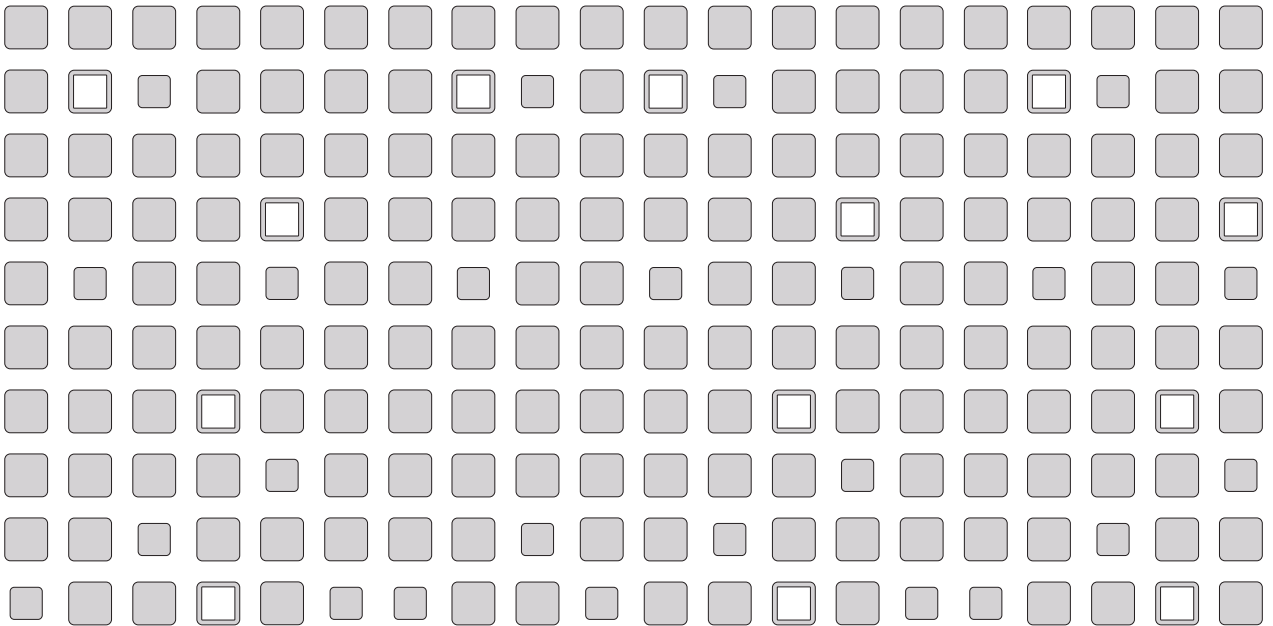


VERSION 3.0

GSX Server™ 3

Enterprise-Class Virtual Infrastructure for Intel-Based Servers

Administration Guide



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Please note that you will always find the most up-to-date technical documentation on our Web site at <http://www.vmware.com/support/>.

The VMware Web site also provides the latest product updates.

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Installing VMware GSX Server on a Linux Host

Getting started with VMware GSX Server is simple. The key steps are

1. Install the GSX Server software (including the server, VMware Management Interface, the VMware Virtual Machine Console and the VmPerl API) on the server.
2. Install the VMware Virtual Machine Console and VMware Scripting APIs on Windows or Linux clients.
3. Start the VMware Virtual Machine Console and create a virtual machine using the New Virtual Machine Wizard. See [Creating a New Virtual Machine](#) in the *VMware GSX Server Virtual Machine Guide*.
4. Power on the virtual machine and install a guest operating system in the new virtual machine. You need the installation media (CD-ROM or floppy disks) for your guest operating system. See [Installing a Guest Operating System](#) in the *VMware GSX Server Virtual Machine Guide*.
5. Install the VMware Tools package in your virtual machine for enhanced performance. See [Installing VMware Tools](#) in the *VMware GSX Server Virtual Machine Guide*.
6. Install software in your virtual machine.
7. Start using your virtual machine. Use the VMware Virtual Machine Console, VMware Management Interface and VMware Scripting APIs to manage your server host and virtual machines.

Basic Installation

A basic installation of GSX Server uses two computers — a server, hosting a number of virtual machines, and a client workstation. The client communicates with the virtual machines on the server over a TCP/IP network link.

In more complex installations, one client can run multiple VMware Virtual Machine Consoles, with each console managing multiple virtual machines on a separate server. And consoles on multiple clients can connect to virtual machines on any server.

Before you begin, be sure you have:

- A server and host operating system that meet the system requirements for running GSX Server. See [Host System Requirements on page 19](#).

- A remote management client and operating system that meet the system requirements for running the GSX Server remote management software. See [Remote Client Requirements on page 23](#).
- The installation CDs or disks for your guest operating systems.
- The GSX Server installation software. If you bought a GSX Server media kit, the installation software is on the CD in your package. If you bought the electronic distribution, the installation software is in the files you downloaded.
- Your GSX Server serial number. The serial number is included in the email message you received from VMware or from the reseller from whom you purchased GSX Server.

Also, before you install and run VMware GSX Server, check the following notes and make any necessary adjustments to the configuration of your host operating system.

- The real-time clock function must be compiled into your Linux kernel.
- GSX Server for Linux systems requires that the parallel port PC-style hardware option (`CONFIG_PARPORT_PC`) be built and loaded as a kernel module (that is, it must be set to `m` when the kernel is compiled).
- **(SuSE Linux 7.1 and later hosts):** The `inetd` process must be configured to start when the host operating system boots. See [Before You Install on a SuSE Linux 7.1 or Later Host on page 59](#).
- **(SuSE Linux Enterprise Server 8 hosts):** The `gcc` package must be installed on your host before you install GSX Server. See [Before You Install on a SuSE Linux Enterprise Server 8 Host on page 60](#).

Caution: Some operating systems, such as Red Hat Linux 7.2 and 7.3, include a firewall by default. This firewall prevents access from the VMware Virtual Machine Console and the VMware Management Interface on client computers to the GSX Server host. In order for the VMware Virtual Machine Console to connect to the host, you need to open up port 902. To connect to the host with the VMware Management Interface, you need to open up port 8333 (and port 8222 if you plan to disable SSL for the management interface).

On the Server

You can install up to three software packages on the Linux server:

- The GSX Server package for the server (from an RPM or tar archive available on the GSX Server CD-ROM or the VMware Web site). The RPM file is called `VMware-gsx-<xxx>.i386.rpm` while the tar archive is called

`VMware-gsx-<xxxx>.tar.gz`, where `<xxxx>` is a series of numbers representing the version and build numbers.

Note: The VmPerl API package is installed when you install the server software. The VmPerl API is a scripting tool that uses Perl to manage virtual machines remotely; for more information, go to www.vmware.com/support/developer/.

- The VMware Management Interface package (from a tar archive available on the GSX Server CD-ROM or the VMware Web site). This tar archive is called `VMware-mui-<xxxx>.tar.gz`.
- The VMware Virtual Machine Console package (which you download from the VMware Management Interface; the package is also available as an RPM file or tar archive in a client GZip file that also contains the VmPerl API, available on the GSX Server CD-ROM or from the VMware Web site). The RPM file is called `VMware-console-<xxxx>.i386.rpm` while the tar archive is called `VMware-console-<xxxx>.tar.gz`.

In most cases, you work directly at the server when you install the server software. You can manage and run virtual machines from the server or from any client.

On a Client Workstation

In addition to a Web browser, you can install the following packages on a client:

- The VMware Virtual Machine Console.
- The VmPerl and VmCOM Scripting APIs (the VmCOM API can be installed only on a Windows client); for more information, go to www.vmware.com/support/developer/.

These packages are available in the VMware Management Interface. If you are installing the VMware Virtual Machine Console on a Windows client, see [Installing the VMware Virtual Machine Console on a Windows Host on page 64](#).

VMware Virtual Machine Consoles can run on clients and on the server itself. Console packages are available for Windows (Windows NT 4.0, Windows 2000, Windows XP and Windows Server 2003) and Linux.

Typically, you run the console and browser on a client. The browser allows access to the VMware Management Interface. The management interface and console let you

- Monitor the operation of virtual machines.
- Start, stop, reset, suspend and resume virtual machines.
- Create and delete virtual machines.
- Configure host and virtual machine settings.

Essentially, the console allows you to manage virtual machines locally and remotely, while the management interface allows you to remotely manage the server host and all the virtual machines on the host.

The VmPerl and VmCOM Scripting APIs can connect to Linux and Windows hosts. However, the VmCOM API can run only on a Windows client. You can use the APIs to create scripts to automate management of virtual machines and the host.

Default Directories

By default, the GSX Server components are installed into the following directories:

- The server components are installed in
`/usr/bin`
- The VMware Management Interface components are installed in
`/usr/lib/vmware-mui`
- The VMware Virtual Machine Console components are installed in
`/usr/bin`
- The Apache server components are installed in
`/usr/lib/vmware-mui/apache/bin`
(so they do not conflict with existing Apache software on your server)
- The VmPerl API executable files are installed in
`/usr/bin`
- The VmPerl API library files are installed in
`/usr/lib/vmware-api`

If you installed the software from a tar installer, you can change these paths if you wish, but make note of the new paths you intend to use. The instructions in this manual make use of the default paths.

Installing the GSX Server Software on a Linux Host

The steps below describe an installation on a Red Hat Linux host from a CD-ROM. If you downloaded the software, the steps are the same except that you start from the directory where you saved the downloaded installer file, not from the CD. If you are using a different Linux distribution, some of the commands may be different.

You cannot have both VMware GSX Server and VMware Workstation on the same host machine. If you plan to install GSX Server on a host machine that already contains Workstation, the Workstation application is automatically upgraded to GSX Server.