

VMware GSX Server

Enterprise-Class Virtual Infrastructure for Intel-Based Servers

What Is VMware GSX Server?

VMware® GSX Server™ is enterprise-class virtual infrastructure for departmental server consolidation and streamlining development and testing operations. Full support for Microsoft® Windows® and Linux® platforms combined with advanced capabilities make VMware GSX Server the most flexible and easily deployed server virtualization product on the market. Deploy virtual infrastructure today with VMware GSX Server.

What is Virtual Machine Software?

Virtualization software simplifies computing infrastructure by partitioning and isolating servers in secure and transportable virtual machines each of which can run standard Windows, Linux, or NetWare® operating systems and applications. To ensure high performance, each virtual machine has direct access to the host machine's resources such as CPU, memory, disk, networking, and peripherals.

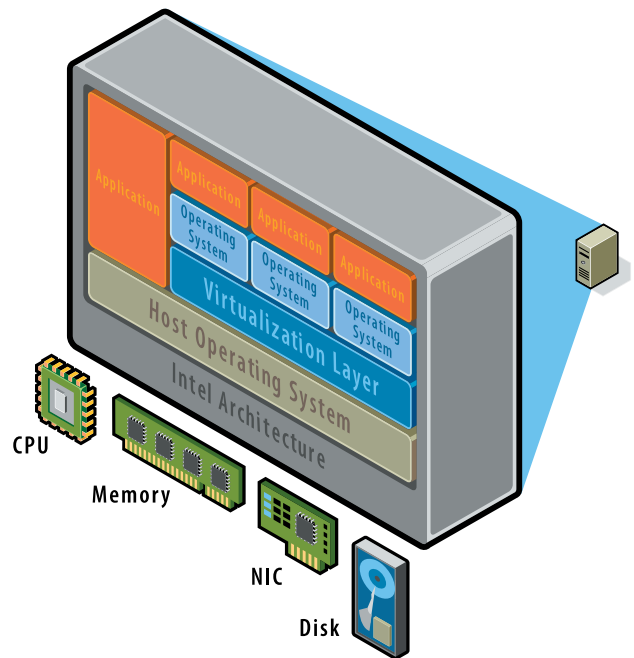
How Is VMware GSX Server Used in the Enterprise?

Enterprise customers rely on VMware GSX Server to deliver server scalability, reliability, and high availability and to maximize return on IT investments. VMware GSX Server is used across the enterprise to:

- **Streamline Development and Testing Operations.** Manage large numbers of development and testing machine environments and multiple operating systems in server-based virtual machines instead of dedicated hosts.
- **Implement Departmental Server Consolidation.** Consolidate applications and infrastructure services onto fewer highly scalable, highly reliable enterprise-class servers.
- **Provision Servers Rapidly.** Pre-configured virtual machine servers can be built once quickly and deployed anywhere immediately; provisioning a new server is as easy as copying a file, or just PXE boot a new virtual machine to download a system image.

"Without GSX Server, we would probably have at least 85 more servers than we do now since it's so hard to run more than one application on a system. Now, we can set up a new virtual machine in a couple of minutes instead of the several hours it takes for a physical server, and our end users never notice because performance is not compromised."

Ryan Goessling
Systems Software Specialist
CalPERS



The product's robust architecture and ability to integrate into Microsoft Windows and Linux host environments makes VMware GSX Server simple to deploy and manage.

How Does VMware GSX Server Work?

VMware GSX Server allows virtual machines to be remotely managed, automatically provisioned, and standardized on a secure, uniform platform.

VMware GSX Server transforms physical computers into a pool of virtual machines. Operating systems and applications are isolated in multiple virtual machines that reside on a single piece of hardware. VMware GSX Server provides broad hardware support by inheriting device support from the host.

The product's robust architecture and ability to integrate easily into Windows and Linux host environments make VMware GSX Server simple to deploy and manage. VMware GSX Server runs as an application on a host operating system to let you deploy, manage, and remotely control multiple servers running in virtual machines.

KEY FEATURES

- Shipping for over 3 years with thousands of successful customers, VMware GSX Server is the most flexible and easily deployed server virtualization product on the market
- Runs on a wider variety of Windows and Linux OSes than any server virtualization product on the market
- Integrates easily into any environment for ultimate versatility
- Installs like an application and runs on any standard x86 hardware
- Isolated virtual partitions ensure reliable server consolidation
- Secure remote management
- Full network connectivity for virtual machines
- COM and Perl APIs for automated monitoring and control
- Virtual disk files encapsulate all virtual machine data and can run on any system with VMware GSX Server, ESX Server or Workstation installed

NEW IN VMWARE GSX SERVER 3

- 10-20% improvement in disk and networking performance
- 3.6GB memory per VM to support larger server applications
- Snapshots save a point-in-time copy of the running virtual machine state.
- All new user interface
- Windows integration for performance monitoring and event logging of virtual machines
- Automatic virtual machine start-up & shutdown
- PXE provisioning for booting and installing operating systems into new virtual machines over the network
- Teamed network adapter support, SCSI backup devices
- Migrate virtual machines from GSX Server to datacenter-class VMware ESX Server
- VirtualCenter-based customization and provisioning of server images/configurations

| Why Use VMware GSX Server? | |
|---|--|
| USAGE SCENARIOS | BENEFITS |
| Streamline Development and Testing Operations Manage large numbers of development and testing machine environments and multiple operating systems in server-based virtual machines instead of dedicated hosts. | <ul style="list-style-type: none"> • Provision new development and testing machines in minutes instead of hours or days • Dramatically reduce testing cycle times • Maintain libraries of machine environments in encapsulated and hardware-independent virtual disk files • Integrates with test automation tools like IBM Rational TestManager |
| Implement Departmental Server Consolidation Consolidate applications and infrastructure services onto fewer highly scalable, highly reliable enterprise-class servers. | <ul style="list-style-type: none"> • Reduce TCO across computing infrastructure by up to 64 percent • Built-in headroom for expansion and scaling • Maximize hardware utilization • Simplify system management • VMware P2V Assistant quickly converts physical servers to VMs |
| Provision Servers Rapidly Pre-configured virtual machine servers can be built once quickly and deployed anywhere immediately; provisioning a new server is as easy as copying a file, or just PXE boot a new VM to download a system image. | <ul style="list-style-type: none"> • Keep up with demand for new servers, builds, and service packs while controlling costs • Faster failover with pre-configured, pre-tested servers in virtual machines • Improve efficiency – instant deployment on any hardware • PXE support lets your current provision tools be used with VMs |

SPECIFICATIONS

Each virtual machine provides a platform that includes:

Processor

- Intel® Pentium® II or later, or AMD Athlon or later, depending on host processor
- Single processor per virtual machine on symmetric multiprocessor systems

Memory

- Up to 3.6GB per virtual machine

IDE Drives

- Up to four devices (including disks, CD-ROM, or DVD-ROM)
- Physical disk devices or file system-based virtual disks up to 128GB
- CD-ROM can be a physical device or an ISO image file

SCSI Devices

- Up to 21 devices (including disks, CD-ROM or DVD-ROM) on 3 virtual SCSI controllers
- SCSI virtual disks up to 256GB
- LSI Logic Ultra160 or Mylex® (BusLogic) BT-958 compatible host bus adapter
- Generic SCSI device support

Graphics

- VGA and SVGA support

Floppy Drives

- Up to two 1.44MB floppy devices
- Floppy drives can be physical drives or floppy images

Serial (COM) Ports

- Up to four serial (COM) ports
- Output to serial ports, named pipes, or files

USB Ports

- Two-port USB 1.1 UHCI controller
- Supports devices including USB printers, scanners, PDAs, hard disk drives, memory card readers and still digital cameras

Printer, Keyboard and Mouse

- Up to two bi-directional printer (LPT) ports
- Output to printer ports or host files
- 104-key Windows enhanced keyboard
- PS/2 mouse

BIOS

- PhoenixBIOS™ 4.0 Release 6-based BIOS
- DMI/SMBIOS compliant for system management agent support

Ethernet Card

- Up to four virtual Ethernet cards

- AMD® PCnet™ -PCI II compatible

- PXE ROM version 2.0

- Wireless networking supported with bridged and NAT networking

Virtual Networking and File Sharing

- Nine virtual Ethernet switches (three reserved for bridged, host-only and NAT networking)
- Virtual Ethernet support includes TCP/IP, NetBEUI, Microsoft Networking, Samba, Novell® NetWare® and Network File System
- Built-in NAT supports client software using TCP/IP, FTP, DNS, HTTP and Telnet

Guest Operating Systems

- Windows Server 2003 Web, Standard, and Enterprise Editions
- Windows Server 2003 Small Business Server
- Windows 2000 Professional; Windows 2000 Server and Windows 2000 Advanced Server
- Windows NT Workstation 4.0 and Windows NT Server 4.0
- Windows XP Professional and Windows XP Home Edition
- Windows Me

- Windows 98 and Windows 98 SE

- Windows 95 (all OSR releases)

- Windows 3.1, MS-DOS 6

- Novell NetWare 4.2, 5.1, 6.0 and 6.5

- Red Hat Enterprise Linux 2.1 and 3 (AS, ES and WS)

- Red Hat Linux

- SuSE Linux Enterprise Server 7 and 8

- SuSE Linux

- Turbolinux

- Mandrake Linux

- FreeBSD

SYSTEM REQUIREMENTS

Host Operating Systems

- Runs on Microsoft Windows 2000 Server and Advanced Server; Windows Server 2003, Web, Standard, and Enterprise Editions, and Linux server host OSes

Go to: www.vmware.com/products/server/gsx_specs.html for a full list of supported devices