with local storage?

A: To use all HA features, shared storage is required. This enables VMs to be relocated in the event of a host failure. Additionally, HA allows VMs that are stored on local storage to be marked for *automatic* restart if the host recovers after a reboot.

### Q: Can I use HA to automatically sequence the restart of recovered VMs?

A: Yes, HA configuration allows VMs to be started in a predefined order. This enables VMs that depend upon one another to be automatically sequenced.

## Performance Metrics

### Q: Do the XenServer management tools collect performance information?

A: Yes. XenServer collects processor usage, memory usage, and network I/O rates for the XenServer host, as well as for each individual VM.

### Q: How are XenServer performance metrics gathered?

A: Data for the XenServer performance metrics are collected from a variety of sources including the Xen hypervisor, standard Linux interfaces, such as proc and sysfs, and standard Windows interfaces such as WMI.

### Q: Does XenCenter display performance metrics in real-time?

A: Yes. XenCenter displays real-time performance metrics in the **Performance** tab for each running VM as well as the XenServer host. The displayed metrics can be customized

## Q: Does XenCenter store and display historic performance metrics?

A: Yes. XenServer retains the last years' worth of performance metrics (with decreasing granularity). XenCenter provides a visualization of these metrics in real-time graphical displays (for all paid-for editions of XenServer). The free version of XenServer shows 24 hours of historical data.

## Installation

### Q: Does XenServer install on top of systems that are already running an existing operating system?

A: No. XenServer installs directly on bare-metal hardware avoiding the complexity, overhead, and performance bottlenecks of an underlying operating system.

### Q: How much local storage does XenServer require for installation on the physical host system?

A: XenServer requires a minimum of 16 gigabytes of local storage on the physical host system.

### Q: Can I use PXE to perform a network installation of XenServer on the host system?

A: Yes. You can install XenServer on the host system using PXE. You can also automatically install XenServer using PXE by creating a pre-configured answer file.

### Q: Does the Xen hypervisor run on Linux?

A: No. [Xen](#) is a Type 1 hypervisor which runs directly on the host hardware (bare metal). After the hypervisor loads, it starts the privileged management domain – the [control domain](#) which contains a minimal Linux environment.

### Q: Where does XenServer get its device driver support?

A: XenServer uses the device drivers available from the Linux kernel. As a result, XenServer will run on a wide variety of hardware and storage devices. However, Citrix recommends that you use certified device drivers, refer to the [XenServer HCL](#) for more details.

## Licensing

### Q: How do I license XenServer?

- **Free Edition.** A license file (available free of charge after activating the product) is required for the Free Edition.
- **All other editions.** A Citrix License Server is required for all other editions. See the [Licensing FAQ](#) for more details.

# Technical Support

## **Q: Does Citrix provide direct technical support for XenServer?**

A: Yes, go to <http://www.citrix.com/support> for more details.

## **Q: Can I obtain technical support for XenServer and other Citrix products on a single support contract?**

A: Yes. Citrix provides Technical Support [contracts](#) that allow you to open support incidents on XenServer, as well as other Citrix products, such as XenDesktop and NetScaler. Click [here](#) for more details.

## **Q: Do I have to purchase a Citrix technical support contract at the same time when I purchase XenServer?**

A: No. You can purchase a technical support contract from Citrix either at product point-of-sale or at another time.

## **Q: Are there alternative channels for obtaining technical support for XenServer?**

A: Yes. Citrix recommends a number of alternative channels for obtaining technical support for XenServer. You can also use Citrix's [Knowledge Center](#), [forums](#) or contract with authorized XenServer [partners](#) who offer technical support services.

## **Q: Does Citrix provide technical support for the open source Xen project?**

A: No. Citrix does not provide technical support for the open source [Xen](#) project.

## **Q: Do I need to open a technical support incident with Citrix if I am experiencing a non-technical issue?**

A: No. Any non-technical issues with XenServer including, [Subscription Advantage](#) program support, [licensing](#), administrative support, and order confirmation, can be raised through [Citrix Customer Service](#).

Click [here](#) for more details on Customer Service.