Guest Operating System Installation Guide

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http://www.vmware.com/support/

The VMware Web site also provides the latest product updates.

If you have comments about this documentation, submit your feedback to:

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Contents

About This Book

The *Guest Operating System Installation Guide* provides users of VMware® ESX Server, VMware GSX Server, VMware Server, VMware ACE, VMware Workstation, and VMware Fusion™ information about installing guest operating systems in VMware virtual machines.

Revision History

This guide is revised with each newly supported guest operating system that requires installation instructions.

Table 1. Revision History

Revision	Description
20110310	■ Added knowledge base article information to install Boot Camp drivers on Windows 7, Windows Vista, and Windows XP. ■ Added installation instructions for Oracle Enterprise Linux 6. ■ Added installation instructions for Mac OS X Server 10.6.
20110224	■ Updated the ESX installation prerequisite for Oracle Enterprise Linux 5. ■ Added PVSCSI driver information for Windows 7 32-bit and 64-bit installation. ■ Removed minimum virtual machine disk requirements for Windows Server 2008 R2, Windows Server 2008, and Windows Vista installation. ■ Updated the installation prerequisites and added VMware Tools instructions for Red Hat Enterprise Linux 6.
20110210	■ Removed minimum disk requirements for 32-bit and 64-bit Windows 7 installation. ■ Added Solaris 10 update 9 system requirements for VMware Server or ESX Server. ■ Added known installation limitation for FreeBSD 8. ■ Added installation instructions reference link from the FreeBSD site. ■ Added installation instructions for Red Hat Enterprise Linux 6. ■ Updated the installation instructions for SUSE Linux 8.x. ■ Added installation instructions for Ubuntu 10.10.
20100713	■ Added installation instructions for Ubuntu 10.04. ■ Added installation instructions for Turbolinux 11. ■ Removed incorrect statement about 64-bit Solaris 10 guests support only for the e1000 network adapter driver.
20100610	■ Added information about FreeBSD 8. ■ Condensed installation instructions for SUSE Linux 8.x. ■ Added instructions for operating systems that the operating system vendor no longer supports.

Table 1. Revision History (Continued)

Revision	Description
20100304	■ Added information about recommended memory size for Windows 95.
	■ Added information about kernel panic error when installing 64-bit Red Hat Enterprise Linux AS 4.0, 4.1, and 4.2 on a host with AMD NPT processor.
	■ Removed incorrect instructions for enabling root on an Ubuntu Desktop 9.10 virtual machine.
	■ Condensed installation instructions for Desktop and Server releases for Linux guests, including Mandriva Corporate 4, SUSE Linux Enterprise 11, SUSE Linux Enterprise 10, Turbolinux 10, and Turbolinux 8.
	■ Condensed installation instructions for Mandrake 9.x and 8.x.
	■ Condensed installation instructions for RedHat Linux 7.x.
	■ Condensed installation instructions for FreeBSD 7.x, 6.x, 5.x, and 4.x.
20100201	■ Modified hard drive requirements for a Windows 2008 r2 virtual machine.
	■ Added information about support for the e1000 NIC driver for Windows XP on ESX 4.0 Update 1.
	■ Added instructions for eComStation 1.0.
	■ Added instructions for Mandriva 2009.
	■ Revised guest selections for creating virtual machines on SUSE Linux Enterprise Server 10 and SUSE Linux Enterprise Server 9 with OES 1 and OES2 support.
	■ Revised VMware Tools support for Solaris 10 Operating System for x86 Platforms.
20091119	Added new instructions for Windows Server 2008 r2, Oracle Enterprise Linux 4, Ubuntu 9.10, and FreeBSD 7.2.
20090902	■ Revised installation instructions for MS-DOS 2.66 and MS-DOS 3.1x.
	■ Modified instal instructions for SUSE Linux Enterprise Server 10 and 9 to use the GRUB BootLoader instead of LILO.
	■ Made minor edits to information for SUSE Linux Enterprise Server 10.
20090716	■ Reorganized the *Guest Operating System Installation Guide* to include information only pertinent to installing supported guest operating systems. To find the information and support data that was removed from this guide check these locations:
	■ *Guest Operating System Installation Guide* (Deprecated) – for information that was published in the guide prior to July 16, 2009.
	■ Online Guest/Host OS VMware Compatibility Guide – for supported guest operating system details and general information.
	■ Knowledge Base – for known issues and problems that affected the operation of a guest.
	■ Product documentation - for VMware Tools instructions and information.

Intended Audience

This guide if for those responsible for installing operating systems on VMware virtual machines.

VMware Technical Publications Glossary

VMware Technical Publications provides a glossary of terms that might be unfamiliar to you. For definitions of terms as they are used in VMware technical documentation go to http://www.vmware.com/support/pubs.

Document Feedback

VMware welcomes your suggestions for improving our documentation. If you have comments, send your feedback to docfeedback@vmware.com.

Technical Support and Education Resources

The following sections describe the technical support resources available to you. To access the current version of this book and other books, go to http://www.vmware.com/support/pubs.

Online and Telephone Support

To use online support to submit technical support requests, view your product and contract information, and register your products, go to http://www.vmware.com/support.

Customers with appropriate support contracts should use telephone support for the fastest response on priority 1 issues. Go to http://www.vmware.com/support/phone_support.html.

Support Offerings

To find out how VMware support offerings can help meet your business needs, go to http://www.vmware.com/support/services.

VMware Professional Services

VMware Education Services courses offer extensive hands-on labs, case study examples, and course materials designed to be used as on-the-job reference tools. Courses are available onsite, in the classroom, and live online. For onsite pilot programs and implementation best practices, VMware Consulting Services provides offerings to help you assess, plan, build, and manage your virtual environment. To access information about education classes, certification programs, and consulting services, go to http://www.vmware.com/services.

Installing Guest Operating Systems

The *Guest Operating System Installation Guide* includes installation instructions for installing supported guest operating systems on the following VMware products:

- VMware ESX Server 2.0 and later

- VMware ESXi/ESX 3.5 and later

- VMware Workstation 4.0 and later

- VMware Server 1.0 and later

- VMware Fusion1.0 and later

- VMware ACE 1.0 and later

- VMware GSX Server 3.0 and later

If you are using VMware® Workstation 3.x, VMware GSX Server 2.x, VMware ESX Server 1.x or an earlier VMware product, see the user's manual that came with your product for installation instructions for the guest operating systems supported by that product.

Operating systems that are not included in this guide are not supported.

See "General Installation Instructions for All VMware Products" on page 13 for information that might apply to the guest you are installing and see "Latest Updates" on page 11 for the most recent changes to this guide.

Latest Updates

Find the latest version of the guide on the VMware Web site at: http://www.vmware.com/support/pubs. Check the date on the cover page to determine if your copy of the guide is current. These are the changes or updates made to the *Guest Operating System Installation Guide* since it was last published.

- Added knowledge base article information to install Boot Camp drivers on Windows 7, Windows Vista, and Windows XP. See "Windows 7" on page 14, "Windows Vista" on page 17, and "Windows XP" on page 18.

- Added installation instructions for Oracle Enterprise Linux 6. See "Oracle Enterprise Linux 5 and Oracle Enterprise Linux 6" on page 40.

- Added installation instructions for Mac OS X Server 10.6. See "Mac OS X Server 10.5 and Mac OS X Server 10.6" on page 32.

- Updated the ESX installation prerequisite for Oracle Enterprise Linux 5. See "Oracle Enterprise Linux 5 and Oracle Enterprise Linux 6" on page 40.

- Added PVSCSI driver information for Windows 7 32-bit and 64-bit installation. See"Windows 7" on page 14.

- Removed minimum virtual machine disk requirements for Windows Server 2008 R2, Windows Server 2008, and Windows Vista installation. See "Windows Server 2008 R2" on page 16, "Windows Server 2008" on page 16, and "Windows Vista" on page 17.

- Updated the installation prerequisites and added VMware Tools instructions for Red Hat Enterprise Linux 6. See "Red Hat Enterprise Linux 6" on page 42.

- Removed minimum virtual machine disk requirements for 32-bit and 64-bit Windows 7 installation. See "Windows 7" on page 14.

- Added Solaris 10 update 9 system requirements for VMware Server or ESX Server. See "Solaris 10 Operating System x86 Platform Edition" on page 83.

- Added known installation limitation for FreeBSD 8. See "FreeBSD 8" on page 73.

- Added installation instructions reference link from the FreeBSD site. See "FreeBSD 7.x" on page 73, "FreeBSD 6.x" on page 74, "FreeBSD 5.x" on page 74, and "FreeBSD 4.x" on page 74.

- Added installation instructions for Red Hat Enterprise Linux 6. See "Red Hat Enterprise Linux 6" on page 42.

- Updated the installation instructions for SUSE Linux 8.x. See "SUSE Linux 8.x" on page 59.

- Added installation instructions for Ubuntu 10.10. See "Ubuntu 10.04 and Ubuntu 10.10" on page 62.

- Added installation instructions for Ubuntu 10.04. See "Ubuntu 10.04 and Ubuntu 10.10" on page 62.

- Added installation instructions for TurboLinux 11. See "Turbolinux 11" on page 60.

- Removed incorrect statement about 64-bit Solaris 10 guests support only for the e1000 network adapter driver. See "Solaris 10 Operating System x86 Platform Edition" on page 83.

- Added installation instructions for FreeBSD 8. See "FreeBSD 8" on page 73.

- Added information about recommended memory size for Windows 95. See "Windows 95" on page 23.

- Added information about kernel panic error when installing 64-bit Red Hat Enterprise Linux AS 4.0, 4.1, and 4.2 on a host with an AMD NPT processor. See "Red Hat Enterprise Linux 4" on page 43.

- Removed incorrect instructions for enabling root on an Ubuntu Desktop 9.10 virtual machine. See "Ubuntu 9.10" on page 63.

- Condensed installation instructions for Desktop and Server releases for Linux guests, including "Mandriva Corporate 4" on page 33, "SUSE Linux Enterprise 11" on page 54 and "SUSE Linux Enterprise 10" on page 54, "Turbolinux 10" on page 61 and "Turbolinux 8" on page 61.

- Condensed installation instructions for Mandrake 9.x and 8.x. Start with "Mandrake Linux 9.x" on page 37.

- Condensed installation instructions for RedHat Linux 7.x. See "Red Hat Linux 7" on page 49.

- Condensed installation instructions for SUSE Linux 10.x, 9.x, 8.x. Start with "SUSE Linux Enterprise 10" on page 54.

- Condensed installation instructions for FreeBSD 7.x, 6.x, 5.x, and 4.x. Start with "FreeBSD 7.x" on page 73.

Operating Systems That the Operating System Vendor No Longer Supports

For operating systems listed in this guide that the operating system vendor no longer supports, VMware might, at its sole discretion, provide support and fixes to VMware products to address problems that are exposed by running such operating systems on a VMware virtual machine. VMware is not responsible for resolving problems with or providing support or fixes to the operating system itself.

General Guidelines for Supported Guests

Configurations, support, and hardware influence how you install a supported guest operating system.

Determining Memory Settings for a Virtual Machine

When you configure the memory settings for a virtual machine, you should consult the documentation for the guest operating system you plan to run in that virtual machine. The user interface of your VMware product provides general guidelines for the amount of memory required. If the interface and the operating system documentation do not agree, you should rely on the operating system documentation.

Using Sound Adapters on GSX and VMware Servers

Sound adapters by default are not installed in a virtual machine for GSX or VMware Servers. To add a sound adapter, use the virtual machine settings editor (**VM > Settings)** after you have installed the operating system. For instructions on configuring sound for a virtual machine on a GSX or VMware Server, see the corresponding server documentation.

Running a Guest Operating System

For information about running a guest operating system and using its features, see the documentation provided by the operating system vendor.

64-Bit Linux Guests and Execute Disable Functionality

When running a 64-bit Linux guest operating system on EM64T hardware, make sure that you have Execute Disable functionality enabled in the host BIOS. This functionality helps to ensure that the Linux guest operating system runs without interruption.

VMware Tools

VMware Tools must be installed in most guest operating systems. For an overview of VMware Tools and for a list of the manuals that contain installation instructions for VMware Tools, see knowledge base article 340 at http://kb.vmware.com/kb/340.

General Installation Instructions for All VMware Products

Installing a guest operating system in a virtual machine is essentially the same as installing it on a physical computer.

Before installing a guest operating system, create a virtual machine and ensure that its devices are setup correctly. For example, install networking software when you install the guest operating system, and configure and enable the Ethernet adapter for the virtual machine.

The tool or interface you used to configure the virtual machine depends on the VMware product you are running.

A new virtual machine is like a physical computer with a blank hard disk. Before you can use it, you must partition and format the virtual disk and install an operating system. The operating system installation program might handle the partitioning and formatting steps for you.

NOTE   You should disable screen savers that might be running on the host system before you install the guest operating system.

Typical Installation

The basic steps to install a typical operating system:

1   Start your VMware product and connect to the virtual machine.

2   Insert the installation CD-ROM or disc of the guest operating system in to the CD-ROM or disc drive connected to the virtual machine.

- **ESX Server 2.x.** You must insert the installation CD-ROM or disc in the drive on the server where the virtual machine is running. You cannot use the drives on the management workstation.

- **GSX Server.** If your guest operating system requires a disc, you must insert it in the drive on the server where the virtual machine is running. You cannot use the disc drive on the management workstation.

3   Turn on your virtual machine by clicking **Power On**.

4   Follow the instructions provided by the operating system vendor.

As with physical computers, operating systems require separate licenses for each virtual machine that you run.

Some Microsoft Windows OEM discs included with new computers are customized for those computers and include device drivers and other utilities specific to the hardware system. Even if you can install that Windows operating system on your physical computer, you might not be able to install it in a virtual machine. You might need to purchase a new copy of Windows to install in a virtual machine.

5   Install VMware Tools.

ISO Installation

Rather than booting from a physical CD-ROM, you can create an ISO image file from the installation CD-ROM. You can store the ISO file on the host machine or on a network drive accessible from the host machine. Use the configuration tool for your VMware product to connect the virtual machine CD drive to the ISO image file, and turn on the virtual machine.

Using an ISO image file is convenient to install the same operating system in multiple virtual machines. It can also help you avoid a problem in host configurations, in which the virtual machine cannot boot from the installation CD-ROM.

PXE Installation

If you plan to use a PXE server to install the guest operating system over the network, you do not need the operating system installation media. When you turn on the virtual machine, the virtual machine detects the PXE server.

PXE booting is supported for guest operating systems that are listed in the VMware Guest Operating System Compatibility list and whose operating system vendor supports PXE booting of the operating system.

Windows 7

Install Windows 7 in a virtual machine using the corresponding Windows 7 distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Guidelines for Supported Guests" on page 13.

- Create and configure a new virtual machine.

- **Virtual machine.** 1GB or more of RAM for 32-bit guests and 2GB or more of RAM for 64-bit guests.

Installation Steps

1   Insert the Windows 7 CD or DVD in the CD-ROM drive.

2   Turn on the virtual machine to begin installing Windows 7.

3 (Optional) If you are using VMware Paravirtual as the default SCSI controller, you can install Windows 7 32-bit using `pvscsi-windows2003.flp` driver and Windows 7 64-bit using `pvscsi-windows2008.flp` driver.

4 Follow the prompts to complete the installation.

5 Install VMware Tools.

6 (Optional) On VMware Fusion, install Boot Camp drivers so that the guest operating system can access hardware devices on the physical machine.

Windows 7 32- bit supports only Boot Camp 3 drivers and Windows 7 64-bit requires Boot Camp drivers to be installed individually.

Refer to knowledge base article 1012885 at http://kb.vmware.com/kb/1012885 for more information.

Windows Preinstallation Environment

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Create and configure a new virtual machine. During virtual machine creation, select Windows Vista for the guest operating system. A Windows PE selection is not available.

- Download and install Windows AIK 1.1 (WAIK1.1) software (build from Windows Server 2008 kernel) from the Microsoft Web site:

  http://www.microsoft.com/downloads/details.aspx?familyid=94BB6E34-D890-4932-81A5-5B50C657DE08&displaylang=en

- Create a Windows PE 2.1 ISO image.

To Create a Windows PE 2.1 ISO Image

1 Select **Start > All Programs > Microsoft Windows AIK > Windows PE Tools Command Prompt** to open the Windows PE Tools Command Prompt.

2 Type one of the following commands to create a Windows PE build environment for an x86 or amd64 machine in the `winpe-x86` folder.

Platform	Command
32-bit	`copype x86 C:\Winpe-x86`
64-bit	`copype amd64 C:\Winpe-amd64`

3 Create a Windows PE 2.1 bootable ISO image by entering the following command:

`oscdimg -n -h -bc:\winpe-x86\etfsboot.com c:\winpe-x86\iso c:\winpe-x86\winpe-x86.iso`

Installation Steps

1 Boot the virtual machine from a Windows PE 2.1 ISO image.

After the boot process completes, a command prompt appears.

2 Use Windows PE to prepare your virtual machine to install a Windows operating system.

VMware Tools Support in Windows Preinstallation Environment

VMware Tools does not support Windows Preinstallation Environment.

Windows Recovery Environment

Read "General Installation Instructions for All VMware Products" on page 13.

For instructions specific to the Windows Recovery Environment, see the accompanying operating system documentation.

VMware Tools in Windows Recovery Environment

There is no version of VMware Tools that supports Windows Recovery Environment.

Windows Server 2008 R2

You can install the Windows Server 2008 R2 in a virtual machine using the Windows Server 2008 R2 distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.
- Create and configure a new virtual machine.
- **Virtual machine.** 512MB or more of RAM.
- **Host computer.** 512MB or more of RAM.

Installation Steps

1　Insert the Windows Server 2008 R2 CD in the CD-ROM drive.

2　Power on the virtual machine to start installing Windows Server 2008 R2.

3　Follow the prompts to complete the installation.

4　Install VMware Tools.

Windows Server 2008

You can install the Windows Server 2008 in a virtual machine using the Windows Server 2008 distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.
- Create and configure a new virtual machine.
- **Virtual machine.** 512MB or more of RAM.
- **Host computer.** 512MB or more of RAM.

Consider these support and configuration issues for Windows Server 2008:

- If an Internet connection is not available while installing a 32-bit Windows Server 2008 guest, the driver for the multimedia audio controller will not be installed. The Windows Device Manager will indicate that the driver for the multimedia audio controller is missing. To install the required driver, configure an Internet connection, and run Windows Update on the Windows Server 2008 virtual machine.

- ESX supports the Server Core role available in the Standard, Datacenter, and Enterprise editions of Windows 2008 Server. VMware Tools still apply, unless Server Core disables parts of the operating system that are specifically supported by VMware Tools. See the Microsoft Developer Network Web site for more information about Server Core: http://msdn.microsoft.com/en-us/library/ms723891(VS.85).aspx

Installation Steps

1　Insert the Windows Server 2008 CD in the CD-ROM drive.

2　Power on the virtual machine to start installing Windows Server 2008.

3   Follow the prompts to complete the installation.

4   Install VMware Tools.

Windows Vista

You can install Windows Vista in a virtual machine using the corresponding Windows Vista distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   Create and configure a new virtual machine.

■   **Virtual machine.** 512MB or more of RAM.

■   **Host computer.** 512MB or more of RAM.

Installation Steps

1   Insert the Windows Vista CD in the CD-ROM drive.

2   Power on the virtual machine to start installing Windows Vista.

3   Follow the prompts to complete the installation.

4   Install VMware Tools.

5   (Optional) On VMware Fusion, install Boot Camp drivers so that the guest operating system can access hardware devices on the physical machine.

    Refer to knowledge base article 1012885 at http://kb.vmware.com/kb/1012885 for more information.

After installation, consider the following support and configuration issues for a Windows Vista guest.

Missing Multimedia Audio Controller in a Windows Vista Guest

If an Internet connection is not available while installing a 32-bit Windows Vista guest, the driver for the multimedia audio controller is not installed. The Windows Device Manager indicates that the driver for the multimedia audio controller is missing. To install the required driver, configure an Internet connection, and run Windows Update on the Windows Vista virtual machine.

Screen Resolution in a Windows Vista Guest

After installing VMware Tools on a Windows Vista Service Pack (SP1) virtual machine, the screen resolution does not change to 1024 by 768 pixels automatically. See VMware Knowledge Base article 1004780 at http://kb.vmware.com/kb/1004780 for information on modifying the screen resolution manually.

Windows Server 2003

You can install Windows Server 2003 in a virtual machine using the corresponding Windows Server 2003 distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   Create and configure a new virtual machine.

■   If you are using the virtual LSI Logic SCSI adapter, Windows Server 2003 installs the SCSI driver when you install the guest operating system. If you are using the virtual BusLogic SCSI adapter, you need a special SCSI driver available from the download section of the VMware Web site at www.vmware.com/download. Follow the instructions on the Web site to use the driver with a fresh installation of Windows Server 2003.

■ If you have a virtual machine with a SCSI virtual disk and an earlier Windows guest operating system and want to upgrade it to Windows Server 2003, install the new SCSI driver before upgrading the operating system.

■ Manually configure the e1000 network adapter driver in ESX 3.0.2 to support Windows Server 2003 Datacenter Edition. Refer to knowledge base article 1003020 at http://kb.vmware.com/kb/1003020.

Installation Steps

1   Insert the Windows Server 2003 CD in the CD-ROM drive.

2   Power on the virtual machine to start installing Windows Server 2003.

3   If you are using the virtual BusLogic SCSI driver downloaded from the VMware Web site, you must add an additional driver.

   a   As the Windows Server 2003 installer loads, press the F6 key.

      This allows you to select the additional SCSI driver required for installation.

   b   Press S to specify the additional driver.

   c   Press Enter to continue with the installation.

4   Follow the prompts to complete the installation.

5   Install VMware Tools.

After installation, consider the following support and configuration issues for a Windows Server 2003 guest.

Missing Multimedia Audio Controller in a Windows Server 2003 Guest

If an Internet connection is not available while installing a Windows Server 2003 guest, the driver for the multimedia audio controller is not installed. The Windows Device Manager indicates that the driver for the multimedia audio controller is missing. To install the required driver, configure an Internet connection, and run Windows Update on the Windows Server 2003 virtual machine.

Windows XP

You can install Windows XP Home Edition or Professional in a virtual machine using the corresponding Windows XP distribution CD.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ Create and configure a new virtual machine

■ **ESX, VMware Workstation, VMware ACE, and GSX Server.** To use the virtual BusLogic SCSI adapter in a Windows XP virtual machine, you need a special SCSI driver available from the download section of the VMware Web site at www.vmware.com/download. Follow the instructions on the Web site to use the driver with a fresh installation of Windows XP.

■ **ESX and GSX Server.** If you are using the virtual LSI Logic SCSI adapter in a Windows XP virtual machine, download the driver from the download center at the LSI Logic Web site. Go to http://www.lsi.com/cm/DownloadSearch.do?locale=EN and download the LSI20320-R SCSI adapter driver for your guest operating system.

The LSI Logic Web site also provides a guide for installing the drivers. Go to http://www.lsi.com/. Select **Support & Downloads > Documentation**. Enter the search term *Fusion MPT* to find the *Fusion-MPT Device Management User Guide*.

- **ESX**. You can use the vmscsi SCSI driver for the virtual BusLogic SCSI adapter provided on the Windows XP Professional floppy image that is included with the ESX software. Although supported by ESX 4.0 Update 1, the e1000 NIC driver is not provided with the 32-bit version of Windows XP Professional. For support, download the driver from the Intel Web site. See knowledge base article 1016456 at http://kb.vmware.com/kb/1016456.

- If you have a virtual machine with a SCSI virtual disk and an earlier Windows guest operating system, and want to upgrade the virtual machine to Windows XP, install the new SCSI driver before upgrading the operating system.

Installation Steps

1 Insert the installation CD in the CD-ROM drive.

2 Power on the virtual machine to start installing the guest operating system.

3 If you are using the virtual BusLogic SCSI driver downloaded from the VMware Web site or the LSI Logic SCSI driver downloaded from the LSI Logic Web site, you must install an additional driver.

   a As the Windows XP installer loads, press the F6 key.

      This allows you to select the additional SCSI driver required for installation.

   b Press S to specify the additional driver, and press Enter to continue with the installation.

4 Follow the prompts to complete the installation.

5 Install VMware Tools.

6 (Optional) On VMware Fusion, install Boot Camp drivers so that the guest operating system can access hardware devices on the physical machine.

   Refer to knowledge base article 1012885 at http://kb.vmware.com/kb/1012885 for more information.

Windows 2000

You can install a supported version of Windows 2000 in a virtual machine using the corresponding Windows 2000 distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Create and configure a new virtual machine.

- **ESX Server, VirtualCenter, or vCenter Server.** If you are using the virtual LSI Logic SCSI adapter, you must download the driver from the download center at the LSI Logic Web site. Go to http://www.lsi.com/cm/DownloadSearch.do?locale=EN and download the LSI20320-R SCSI adapter driver for your guest operating system.

Installation Steps

1 Insert the Windows 2000 CD in the CD-ROM drive.

2 Power on the virtual machine to start installing Windows 2000.

3 Follow the prompts to complete the installation.

4 Install VMware Tools.

VMware Tools in a Windows 2000 Guest

After you install VMware Tools in a Windows 2000 guest, change the Windows 2000 screen area to be greater than 640x480 pixels. If you do not change it, Windows 2000 uses the standard VGA driver, and performance will suffer.

Windows NT 4.0

You can install Windows NT 4.0 (Workstation or Server) in a virtual machine using the standard Windows NT CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Create and configure a new virtual machine.

- To set up a virtual machine running Windows NT 4.0 and using multiple disks, you must first create a virtual machine with only one disk. Install Windows NT on that disk. Then use the configuration tools in your VMware product to add the additional disks.

- If you have a Windows NT 4.0 guest with a SCSI virtual disk, you cannot add both an additional SCSI disk and an IDE disk to the configuration.

- If you intend to run a Windows NT virtual machine with IDE virtual disks on a multiprocessor host computer, you might notice slower than expected disk input/output performance. For more information, see Disk Performance in Windows NT Guests on Multiprocessor Hosts in the GSX Server documentation.

Installation Steps

1 Insert the Windows NT 4.0 CD in the CD-ROM drive.

2 Power on the virtual machine to start installing Windows NT 4.0.

3 Follow the prompts to complete the installation.

4 Install VMware Tools.

After installation, consider the following configurations.

Enable DMA Transfer Support

Virtual disks support DMA transfers for better performance. You can enable DMA after installing Windows NT 4.0. DMA is always enabled on SCSI virtual disks.

Before you begin, verify that the following task is complete:

The NT Service Pack 3 or 4 CD is required to enable this option.

To Enable DMA Transfer Support

1 Power on the virtual machine.

2 Insert the SP3 or SP4 CD in the drive.

3 Run `DMACHECK.EXE` from the `\SUPPORT\UTILS\I386` folder on the CD and click **Enabled** for the IDE controller and channel that is configured with the virtual disk.

   Typically, the controller and channel is channel 0, unless the virtual machine is configured with multiple virtual disks.

4 (Optional) If you have a virtual disk and a CD-ROM attached as master and slave to the primary IDE controller (channel 0) and you want to enable DMA, power off the virtual machine and use the Configuration Editor to move the CD-ROM to the secondary IDE controller (channel 1) at IDE 1:0. Then boot the virtual machine with Windows NT, run `DMACHECK` and enable DMA for channel 0 only.

⚠ **CAUTION** Do not enable DMA for any IDE channel that has a CD-ROM drive configured for it. Enabling DMA for such a configuration causes an error.

Enabling Networking After Installing Windows NT 4.0

If networking was disabled at the time you installed Windows NT, you can enable it after installing the operating system.

Before you begin, verify that the following tasks are complete:

- Shut down Windows NT and power off the virtual machine.
- Add the network adapter to the virtual machine's configuration.

To Install the Network Driver in the Windows NT Guest OS

1 Power on the virtual machine.

2 While Windows NT is booting, insert the Windows NT 4.0 CD in the CD-ROM drive.

3 Log on to Windows NT and install the AMD PCNET driver.

   a Open the Network properties page by double-clicking the **Network** icon in Control Panel.

   b Click the **Adapters** tap to change to the Network Adapters screen.

   c Click **Add** and select **AMD PCNET Family Ethernet Adapter**.

   d Specify the \i386 folder on the CD in the path you enter (for example, type **D:\i386** if the CD is in drive D).

   e Click **Continue**.

   Windows NT setup prompts you for the Windows NT files again.

   f Click **Continue**.

   g Use the default adapter settings. Windows NT setup prompts you again for a path to the Windows NT files.

   h Click **Continue** to finish installing the driver.

VMware Tools in a Windows NT 4.0 Guest

To view VMware Tools online help in a Windows NT 4.0 guest, Windows NT 4.0 must have Internet Explorer 4.0 or greater installed.

Windows Me

You can install Windows Millennium Edition in a virtual machine using the standard Windows Me CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.
- Create and configure a new virtual machine.
- The recommended memory size for Windows Me is 64MB. If you use more than 512MB, you might encounter problems. Consult the Microsoft Web site for a workaround. See
  http://support.microsoft.com/default.aspx?scid=kb;EN-US;253912

Installation Steps

1 Insert the Windows Me CD in the CD-ROM drive.

2 Power on the virtual machine to start installing Windows Me.

3 Choose to boot from **CD-ROM**.

4 Select **Start Windows Me Setup from CD-ROM**.

   The setup program runs FDISK and reboots.

5   Choose to boot from **CD-ROM** again.

6   Select **Start Windows Me Setup from CD-ROM**.

The setup program continues installing Windows Me.

7   Follow the prompts to complete the installation.

8   Install VMware Tools.

Windows 98

You can install Windows 98 in a virtual machine using the standard Windows 98 CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   The recommended memory size for Windows 98 is 64MB. If you use more than 512MB you might encounter problems. Consult the Microsoft Web site for a workaround. See http://support.microsoft.com/default.aspx?scid=kb;EN-US;253912

Installation Steps

1   Insert the Windows 98 CD in the CD-ROM drive.

2   If you have a Windows 98 package that requires that you boot from a floppy disk, insert the boot floppy in the floppy disk drive.

a   Follow the on-screen instructions.

b   Run FDISK and FORMAT when the installer prompts you to do so

3   Power on the virtual machine.

4   Choose to boot from **CD-ROM**, and then select the option **Start Windows 98 Setup from CD-ROM**. The setup program runs FDISK and reboots.

5   Once again, choose to boot from **CD-ROM**, and then select the option **Start Windows 98 Setup from CD-ROM**. The setup program continues installing Windows 98.

6   Follow the prompts to complete the installation.

7   Install VMware Tools.

After installation, consider the following configuration.

Enabling Networking After Installing Windows 98

If networking was disabled at the time you installed Windows 98, you can enable it after the operating system has been installed.

To Enable Networking After Installing Windows 98

1   Power off the virtual machine.

2   Add a network adapter to the configuration.

3   Power on the virtual machine.

Windows 98 automatically detects an AMD PCNET Family Ethernet Adapter (PCI-ISA) and prompts the Windows 98 CD-ROM to install drivers. The default Ethernet adapter settings typically do not need to be changed.

You can use the Network icon in the Windows 98 Control Panel to view or change network settings. For example, you might want to add the TCP/IP protocol since Windows 98 does not install it by default.

Windows 95

You can install Windows 95 in a virtual machine using a standard Windows 95 boot floppy and CD-ROM.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- The recommended memory size for Windows 95 is 64MB. If you use more than 512MB you might encounter problems. Consult the Microsoft Web site for a workaround. See http://support.microsoft.com/default.aspx?scid=kb;EN-US;253912

- You must run the FDISK and FORMAT utilities on the virtual hard disk drives before running Windows 95 setup. (Some Windows 95 distributions provide instructions that do not include the steps to FDISK and FORMAT a C: drive.)

- The installation instructions are for the simplest case of one virtual IDE hard drive and one virtual IDE CD-ROM drive. If you configured the virtual machine with more than one IDE hard drive, run FDISK and FORMAT utilities on these drives before installing Windows 95. If you configured the virtual machine with more than one virtual hard drive or more than one virtual CD-ROM, you might need to use device letters that are different from those in the instructions.

Installation Steps

1   Insert the Windows 95 CD-ROM Setup Boot Disk in floppy drive A: used by your virtual machine and insert the Windows 95 CD in the CD-ROM drive.

2   Power on the virtual machine.

3   After the virtual machine boots, if you are presented with a choice of CD-ROM drivers, select the first IDE driver option available (even if your computer has a SCSI CD-ROM drive).

4   Partition the virtual disk.

    A:\> **FDISK**

5   Answer the questions.

6   If you create a primary partition that is smaller than the full size of the virtual disk, mark the partition as active.

7   Reboot Windows 95.

    a   If the cursor is not already within the virtual machine window, click in the virtual machine display, and then press Ctrl+Alt+Ins on a Windows host or Ctrl+Alt+Del on a Linux host.

    b   If prompted on reboot to select a CD-ROM driver, select the first IDE CD-ROM driver from the list.

8   Format the C: drive.

    A:\> **FORMAT C: /S**

9   Start the Windows 95 installation.

    A:\> **D:\WIN95\SETUP /IS**

10   If the virtual machine's Ethernet adapter is enabled, manually add an Ethernet driver because Windows 95 does not detect it during the Analyzing Computer phase (even if you selected the **Network Adapter** detection option).

   a   Continue with the Windows 95 installation until you get to the Windows 95 Setup Wizard/Setup Options screen. Change the default setting from **Typical** to **Custom** and click **Next** to continue.

   b   From the Network Configuration screen, click **Add**, select the **Adapter** component, select **Advanced Micro Devices** from the manufacturer window and **AMD PCNET Family Ethernet Adapter (PCI&ISA)** from the network adapter window.

   c   If you need TCP/IP networking, add it from the Network Configuration screen (Windows 95 Setup does not enable TCP/IP by default).

⚠ **CAUTION**   If you do not do this, the first phase of the Windows 95 installation does not copy some of the files it will need later, and the entire installation fails.

11   Verify that the Microsoft NetBEUI protocol is installed. It might not be installed by default.

12   Finish the Windows 95 installation.

13   Install VMware Tools.

After installation, consider the following configurations.

Enable DMA Transfers

VMware virtual disks support DMA transfers for better performance. The feature can be enabled after you have installed Windows 95 on a virtual IDE disk.

To Enable DMA Transfers

1   Right-click **My Computer** and select **Properties**.

2   From the System Properties dialog box, click the **Device Manager** tab.

3   Double-click the **Disk Drives** device category.

4   Double-click the **GENERIC IDE DISK TYPE01** device.

5   Click the **Settings** tab and select the **DMA** check box.

Enable Networking After Windows 95 Installation in a Virtual Machine

If networking was disabled at the time you installed Windows 95, you can enable it after installing the operating system. Shut down Windows 95 and power off the virtual machine. Add the network adapter to the virtual machine's configuration, and install the network driver in the Windows 95 guest operating system.

To Enable Networking After Windows 95 Installation in a Virtual Machine

1   Power on the virtual machine.

   When Windows 95 reboots, it auto-detects an AMD PCNET Family Ethernet Adapter (PCI&ISA) and prompts for the Windows 95 CD-ROM to install drivers.

2   Accept he default Ethernet adapter settings.

3   Double-click the **Network** icon in the Control Panel to view or change network settings.

   For example, you might want to add the TCP/IP protocol because Windows 95 does not install it by default.

Troubleshooting Windows 95 Installations in a Virtual Machine

An intermittent problem can occur during Windows 95 installations in a virtual machine. Shortly after the Windows 95 Setup program is started, Scandisk runs to completion, and when the Windows 95 Setup program should start its graphical user interface, the virtual machine returns to an MS-DOS prompt. Reboot the virtual machine and rerun Windows 95 Setup. You do not need to run the FDISK or FORMAT utilities on the drive again. If this problem occurs and it is reproducible, report it to VMware technical support.

MS-DOS 6.22 and Windows 3.1x

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- A new configured virtual machine.

- Full version of the Microsoft MS-DOS 6.22 installation disks.

- Windows 3.1x standard installation disks.

- **CD-ROM drivers.** By default the OAKCDROM.sys driver is provided with MS-DOS startup disks. You can also use other drivers that are available to you, for example AOATAPI.SYS, or else you can download drivers from the web. These drivers are typically loaded at system startup by making a series of entries in the C:\CONFIG.SYS and C:\AUTOEXEC.BAT machine files.

Install MS-DOS 6.22

You can install MS-DOS 6.22 in a virtual machine using the Microsoft full-version MS-DOS 6.22 installation disks. If you have the upgrade disks, you must install an earlier version of MS-DOS 6.22 before you upgrade.

NOTE   The HIMEM.SYS file is included with MS-DOS and enables upper memory for MSCDEX.EXE.

The following articles provide information for configuring networking in a DOS 6.22 environment:

- Load DOS Network drivers in virtual machine – http://communities.vmware.com/message/109168

- Create a VMware Workstation Network Boot Disk – http://communities.vmware.com/message/38060

To install MS-DOS 6.22

1   Insert the MS-DOS disk into the disk drive.

2   Power on the virtual machine and begin installing MS-DOS.

3   After the installation is complete, reboot the guest.

    The command prompt appears.

4   Verify that the following files are installed in the root directory of the boot device:

    MSCDEX.EXE, AUTOEXEC.BAT, and CONFIG.SYS file in C:\

5   Copy the OAKCDROM.SYS CD-ROM driver file to a disk.

6   Insert the disk with the driver file in the disk drive and connect it to the guest from the **VM > Settings** menu.

7   From the command prompt, copy the contents from drive A to drive C.

    A:\OAKCDROM.SYS C:DOS\

8   Open the MS-DOS AUTOEXEC.BAT file and add the following line:

    LH C:\DOS\MSCDEX.EXE /D:mscd001 /l:D

9   Save the file and exit.

10 Open the `CONFIG.SYS` file and add the following lines:

```
DEVICE=C:\DOS\HIMEM.SYS
DEVICEHIGH=C:\DOS\oakcdrom.sys /D:mscd001
LAST DRIVE=Z
```

11 Save the file and exit.

12 Restart the MS-DOS 6.22 virtual machine.

As the installation configures the `AUTOEXEC.BAT` and `CONFIG.SYS` files, the CD-ROM drive appears in the guest.

Install Windows 3.1x

VMware Workstation, VMware ACE, and GSX Server virtual machines support the networking features found in Windows 3.11 (or Windows for Workgroups). After installation, select the **Advanced Micro Devices PCNET Family (NDIS2/NDIS3)** Ethernet driver for the networking option.

The following articles provide information for configuring networking in a Win 3.1x environment:

- Load DOS Network drivers in virtual machine – http://communities.vmware.com/message/109168

- Create a VMware Workstation Network Boot Disk – http://communities.vmware.com/message/38060

To install Windows 3.1x

1 Insert the Windows 3.1x Standard Installation Disks into the disk drive. and connect it to the guest from the **VM > Settings** menu.

2 Run the SETUP program.

3 Follow the prompts to complete the installation.

4 When the installation completes, restart the guest.

Post Installation Considerations for MS-DOS 6.22 and Windows 3.1x

After you install MS-DOS 6.22, VMware recommends that you install a CPU idle program in the virtual machine. Most versions of MS-DOS 6.22 do not idle the CPU when they are idle. As a result, when you run MS-DOS 6.22 in a virtual machine, the virtual machine takes up CPU time on the host even when MS-DOS 6.22 is idle. VMware products rely on the guest operating system to use the `Halt` instruction or advanced power management to unschedule the virtual machine when it is idle.

Run Windows 3.1x in full screen mode to avoid intermittent and erratic mouse behavior.

VMware Tools in a MS-DOS 6.22 and Windows 3.1x Guest

No VMware Tools package exists for MS-DOS 6.22 or Windows 3.1x guest operating systems. As a result, Windows 3.1x is limited to VGA mode graphics, and you must always use the Ctrl+Alt key combination to release the mouse from a MS-DOS 6.22 or Windows 3.1x virtual machine.

Asianux Server 3.0

The easiest method of installing Asianux Server 3.0 in a virtual machine is to use the standard Asianux distribution CD. Installing Asianux 3.0 via the boot floppy/network method is also supported.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Create and configure a new virtual machine.

Installation Steps

1 Insert the Asianux Server 3.0 CD-ROM in the CD-ROM drive.

2 Power on the virtual machine to start installing Asianux Server 3.0.

3 Follow the prompts to complete the installation.

4 In the Package Group Selection screen, choose **Software Development** and select individual packages.

5 In the Individual Package Selection screen, use the arrow keys to navigate to **System Environment/Kernel** and press **Enter**.

   Verify that kernel-smp is deselected. No asterisk should appear between the brackets. The SMP kernel is not supported in a virtual machine. You do not need to change any other selections.

6 Select Automatic Partitioning screen, or partition the virtual disk manually if you do not want to use the Asianux defaults.

   You might see a warning that begins "The partition table on device <devicename> was unreadable. To create new partitions it must be initialized, causing the loss of ALL DATA on the drive." This does not mean that anything is wrong with the hard drive on your physical computer. It means that the virtual hard drive in your virtual machine must be partitioned and formatted.

7 Click **Yes** to partition the drive.

8 If your computer is connected to a LAN that provides DHCP support, in the Network Configuration screen, you can choose one of the following options.

   ■ Select **Use bootp/dhcp**.

   ■ Set the networking parameters manually.

9 Install VMware Tools.

VMware Tools in a Asianux Server 3.0 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

CentOS 5

The easiest method of installing CentOS 5 in a virtual machine is to use the standard CentOS distribution CD. Installing CentOS 5 via the boot floppy/network method is also supported.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ If available, select **CentOS 4/5 (32-bit)** or **CentOS 4/5 (64-bit)** option for the guest operating system when creating the virtual machine, otherwise select **Red Hat Enterprise Linux 5 (32-bit)** or **Red Hat Enterprise Linux 5 (64-bit)**.

■ Use the LSI Logic SCSI adapter. CentOS 5 does not include a driver for the BusLogic SCSI adapter.

■ On a Linux host with an XFree86 3.x X server, do not run a screen saver in the guest operating system. Guest screen savers that demand a lot of processing power can cause the X server on the host to freeze.

Installation Steps

1 Insert the CentOS 5 CD-ROM in the CD-ROM drive.

2 Power on the virtual machine to start installing CentOS 5.

3 Follow the prompts to complete the installation.

4 Do not select the Virtualization Option during the installation.

   Refer to knowledge base article 9134325 at http://kb.vmware.com/kb/9134325 for more information.

5   Select Automatic Partitioning, or partition the virtual disk manually if you do not want to use the CentOS defaults.

You might see a warning that begins "`The partition table on device <devicename> was unreadable. To create new partitions it must be initialized, causing the loss of ALL DATA on the drive.`" This does not mean that anything is wrong with the hard drive on your physical computer. It means that the virtual hard drive in your virtual machine needs to be partitioned and formatted.

6   Click **Yes** to partition the drive.

7   Install VMware Tools.

VMware Tools

Do not start the X server in the guest operating system until you install VMware Tools.

CentOS 4

The easiest method of installing CentOS 4 in a virtual machine is to use the standard CentOS distribution CD. You can also install CentOS 4 with the boot floppy/network method.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   If available, select **CentOS 4/5 (32-bit)** or **CentOS 4/5 (64-bit)** option for the guest operating system when creating the virtual machine, otherwise select **Red Hat Enterprise Linux 4 (32-bit)** or **Red Hat Enterprise Linux 4 (64-bit)**.

■   Select the LSI Logic SCSI adapter. CentOS 4 does not include a driver for the BusLogic SCSI adapter.

Installation Steps

1   Insert the CentOS 4 CD-ROM in the CD-ROM drive.

2   Power on the virtual machine to start installing CentOS 4.

3   Follow the prompts to complete the installation.

4   Select Automatic Partitioning, or partition the virtual disk manually if you do not want to use the CentOS defaults.

You might see a warning that begins "`The partition table on device <devicename> was unreadable. To create new partitions it must be initialized, causing the loss of ALL DATA on the drive.`" This does not mean that anything is wrong with the hard drive on your physical computer. It means that the virtual hard drive in your virtual machine needs to be partitioned and formatted.

5   Click **Yes** to partition the drive.

6   Install VMware Tools.

VMware Tools in a CentOS 4 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

Debian 5

The easiest method of installing Debian 5 in a virtual machine is to use the standard Debian 5 distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■ With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1 Insert the Debian 5 CD in the CD-ROM drive.

2 Power on the virtual machine.

3 Follow the prompts to complete the installation.

As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes

4 When the installation completes, in the Debian 5 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

5 Install VMware Tools using the tar installer.

Debian 4

The easiest method of installing Debian 4 in a virtual machine is to use the standard Debian 4 distribution CD.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1 Insert the Debian 4 CD in the CD-ROM drive.

2 Power on the virtual machine to start installing Debian 4.

3 Follow the prompts to complete the installation.

As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes

4 When the installation completes, in the Debian 4 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

5 Install VMware Tools using the tar installer.

eComStation 1.0

The easiest method of installing eComStation 1.0 in a virtual machine is to use the standard eComStation 1.0 distribution CD.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ When configuring the virtual machine, select eComStation for the Guest Operating System version in the New Virtual Machine Wizard. If this selection is not available, select OS/2 or Other.

■ If you have access to eComStation 1.2R in the pre-boot menu, you can select the IBM IDE driver instead of the DANIS506 driver. The DANIS506 IDE driver might not function correctly in an eComStation virtual machine.

Installation Steps

1   Insert the eComStation 1.0 CD in the CD-ROM drive.

2   Power on the virtual machine to start installing eComStation 1.0.

3   Follow the prompts to complete the installation.

4   After you power on eComStation 1.0, instead of booting the installation disk with the default values, select `boot with menu for own values`.

5   Page down to the `BOOT OPTIONS: Storage` page.

6   Use the up arrow key to select `IBM1S506/IBMATAPI` for the `(E)IDE/ATA(PI)` controller.

7   Press F10 and press Enter to save these options and continue the boot process.

VMware Tools in a eComStation 1.0

VMware Tools does not support eComStation 1.0.

IBM OS/2 Warp 4.5.2

The easiest method of installing IBM OS/2 Warp 4.5.2 in a virtual machine is to use the standard distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   Configure OS swap with at least 120MB of space.

■   Have the OS/2 Warp 4.5.2 boot disk CD and the OS/2 Warp 4.5.2 install CD available.

Consider these support and configuration issues for IBM OS/2 Warp 4.5.2:

■   Additional disks should be less than or equal to 528MB.

■   Additional disks have to be of the same type already in use by the virtual machine. For example, if an IBM OS/2 Warp guest is installed on a BusLogic disk, any additional disks should also be BusLogic disks. The same is true for LSI Logic and IDE.

Installation Steps

1   Insert the OS/2 Warp 4.5.2 boot disk in the CD drive.

2   Power on the virtual machine to start installing IBM OS/2 Warp 4.5.2.

3   Make sure `Boot from CDROM Drive` is enabled in the BIOS settings.

4   After installing the required drivers from the boot disk CD, insert the OS/2 Warp 4.5.2 install CD into the CD drive.

5   Press the F3 key to use the command line interface to partition the hard drive.

6   Partition the hard disk drive using the FDISK utility.

    Create an appropriate start volume on which to install the guest, and save the FDSIK settings.

7   Reinsert the OS/2 Warp 4.5.2 boot disk in the CD drive and reboot the guest.

8   After the initial startup completes, insert the OS/2 Warp 4.5.2 install CD in the CD drive.

    The start volume appears on the screen.

9   Select an appropriate volume to install the guest.

10   Format the file system with File Allocation Table (FAT) File System or High Performance File System (HPFS).

11 Continue the installation by selecting components, utilities, and other resources.

12 After completing the installation, reboot the guest.

Create Boot Disks

Create boot disks from the 32-bit OS/2 Warp 4.5.2 install CD, using the CDINST utility on a running OS/2 Warp 4.5.2 guest.

To Create Boot Disks

1 Power on a system in which 32-bit OS/2 Warp 4.5.2 is installed.

2 Insert the 32-bit OS/2 Warp 4.5.2 install CD into the CD drive.

3 Double-click on the CDINST utility that is located in the `root` directory.

4 Insert blank disks one at a time to create bootable disks.

   This creates bootable disks for 32-bit OS/2 Warp 4.5.2.

VMware Tools in a IBM OS/2 Wrap 4.5.2

VMware Tools does not support IBM OS/2 Warp 4.5.2.

IBM OS/2 Warp 4.0

The easiest method of installing IBM OS/2 Warp 4.0 in a virtual machine is to use the standard distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Create a minimum of 120 MB for OS swap space.

- Have both the OS/2 Warp 4.0 boot disk CD and the OS/2 Warp 4.0 install CD available for install.

- Additional disks size should be less than or equal to 528MB.

- Additional disks have to be of the same type already in use by the virtual machine. For example, if an IBM OS/2 Warp guest is installed on a BusLogic disk, any additional disks should also be BusLogic disks. The same is true for LSI Logic and IDE.

Installation Steps

1 Insert the first OS/2 Warp 4.0 installer disk in the disk drive.

2 Make sure `Boot from Removable Devices—Legacy Floppy Drives` is enabled from the BIOS settings.

3 Insert the second and third installer disks when requested.

4 After installing the required drivers from the third disk, insert the OS/2 Warp 4.0 install CD into the CD drive.

5 After installing the required drivers from the boot disk CD, insert the OS/2 Warp 4.0 install CD into the CD drive.

6 Press the F3 key to use the command line interface to partition the hard drive.

   Alternatively, press Enter to select the GUI mode.

7 Partition the hard disk drive using the FDISK utility. Create an appropriate start volume on which to install the guest, and save the FDSIK settings.

8 Re-insert the first OS/2 Warp 4.0 installer disk in the CD drive and reboot the guest.

9 Re-insert the second and third installer disks during the initial startup.

10   After the initial startup completes, insert the OS/2 Warp 4.0 install CD in the CD drive.

The start volume is displayed on the screen.

11   Select an appropriate volume to install the guest.

12   Format the file system with File Allocation Table (FAT) File System or High Performance File System (HPFS).

13   Continue the installation by selecting components, utilities, and other resources.

14   After completing the installation, reboot the guest.

Create Boot Disks

Create boot disks from the 32-bit OS/2 Warp 4.0 install CD, using the CDINST utility on a running OS/2 Warp 4.0 guest.

To Create Boot Disk

1   Power on a system in which 32-bit OS/2 Warp 4.0 is installed.

2   Insert the 32-bit OS/2 Warp 4.0 install CD into the CD drive.

3   Double-click on the CDINST utility that is located in the `root` directory.

4   Insert three blank disks, one by one, respectively.

This creates bootable disks for 32-bit OS/2 Warp 4.0.

VMware Tools in a IBM OS/2 Wrap 4.0

VMware Tools does not support IBM OS/2 Warp 4.0.

Mac OS X Server 10.5 and Mac OS X Server 10.6

You can install the Mac OS X Server 10.5 or Mac OS X Server 10.6 in a virtual machine using the installation media.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   Before creating a virtual machine, obtain the operating system and any necessary product keys for installation in that virtual machine.

■   You must have an Apple-labeled computer to install Mac OS X Server in a virtual machine.

Installation Steps

1   Insert the Mac OS X Server 10.5 or Mac OS X Server 10.6 installation media.

2   Power on the virtual machine.

3   Follow the prompts until you are prompted to select the hard disk to install the Mac OS X Server 10.5 or Mac OS X Server 10.6.

4   Select the hard disk and follow the prompts to complete the installation.

5   (Optional) If you do not find a hard disk, select **Utilities > Disk Utility**.

   a   In the left hand pane, select **VMware Virtual Disk Media**.

   b   Select the **Erase** tab and confirm that the **Format** drop-down menu includes the file system type and **Name**.

   c   Select **Erase** and wait for the process to complete.

   d   Exit the Disk Utility application.

    e   Select the hard disk that was erased.

    f   Click **Install** and follow the prompts to complete the installation.

6   Install VMware Tools.

Mandriva Corporate 4

The easiest method of installing Mandriva Corporate 4 Desktop or Server in a virtual machine is to use the standard Mandriva Linux distribution CD. You can also install Mandriva Corporate 4 with a boot floppy/network method is supported.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   During the Mandriva Corporate 4 installation, you are offered a choice of XFree86 X servers. You can choose either one, but do not run the X server. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Mandriva Corporate 4.

■   With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

■   On a Linux host with an XFree86 3.x X server, it is best not to run a screen saver in the guest operating system. Guest screen savers that demand a lot of processing power can cause the X server on the host to freeze.

Installation Steps

1   Insert the Mandriva Corporate 4 CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Use the text mode installer.

    a   At the opening screen, press F1 for options.

    b   Enter **text** for text mode.

5   When you are prompted to partition, unless you have special requirements, select **Use free space**.

6   At the Summary screen, select **Graphical Interface**, and then click **Do** to configure the graphical interface.

    Make the following selections:

■   The resolution and refresh rate you want your guest to use

■   VMware virtual video card

■   **No** when asked if you want to install updates to the packages

■   **No** when asked if you want to start X when you reboot

7   Install VMware Tools.

Mandriva Linux 2009

The easiest method of installing Mandriva Linux 2009 in a virtual machine is to use the standard Mandriva Linux distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Mandriva Linux 2009 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

- During the Mandriva Linux 2009 installation, you are offered a choice of XFree86 X servers. You can choose either one, but do not run the X server. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Mandriva Linux 2009.

- With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Mandriva Linux 2009 CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Use the text mode installer.

  a   At the opening screen, press F1 for options.

  b   Enter **text** for text mode.

5   When you are prompted to partition, unless you have special requirements, select **Use free space**.

6   At the Summary screen, select **Graphical Interface**, and then click **Do** to configure the graphical interface.

  Make the following selections:

  - The resolution and refresh rate you want your guest to use

  - VMware virtual video card

  - **No** when asked if you want to install updates to the packages

  - **No** when asked if you want to start X when you reboot

7   Install VMware Tools.

Mandriva Linux 2008

The easiest method of installing Mandriva Linux 2008 in a virtual machine is to use the standard Mandriva Linux distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Mandriva Linux 2008 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- During the Mandriva Linux 2008 installation, you are offered a choice of XFree86 X servers. You can choose either one, but do not run the X server. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Mandriva Linux 2008.

- With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Mandriva Linux 2008 CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4 Use the text mode installer.

    a At the opening screen, press F1 for options.

    b Enter **text** for text mode.

5 When you are prompted to partition, unless you have special requirements, select **Use free space**.

6 At the Summary screen, select **Graphical Interface**, and then click **Do** to configure the graphical interface.

Make the following selections:

- The resolution and refresh rate you want your guest to use

- VMware virtual video card

- **No** when asked if you want to install updates to the packages

- **No** when asked if you want to start X when you reboot

7 Install VMware Tools.

Mandriva Linux 2007

The easiest method of installing Mandriva Linux 2007 in a virtual machine is to use the standard Mandriva Linux distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Mandriva Linux 2007 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Create and configure a new virtual machine.

Consider these support and configuration issues for Mandriva Linux 2007:

- During the Mandriva Linux 2007 installation, you are offered a choice of XFree86 X servers. You can choose either one, but do not run the X server. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Mandriva Linux 2007.

- With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1 Insert the Mandriva Linux 2007 CD in the CD-ROM drive.

2 Power on the virtual machine.

3 Follow the prompts to complete the installation.

4 Use the text mode installer.

    a At the opening screen, press F1 for options.

    b Enter **text** for text mode.

5 When you are prompted to partition, unless you have special requirements, select **Use free space**.

6 At the Summary screen, select **Graphical Interface**, and then click **Do** to configure the graphical interface.

Make the following selections:

- The resolution and refresh rate you want your guest to use

- VMware virtual video card

- **No** when asked if you want to install updates to the packages

- **No** when asked if you want to start X when you reboot

7   Install VMware Tools.

Mandriva Linux 2006

The easiest method of installing Mandriva Linux 2006 in a virtual machine is to use the standard Mandriva Linux distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Mandriva Linux 2006 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Create and configure a new virtual machine.

Consider these support and configuration issues for Mandriva Linux 2006:

- During the Mandriva Linux 2006 installation, you are offered a choice of XFree86 X servers. You can choose either one, but do not run the X server. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Mandriva Linux 2006.

- With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Mandriva Linux 2006 CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Use the text mode installer.

   a   At the opening screen, press F1 for options.

   b   Enter **text** for text mode.

5   When you are prompted to partition, unless you have special requirements, select **Use free space**.

6   At the Summary screen, select **Graphical Interface**, and then click **Do** to configure the graphical interface.

   Make the following selections:

   - The resolution and refresh rate you want your guest to use

   - VMware virtual video card

   - **No** when asked if you want to install updates to the packages

   - **No** when asked if you want to start X when you reboot

7   Install VMware Tools.

Mandrake Linux 10

The easiest method of installing Mandrake Linux 10 in a virtual machine is to use the standard Mandrake Linux distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Mandrake Linux 10 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Create and configure a new virtual machine.

Consider these support and configuration issues for Mandrake Linux 10:

- During the Mandrake Linux 10 installation, you are offered a choice of XFree86 X servers. You can choose either one, but do not run the X server. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Mandrake Linux 10.

- With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1 Insert the Mandrake Linux 10 CD in the CD-ROM drive.

2 Power on the virtual machine.

3 Follow the prompts to complete the installation.

4 Use the text mode installer.

    a At the opening screen, press F1 for options.

    b Enter **text** for text mode.

5 When you are prompted to partition, unless you have special requirements, select **Use free space**.

6 At the Summary screen, select **Graphical Interface**, and then click **Do** to configure the graphical interface.

Make the following selections:

- The resolution and refresh rate you want your guest to use

- VMware virtual video card

- **No** when asked if you want to install updates to the packages

- **No** when asked if you want to start X when you reboot

7 Install VMware Tools.

Mandrake Linux 9.x

The easiest method of installing Mandrake Linux 9.x in a virtual machine is to use the standard Mandrake Linux distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Mandrake Linux 9.2 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- During the Mandrake Linux 9 installation, you are offered a choice of XFree86 X servers. You can choose either one, but do not run the X server. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Mandrake Linux 9.

- With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps for Mandrake Linux 9.2

1 Insert the Mandrake Linux 9.2 CD in the CD-ROM drive.

2 Power on the virtual machine.

3 Follow the prompts to complete the installation.

4 Click in the opening screen and press F1 to install using text mode.

5 At the command line, type **text** and press Enter.

6   In the DrakX Partitioning wizard, select **Use free space** and select **Next**.

Unless you have special disk requirements, let Mandrake Linux allocate the space.

7   When you reach the Package Group Selection screen, select the type of computer on which you installed your VMware product.

If you installed your VMware product on a laptop computer, make the following selections:

a   Click **Advanced.**

b   Select **Individual** package selection and select **Next**.

c   Scroll to **numlock** and deselect the asterisk and select **Next**.

If you do not disable numlock when you install the guest on a laptop, the number lock is always active in the guest. You cannot disable it by pressing the Num Lock key.

8   At the Summary screen, select **Graphical interface** and select **Do**.

9   Make the following selections for the graphical interface:

- A monitor for the guest

- VMware virtual video card

- XFree 4.3

- The resolution and refresh rate for the guest

- **No** to not test the configuration

- **No** to not start X when you reboot

When you complete the graphical interface selections, the Summary screen reappears.

10   In the Summary screen, select **Next**.

11   Select **No** to not install updates to the packages.

12   Select **Reboot** to complete the basic installation of the Mandrake Linux 9.2 guest operating system.

13   Install VMware Tools.

Installation Steps for Mandrake Linux 9.1 and 9.0

1   Insert the Mandrake Linux 9.1 or 9.0 CD in the CD-ROM drive.

2   Power on the virtual machine to start installing Mandrake Linux 9.1 or 9.0.

3   Follow the prompts to complete the installation. Be sure to make the choices outlined in the following steps.

4   Use the text mode installer. At the opening screen, press F1 for options, and then enter **text** for text mode.

5   Use the Expert installer.

6   In the partitioning step, unless you have special requirements, it is all right to let Mandrake Linux automatically allocate the space. Click **Use free space**.

7   **VMware GSX Server:** When selecting a boot loader, use **LILO with text menu**. Do not use the graphical version of **LILO**. It causes the virtual machine to hang.

8   Do not create a custom boot disk when prompted.

9   Near the end of the installation, after files have been copied, you reach the monitor setup screen. Select the resolution and refresh rate you want your guest to use. Select **VMware** virtual video card.

10   You are offered a choice of 2 XFree86 X servers to install. Choose **XFree 4.2.1**. This driver recognizes the VMware SVGA driver.

11   When the installer asks if you want to test the configuration, answer **No**.

12   When the installer asks whether to start X when you reboot, answer **No**.

13 When the installer asks if you want to install updates to the packages, answer **No**.

14 Install VMware Tools from the Linux console.

As you are installing and configuring VMware Tools, the configuration program asks for the location of `lspci`. When that prompt appears, enter the following path: `/usr/bin/lspcidrake`

Mandrake Linux 8.x

The easiest method of installing Mandrake Linux 8.x in a virtual machine is to use the standard Mandrake Linux distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Mandrake Linux 8 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ During the Mandrake Linux 8 installation, you are offered a choice of XFree86 X servers. You can choose either one, but do not run the X server. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Mandrake Linux 8.

■ With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps for Mandrake Linux 8.2

1 Insert the Mandrake Linux 8.2 CD in the CD-ROM drive.

2 Power on the virtual machine.

3 Use the Expert installer.

4 When you are prompted to partition, unless you have special requirements, allocate the space.

5 Select **LILO with text menu**.

Do not use the graphical version of **LILO**. It causes the virtual machine to stop responding.

6 Do not create a custom boot disk when prompted.

7 You are offered a choice of 2 XFree86 X servers to install. Choose **XFree 4.2.0**. This driver recognizes the VMware SVGA driver.

8 At the monitor setup screen, select the resolution and refresh rate you want your guest to use.

9 When the installer asks if you want to test the configuration, answer **No**.

10 When the installer asks if you want to install system updates, answer **No**.

11 When the installer asks whether to start X when you reboot, answer **No**.

12 Install VMware Tools.

Installation Steps for Mandrake Linux 8.1 and 8.0

1 Insert the Mandrake Linux 8.1 or 8.0 CD in the CD-ROM drive.

2 Power on the virtual machine.

3 Use the Expert installer.

4 When you are prompted to partition, unless you have special requirements, allocate the space.

5 Select **LILO with text menu**.

Do not use the graphical version of **LILO**. It causes the virtual machine to stop responding.

6 On the Select a Graphic Card screen, select **Other** > **Generic VGA compatible**.

7 At the monitor setup screen, select **Super VGA, 800x600 @ 56 Hz**.

8   When the installer asks whether to start X when you reboot, answer **No**.

9   Install VMware Tools from the Linux console.

10   As you are installing and configuring VMware Tools, the configuration program asks for the location of `lspci`. When that prompt appears, enter the following path: `/usr/bin/lspcidrake`

    Do not start X until you have installed VMware Tools and set up a symbolic link to the XFree86 configuration file.

After installation, consider the following configuration.

Set Up a Symbolic Link to XFree86

To Set Up a Symbolic Link to XFree86

1   Log on as root (`su –`), and then set up a symbolic link to the correct XFree86 configuration file.

```
cd /etc
ln –s /etc/X11/XF86Config.vm XF86Config
```

2   Use the `startx` command to start your X server.

Novell Linux Desktop 9

The easiest method of installing Novell Linux Desktop 9 in a virtual machine is to use the standard Novell Linux Desktop distribution CDs. The notes below describe an installation using the standard distribution CD; however, installing Novell Linux Desktop 9 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Novell Linux Desktop 9 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Install using the text mode installer. In the first installation screen, press the F2 key, use the arrow keys to select **text mode** and press Enter to select the text mode installer.

4   During final configuration, after all packages are installed, do not perform the Internet connection test.

5   Follow the prompts to complete the installation.

6   Install VMware Tools.

Oracle Enterprise Linux 5 and Oracle Enterprise Linux 6

The easiest method of installing Oracle Enterprise Linux 5 or Oracle Enterprise Linux 6 in a virtual machine is to use the standard distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Oracle Enterprise Linux 5 or Oracle Enterprise Linux 6 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   For ESX 4.0 and earlier, depending on the guest operating system you are installing, select Red Hat Enterprise Linux 5 32-bit, Red Hat Enterprise Linux 5 64-bit, Red Hat Enterprise Linux 6 32-bit, or Red Hat Enterprise Linux 6 64-bit. Oracle Enterprise Linux 5 and Oracle Enterprise Linux 6 are not listed as options.

- When creating the virtual machine, select the LSI Logic SCSI adapter. Oracle Enterprise Linux 5 does not include a driver for the BusLogic SCSI adapter.

- Configure the virtual machine with at least 512MB of memory for 32-bit and 1GB of memory for 64-bit. If the virtual machine has less than 512MB of memory, Oracle Enterprise Linux 5 or Oracle Enterprise Linux 6 display an error message when loading certain VMware drivers.

Installation Steps

1　Insert the Oracle Enterprise Linux 5 or Oracle Enterprise Linux 6 CD-ROM in the CD-ROM drive.

2　Power on the virtual machine to start installing Oracle Enterprise Linux 5 or Oracle Enterprise Linux 6.

3　Follow the prompts to complete the installation.

4　Do not select Virtualization Option during the installation

Refer to knowledge base article 9134325 at http://kb.vmware.com/kb/9134325 for more information.

5　In the Automatic Partitioning screen, allow automatic partitioning.

You might see a warning that begins "The partition table on device <devicename> was unreadable. To create new partitions it must be initialized, causing the loss of ALL DATA on the drive." This does not mean that anything is wrong with the hard drive on your physical computer. The virtual hard drive in your virtual machine needs to be partitioned and formatted.

6　Click **Yes** to partition the drive.

7　Start Oracle Enterprise Linux 6 using non-UEK (Unbreakable Enterprise Kernel).

8　Install VMware Tools.

VMware Tools in an Oracle Enterprise Linux 5 and Oracle Enterprise Linux 6 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

Oracle Enterprise Linux 4

The easiest method of installing Oracle Enterprise Linux 4 in a virtual machine is to use the standard distribution CD. The notes below describe an installation using the standard distribution CD. Installing Oracle Enterprise Linux 4 by the boot floppy/network method is also supported.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- For ESX, select Red Hat Enterprise Linux 4 32-bit or Red Hat Enterprise Linux 4 64-bit for the guest operating system. Oracle Enterprise Linux 4 is not listed as an option.

- When creating the virtual machine, be sure to select the LSI Logic SCSI adapter. Oracle Enterprise Linux 4 does not include a driver for the BusLogic SCSI adapter.

- Configure the virtual machine with at least 512MB of memory. If the virtual machine has less than 512MB of memory, Oracle Enterprise Linux 4 presents an error message as it loads certain VMware drivers.

Installation Steps

1　Insert the Oracle Enterprise Linux 4 CD-ROM in the CD-ROM drive.

2　Power on the virtual machine.

3　Follow the prompts to complete the installation. Be sure to make the choices outlined in the following steps.

4　Do not select Virtualization Option during the installation.

Refer to knowledge base article 9134325 at http://kb.vmware.com/kb/9134325 for more information.

5   In the Automatic Partitioning screen, allow automatic partitioning.

You might see a warning that begins "`The partition table on device <devicename> was unreadable. To create new partitions it must be initialized, causing the loss of ALL DATA on the drive.`" This does not mean that anything is wrong with the hard drive on your physical computer. It simply means that the virtual hard drive in your virtual machine needs to be partitioned and formatted.

6   Click **Yes** to partition the drive.

7   Install VMware Tools.

VMware Tools in an Oracle Enterprise Linux 4 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

Red Hat Enterprise Linux 6

This section contains product support, installation instructions, and known issues for the Red Hat Enterprise Linux 6 operating system.

The easiest method of installing Red Hat Enterprise Linux 6 in a virtual machine is to use the standard RedHat distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Red Hat Enterprise Linux 6 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Configure the virtual machine with at least 1GB of memory.

- When creating the virtual machine, select the LSI Logic SCSI adapter. Red Hat Enterprise Linux 6 does not include a driver for the BusLogic SCSI adapter, so do not attempt to use this HBA.

- See knowledge base article 1033654 at http://kb.vmware.com/kb/1033654 for more information on network connection failure after rebooting Red Hat Enterprise Linux 6.

Installation Steps

1   Insert the Red Hat Enterprise Linux 6 CD-ROM in the CD-ROM drive.

2   Power on the virtual machine to start installing Red Hat Enterprise Linux 6.

3   Follow the prompts to complete the installation.

4   In Storage Devices screen, reinitialize the virtual machine.

You can safely ignore the following warning message "`This device may need to be reinitialized. REINITIALIZING WILL CAUSE ALL DATA TO BE LOST!`"This does not mean that anything is wrong with the hard drive on your physical computer. The virtual hard drive in your virtual machine needs to be reinitialized.

5   Click **Re-initialize all** to continue.

6   Install VMware Tools.

VMware Tools in a Red Hat Enterprise Linux 6 Guest

VMware Tools operations are disabled on Red Hat Enterprise Linux 6 when you enable SELinux policy. See knowledge base article 1033693 at http://kb.vmware.com/kb/1033693 for more information.

Red Hat Enterprise Linux 5

This section contains product support, installation instructions, and known issues for the Red Hat Enterprise Linux 5 operating system.

The easiest method of installing Red Hat Enterprise Linux 5 in a virtual machine is to use the standard Red Hat distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Red Hat Enterprise Linux 5 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Configure the virtual machine with at least 512MB of memory. If the virtual machine has less than 512MB of memory, Red Hat Enterprise Linux 5 presents an error message as it loads certain VMware drivers.

- When creating the virtual machine, select the LSI Logic SCSI adapter. Red Hat Enterprise Linux 5 does not include a driver for the BusLogic SCSI adapter.

Installation Steps

1   Insert the Red Hat Enterprise Linux 5 CD-ROM in the CD-ROM drive.

2   Power on the virtual machine to start installing Red Hat Enterprise Linux 5.

3   Follow the prompts to complete the installation.

4   Do not select Virtualization Option during the installation.

Refer to knowledge base article 9134325 at http://kb.vmware.com/kb/9134325 for more information.

5   In the Automatic Partitioning screen, allow automatic partitioning.

You might see a warning that begins "`The partition table on device <devicename> was unreadable. To create new partitions it must be initialized, causing the loss of ALL DATA on the drive.`" This does not mean that anything is wrong with the hard drive on your physical computer. The virtual hard drive in your virtual machine needs to be partitioned and formatted.

6   Click **Yes** to partition the drive.

7   Install VMware Tools.

VMware Tools in a Red Hat Enterprise Linux 5 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

Red Hat Enterprise Linux 4

The easiest method of installing Red Hat Enterprise Linux 4 in a virtual machine is to use the standard Red Hat distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Red Hat Enterprise Linux 4 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- **VMware Workstation, VMware ACE, VMware GSX Server.** When creating the virtual machine, select the LSI Logic SCSI adapter. Red Hat Enterprise Linux 4 does not include a driver for the BusLogic SCSI adapter.

- Configure the virtual machine with at least 256MB of memory. If the virtual machine has less than 256MB of memory, Red Hat Enterprise Linux presents an error message as it loads certain VMware drivers.

- The Red Hat Enterprise Linux 4 hugemem kernel is not supported. See knowledge base article 8964517 at http://kb.vmware.com/kb/8964517.

- See knowledge base article 1018631 at http://kb.vmware.com/kb/1018631 for information about a kernel panic error that occurs when you install Red Hat Enterprise Linux 4.0, 4.1, or 4.2 on an AMD NPT processor.

- SCSI adapter support

- Red Hat Enterprise Linux 4, Update 1, 2, 3, 4, and 5: ESX Server 2.5.2, 2.5.3, 2.5.4, and 2.5.5 support only the BusLogic SCSI adapter on Red Hat Enterprise Linux 4, Update 1, 2, 3, 4, and 5.

- Red Hat Enterprise Linux 4, Update 6 and Update 7: ESX Server 2.5.2, 2.5.3, 2.5.4, and 2.5.5 support both the LSI Logic and BusLogic SCSI adapter on Red Hat Enterprise Linux 4, Update 6 and Update 7.

- VMware provides a separate driver to support the BusLogic SCSI adapter. For instructions on downloading and installing the BusLogic driver, see www.vmware.com/download/esx/drivers_tools.html.

Installation Steps

1 Insert the Red Hat Enterprise Linux 4 CD-ROM in the CD-ROM drive.

2 Power on the virtual machine to start installing Red Hat Enterprise Linux 4.

3 Follow the prompts to complete the installation. Be sure to make the choices outlined in the following steps.

4 **VMware GSX Server:** In the Package Group Selection screen, choose **Software Development** and select individual packages. In the Individual Package Selection screen, use the arrow keys to move down to **System Environment/Kernel** and press **Enter**. Be sure that kernel-smp is deselected (no asterisk should appear between the brackets). The SMP kernel is not supported in a GSX Server virtual machine. You do not need to change any other selections.

5 In the Automatic Partitioning screen, allow automatic partitioning.

You might see a warning that begins "The partition table on device <devicename> was unreadable. To create new partitions it must be initialized, causing the loss of ALL DATA on the drive." This does not mean that anything is wrong with the hard drive on your physical computer. It simply means that the virtual hard drive in your virtual machine needs to be partitioned and formatted.

6 Click **Yes** to partition the drive.

- **VMware GSX Server:** If your computer is connected to a LAN that provides DHCP support, in the Network Configuration screen, you can select the option **Use bootp/dhcp**. If you prefer, you can also set the networking parameters manually.

- **VMware ESX Server:** If you are using the vlance network adapter in your virtual machine and your computer is connected to a LAN that provides DHCP support, in the Network Configuration screen, you can select the option **Use bootp/dhcp**. If you prefer, you can also set the networking parameters manually. If you are using the vmxnet network adapter in your virtual machine, use the network configuration tools in Red Hat Enterprise Linux 4 to configure your network connection after you finish installing the guest operating system.

7 Install VMware Tools.

VMware Tools in a Red Hat Enterprise Linux 4 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

Red Hat Enterprise Linux 3

The easiest method of installing Red Hat Enterprise Linux 3 in a virtual machine is to use the standard Red Hat distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Red Hat Enterprise Linux 3 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- The Red Hat Enterprise Linux 3 hugemem kernel is not supported. See knowledge base article 8964517 at http://kb.vmware.com/kb/8964517.

- Configure the virtual machine with at least 256MB of memory. If the virtual machine has less than 256MB of memory, Red Hat Enterprise Linux presents an error message as it loads certain VMware drivers.

- With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Red Hat Enterprise Linux 3 CD-ROM in the CD-ROM drive.

2   Power on the virtual machine.

3   At the boot prompt, type **text** and press Enter.

4   Follow the prompts to complete the installation.

5   Select the language and keyboard.

6   In the Installation Type screen, choose either **Advanced Server** or **Custom** for the installation type.

7   In the Mouse Selection screen, choose one of the following options.

   - **Generic – 3 Button Mouse (PS/2)** and select the **Emulate 3 Buttons** option for three-button mouse support in the virtual machine.

   - If you have a wheel mouse, you can choose **Generic Wheel Mouse (PS/2)**.

8   **VMware GSX Server only:** In the Package Group Selection screen, choose **Software Development** and Select individual packages. In the Individual Package Selection screen, use the arrow keys to move down to **System Environment/Kernel** and press **Enter**. Be sure that kernel-smp is deselected (no asterisk should appear between the brackets). The SMP kernel is not supported in a GSX Server virtual machine. You do not need to change any other selections.

9   In the Automatic Partitioning screen, allow automatic partitioning.

   You might see a warning that says:

   ```
   The partition table on device sda was unreadable. To create new partitions, it must be
   initialized, causing the loss of ALL DATA on the drive.
   Would you like to initialize this drive?
   ```

   This does not mean that anything is wrong with the hard drive on your physical computer. The virtual hard drive in your virtual machine needs to be partitioned and formatted.

10   Select the **Yes** button and press **Enter**. sda appears in the message as the device name if the virtual disk in question is a SCSI disk; if the virtual disk is an IDE drive, hda appears in the message as the device name instead.

11   Configure the network connection.

   - **VMware GSX Server.** If your computer is connected to a LAN that provides DHCP support, in the Network Configuration screen, you can select the option **Use bootp/dhcp**.

   - **VMware ESX Server, VMware VirtualCenter, or vCenter Server.** If you are using the vlance network adapter in your virtual machine and your computer is connected to a LAN that provides DHCP support, in the Network Configuration screen, you can select the option **Use bootp/dhcp**. If you are using the vmxnet network adapter in your virtual machine, use the network configuration tools in Red Hat Enterprise Linux 3 to configure your network connection after you finish installing the guest operating system.

12   Install VMware Tools.

VMware Tools in a Red Hat Enterprise Linux 3 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

Red Hat Enterprise Linux 2.1

The easiest method of installing Red Hat Enterprise Linux 2.1 in a virtual machine is to use the standard Red Hat distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Red Hat Enterprise Linux 2.1 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ **Red Hat Enterprise Linux 2.1 WS on VMware ESX Server.** Use Update 6 or higher to eliminate conflicts with the network and SCSI adapters and installation problems on a Red Hat Enterprise Linux 2.1 WS guest operating system.

■ If you do not install Update 6 or higher, use one of the following configurations for the network and SCSI adapters:

   ■ vlance network adapter—Use an LSI Logic SCSI adapter.

   ■ vmxnet network adapter—Use an LSI Logic SCSI adapter or BusLogic adapter.

■ Do not run the X server that is installed when you set up Red Hat Enterprise Linux 2.1. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Red Hat Enterprise Linux 2.1.

■ With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

■ For additional information on using uniprocessor and multiprocessor kernels with a Red Hat Enterprise Linux 2.1 virtual machine under VMware ESX Server, see the release notes at www.vmware.com/support/esx21/doc/releasenotes_esx213.html.

Installation Steps

1 Insert the Red Hat Enterprise Linux 2.1 CD-ROM in the CD-ROM drive.

2 Power on the virtual machine.

3 At the boot prompt, type **text** and press Enter.

4 Follow the prompts to complete the installation.

5 Select the language and keyboard.

6 In the Installation Type screen, choose either **Advanced Server** or **Custom** for the installation type.

7 In the Mouse Selection screen, choose one of the following options.

   ■ **Generic – 3 Button Mouse (PS/2)** and select the **Emulate 3 Buttons** option for three-button mouse support in the virtual machine.

   ■ If you have a wheel mouse, you can choose **Generic Wheel Mouse (PS/2)**.

8 **VMware GSX Server only.** In the Package Group Selection screen, choose **Software Development** and Select individual packages. In the Individual Package Selection screen, use the arrow keys to navigate to **System Environment/Kernel** and press **Enter**. Be sure that kernel-smp is deselected (no asterisk should appear between the brackets). The SMP kernel is not supported in a GSX Server virtual machine. You do not need to change any other selections.

   VMware ESX Server, VirtualCenter, or vCenter Server if installing to an ESX Server machine without virtual SMP. In the Individual Package Selection screen, use the arrow keys to navigate to **System Environment/Kernel** and press **Enter**. Be sure that the following kernels are deselected (no asterisk should appear between the brackets):

   ■ kernel-enterprise

   ■ kernel-smp

■ kernel-summit

VMware ESX Server, VirtualCenter, or vCenter Server if installing to an ESX Server machine with virtual SMP. In the Individual Package Selection screen, use the arrow keys to navigate to **System Environment/Kernel** and press **Enter**.

■ If you are installing a multiprocessor virtual machine, be sure kernel-smp is selected.

■ If you are installing a uniprocessor virtual machine, be sure the following kernels are deselected: kernel-enterprise, kernel-smp and kernel-summit.

9 In the Automatic Partitioning screen, allow automatic partitioning.

You might see a warning that says:

```
The partition table on device sda was unreadable. To create new partitions, it must be
initialized, causing the loss of ALL DATA on the drive.
Would you like to initialize this drive?
```

This does not mean that anything is wrong with the hard drive on your physical computer. It simply means that the virtual hard drive in your virtual machine needs to be partitioned and formatted.

10 Select the **Yes** button and press **Enter**.

sda appears in the message as the device name if the virtual disk is a SCSI disk. If the virtual disk is an IDE drive, hda appears in the message as the device name instead.

11 If your computer is connected to a LAN that provides DHCP support, in the Network Configuration screen, select the option **Use bootp/dhcp**.

12 In the Video Card Configuration screen, choose **Generic SVGA**.

13 Install VMware Tools.

VMware Tools in a Red Hat Enterprise Linux 2.1 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

Red Hat Linux 9.0

The easiest method of installing Red Hat Linux 9.0 in a virtual machine is to use the standard Red Hat distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Red Hat Linux 9.0 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ You should not run the X server that is installed when you set up Red Hat Linux 9.0. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Red Hat Linux 9.0.

■ With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1 Insert the Red Hat Linux 9.0 CD-ROM in the CD-ROM drive.

2 Power on the virtual machine.

3 At the boot prompt, type **linux text** and press Enter.

IMPORTANT If you attempt to use the graphical installer, it fails and launches the text mode installer.

4 Follow the prompts to complete the installation.

5   Choose the language and keyboard.

6   In the Mouse Selection screen, choose one of the following options.

- **Generic – 3 Button Mouse (PS/2)** and select the **Emulate 3 Buttons** option for three-button mouse support in the virtual machine.

- If you have a wheel mouse, you can choose **Generic Wheel Mouse (PS/2)**.

7   In the Installation Type screen, select the installation type.

8   In the Automatic Partitioning screen, allow automatic partitioning.

You might see a warning that says:

```
Bad partition table. The partition table on device sda is corrupted. To create new
partitions, it must be initialized, causing the loss of ALL DATA on the drive.
```

This does not mean that anything is wrong with the hard drive on your physical computer. The virtual hard drive in your virtual machine needs to be partitioned and formatted.

9   Select the **Initialize** button and press **Enter**.

`sda` appears in the message as the device name if the virtual disk is a SCSI disk. If the virtual disk is an IDE drive, `hda` appears in the message as the device name.

10   If your computer is connected to a LAN that provides DHCP support, in the Network Configuration screen, select **Use bootp/dhcp**.

11   In the Video Card Configuration screen, choose **Skip X Configuration**.

12   Install VMware Tools.

VMware Tools in a Red Hat Linux 9.0 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

When you are installing VMware Tools, the configuration program asks you to specify a resolution for the guest operating system's display. Set the resolution to 1152 x 864 or lower. If you set a higher resolution, the guest operating system instead switches to a default resolution of 800 x 600.

Red Hat Linux 8.0

The easiest method of installing Red Hat Linux 8.0 in a virtual machine is to use the standard Red Hat distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Red Hat Linux 8.0 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Do not run the X server that is installed when you set up Red Hat Linux 8.0. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Red Hat Linux 8.0.

- With many Linux guest operating systems, problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Red Hat Linux 8.0 CD-ROM in the CD-ROM drive.

2   Power on the virtual machine.

3   At the boot prompt, type **`linux text`** and press Enter.

IMPORTANT   If you attempt to use the graphical installer, it fails and launches the text mode installer.

---

4   Follow the prompts to complete the installation.

5   Choose the language and keyboard.

6   In the Installation Type screen, choose either **Server** or **Workstation**.

7   In the Mouse Selection screen, choose one of the following options.

- **Generic – 3 Button Mouse (PS/2)** and select the **Emulate 3 Buttons** option for three-button mouse support in the virtual machine.

- If you have a wheel mouse, you can choose **Generic Wheel Mouse (PS/2)**.

You might see a warning that says:

```
Bad partition table. The partition table on device sda is corrupted. To create new
partitions, it must be initialized, causing the loss of ALL DATA on the drive.
```

This does not mean that anything is wrong with the hard drive on your physical computer. The virtual hard drive in your virtual machine needs to be partitioned and formatted.

8   Select the **Initialize** button and press **Enter**.

sda appears in the message as the device name if the virtual disk is a SCSI disk. If the virtual disk is an IDE drive, hda appears in the message as the device name.

9   If your computer is connected to a LAN that provides DHCP support, in the Network Configuration screen, select **Use bootp/dhcp**.

10   In the Video Card Configuration screen, choose **Skip X Configuration**.

11   Install VMware Tools.

VMware Tools in a Red Hat Linux 8.0 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

Red Hat Linux 7

Install Red Hat Linux 7 in a virtual machine using the standard Red Hat distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Do not run the X server that is installed when you set up Red Hat Linux 7. Instead, to get an accelerated SVGA X server running inside the virtual machine, you should install the VMware Tools package immediately after installing Red Hat Linux 7.

- With many Linux guest operating systems, problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Red Hat Linux 7 CD-ROM in the CD-ROM drive.

2   Power on the virtual machine.

3   At the boot prompt, type **text** followed and press Enter.

4   Follow the prompts to complete the installation.

5   Choose the language and keyboard.

6   In the Installation Type screen, choose either **Server** or **Workstation**.

The following warning might appear:

```
Bad partition table. The partition table on device sda is corrupted. To create new
partitions, it must be initialized, causing the loss of ALL DATA on the drive.
```

This does not mean that anything is wrong with the hard drive on your physical computer. The virtual hard drive in your virtual machine needs to be partitioned and formatted.

7   Click the **Initialize** button and press **Enter**.

    sda appears in the message as the device name if the virtual disk in question is a SCSI disk. If the virtual disk is an IDE drive, hda appears in the message as the device name.

8   In the Automatic Partitioning screen, select automatic partitioning.

9   If your computer is connected to a LAN that provides DHCP support, in the Network Configuration screen, you can select the option **Use bootp/dhcp**.

10 In the Mouse Selection screen, select **Generic – 3 Button Mouse (PS/2)**.

11 Select the **Emulate 3 Buttons** option for three-button mouse support in the virtual machine.

12 In the Video Card Selection screen, select the default selection.

13 During the configuration of the X server, select the defaults. T

    This X server is replaced by an X server specific to your guest operating system when you install VMware Tools in this virtual machine.

14 Continue to the Starting X screen and click **Skip**.

15 Install VMware Tools.

VMware Tools in a Red Hat Linux 7 Guest

Do not start X until you have installed VMware Tools.

Red Hat Linux 6.2

The easiest method of installing Red Hat Linux 6.2 in a virtual machine is to use the standard Red Hat distribution CD. The notes below describe an installation using the standard distribution CD; however, installing Red Hat Linux 6.2 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   During the Red Hat Linux 6.x installation, a standard VGA16 X server (without support for the VMware X server) is installed. To run an accelerated SVGA X server inside the virtual machine, install the VMware

■   With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

NOTE   Red Hat Linux 6.2 runs on Intel core processors. However, it does not run on Xeon processors that are branded Xeon, with no qualifier, or Xeon-MP. Pentium III Xeon processors are OK.

Installation Steps

1   Insert the Red Hat Linux 6.2 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   At the Red Hat 6.2 CD boot prompt, type **text** and press Enter.

4   Follow the prompts to complete the installation.

    If the virtual machine's Ethernet adapter has been enabled, the installation program detects and loads the AMD PC/Net 32 driver (no command-line parameter is necessary to load the driver).

5   If you are installing this guest with DHCP in a virtual machine with host-only networking, do not specify a host name. Click **OK** and continue. At the Network Configuration screen, click **OK** to use the default.

6   Select the standard VGA16 X server.

7   In the Choose a Card screen, select **Generic VGA compatible/Generic VGA**.

8   In the Monitor Setup screen, select **Generic Monitor**.

9   Click **Probe** in the Screen Configuration dialog box.

10 Click **OK** from the Starting X dialog box.

    After Linux is installed, the generic X server is replaced with the accelerated X server included in the VMware Tools package when you install VMware Tools.

11 Follow the prompts to complete the installation.

    Red Hat 6.2 boots and a login screen appears.

12 Install VMware Tools.

Sun Java Desktop System 2

The easiest method of installing Sun Java Desktop System 2 in a virtual machine is to use the standard Sun Java Desktop System distribution CDs. The notes below describe an installation using the standard distribution CD; however, installing Sun Java Desktop System 2 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   Create and configure a new virtual machine.

Installation Steps

1   Insert the Sun Java Desktop System 2 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Install VMware Tools.

SCO OpenServer 5.0

You can install SCO OpenServer 5.0 in a virtual machine using the standard distribution CDs, using the boot floppy/network method, and if your VMware product supports it, you can also install from a PXE server.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

Virtual disk recommendations

■   Minimum size – 1.5GiB for the SCO OpenServer 5.0 root disk.

■   `biosgeom` bootstring – Required for SCSI drives between 1 and 64GiB. (Not harmful to other drive sizes.).

■   IDE virtual disks – SCO BTLD (wd boot-time loadable driver) for improved performance and reliability.

■   Special considerations for drive sizes:

■   OpenServer 5.0.7 – wd BTLD is required for IDE disks larger than 128GiB (137GB).

■   OpenServer 5.0.6 – Cannot use IDE disks that are 128 GB or larger.

Supported virtual disks

- BusLogic SCSI – Requires SCO blc BTLD 3.05.1 or later.

- LSI SCSI – Requires SCO lsil BTLD 1.03.28 or later.

- LSI SAS – Requires LSI Logic lsil BTLD 1.04.09 or later.

- IDE

- Under 128GiB – no BTLD required.

- 128GiB or more – 5.0.7 only, requires SCO "wd" BTLD.

Supported drivers

Suitable NIC and HBA drivers are not included in the base SCO OpenServer 5.0 distributions. You can download from the Internet.

- SCO Intel PRO/1000 network adapter driver (Search for the eeG driver.)

  ftp://ftp.sco.com/pub/openserver5/drivers/

- SCO IDE BTLD, located on the SCO FTP Web site:

  ftp://ftp.sco.com/pub/openserver5/507/drivers/wd_3.0/

- SCO BusLogic BTLD 3.05.1, located on the SCO FTP Web site:

  ftp://ftp.sco.com/pub/openserver5/507/drivers/blc_3.05.1/

- SCO LSI Logic BTLD 1.03.28, located on the SCO FTP Web site:

  ftp://ftp.sco.com/pub/openserver5/507/drivers/lsil_1.03.28/

- LSI Logic LSISAS BTLD 1.04.09, located on the LSI Logic Web site:

  http://www.lsi.com/DistributionSystem/AssetDocument/files/support/ssp/fusionmpt/SCO/SCO_op5_mpt_lsil_10409.zip

  http://www.lsi.com/DistributionSystem/AssetDocument/files/support/ssp/fusionmpt/sas/linux/scounix_10409.txt

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NOTE Floppy images must be renamed with a `.flp` extension to be accepted by ESX. The location of the floppy images on the LSI Web site do not appear to be static. If you cannot locate the floppy images at the addresses VMware provided, try contacting an LSI representative

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Installation Steps

1 Insert the SCO-OSR506-InstallCD for 5.0.6, or SCO-OSR507-InstallCD for 5.0.7, in the CD-ROM drive.

2 Power on the virtual machine.

3 Install the appropriate SCSI drivers:

- IDE disk under 128GiB (137GB)

  No boot string required, press Enter.

- IDE disk 128GiB (137GB) or larger (5.0.7 only)

  `restart link="wd"`

  When prompted to replace the driver, type **r**.

- Buslogic

  `restart link="blc" biosgeom`

  When prompted to replace the driver, type **r**.

- LSI Logic SCSI or SAS

```
      restart link="lsil" biosgeom
```

4   Insert the appropriate installation disks when prompted.

5   Read and accept the license agreement.

6   Accept the default CD-ROM type and controller and drive configuration.

    The Open Server 5.0 install checks for the drive type and defaults to the configuration.

7   Follow the prompts to complete the installation.

8   Turn off the bad block scan, which is on by default for IDE disks.

    The bad block scan is not necessary on a virtual disk.

9   When selecting the mouse, press h to specify High Resolution Keyboard Mouse.

10 Follow the prompts to complete the installation.

Install Maintenance Pack 5

After installing Open Server 5.0.7, install Maintenance Pack 5 (MP5).

To Install Maintenance Pack 5

1   Power on the OpenServer 5.0.7 guest.

2   (Optional) If you used `biosgeom` during the install, boot the guest with the `defbootstr biosgeom` command.

3   Insert the SCO-OSR507-SuppCD5 CD in the CD-ROM drive.

4   Install MP5 using the Software Manager.

NOTE   After MP5 is installed, the virtual machine boots normally without requiring `biosgeom`.

VMware Tools in a SCO OpenServer 5.0 Guest

VMware Tools does not support SCO OpenServer 5.0.

SCO UnixWare 7

You can install SCO UnixWare 7 in a virtual machine using the standard distribution CDs, via the boot floppy/network method, and if your VMware product supports it, you can also install from a PXE server.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   SCO UnixWare 7 runs very slowly without assistance from CPU virtualization hardware. For near-native performance, the host must have support for nested page tables. This is found in AMD Barcelona and later CPUs with Rapid Virtualization Indexing (RVI) and in Intel Nehalem and later CPUs with Extended Page Tables (EPT).

Installation Steps

1   Insert the SCO UnixWare 7.1.1 or 7.1.4 boot CD in the CD-ROM drive.

2   Power on the virtual machine.

3   (Optional) If you selected **LSILOGIC/ LSISAS** for SCSI adapter, then select Install HBA disk.

4   Insert the HBA disk.

Installing SCO UnixWare Maintenance Packs

After installing the guest operating system, install UnixWare 7.1.1 Maintenance Pack 5 (MP5) or UnixWare 7.1.4 Maintenance Pack 4 (MP4) and patch p535283, according to SCO instructions.

The Maintenance Packs are located here:

- UnixWare 7.1.1 MP5 – `ftp://ftp.sco.com/pub/unixware7/uw711pk`

- UnixWare 7.1.4 MP4 – `ftp://ftp.sco.com/pub/unixware7/714/mp/uw714mp4/`

If you use more than one virtual CPU in this guest, install the OS Multiprocessor Support (OSMP) package, which is not automatically installed. An additional SCO CPU license is required for each additional CPU. For example, if you use four virtual CPUs, you need one operating system license and three CPU licenses.

Installing and Configuring SMP

Install OSMP and any necessary licenses according to SCO documentation.

VMware Tools in an SCO UnixWare 7 Guest

VMware Tools does not support SCO UnixWare.

SUSE Linux Enterprise 11

The easiest method of installing SUSE Linux Enterprise 11 Desktop or Server in a virtual machine is to use the standard SUSE distribution CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the SUSE Linux Enterprise 11 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Install VMware Tools.

SUSE Linux Enterprise 10

The easiest method of installing SUSE Linux Enterprise 10 Desktop or Server in a virtual machine is to use the standard SUSE distribution CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system

Installation Steps

1   Insert the SUSE Linux Enterprise 10 installation CD in the CD-ROM drive.

2   Power on the virtual machine to start installing SUSE Linux Enterprise 10.

3   In the first installation screen, use the arrow keys to select `Installation`.

4   For the Desktop, press the F2 key, use the arrow keys to choose `text mode`, and press Enter to select the text mode installer.

5   For the Server, enter the boot option `textmode=1`, and press Enter to select the text mode installer.

6   At the Installation Settings screen, go to the `Change` menu and choose `Booting`.

The Boot Loader Setup screen appears.

7   Select the boot loader type.

- For the Desktop edition, set the `Boot Loader Type` to `LILO` instead of the default `GRUB`.

- For the Server edition, set the `Boot Loader Type` to the default `GRUB`.

The installer displays a warning that indicates you might lose some settings and prompts you to select a course of action.

8   Select `Convert current configuration` and continue.

9   Select `Finish` to return to the Installation Settings screen.

10   Follow the prompts to complete the installation.

11   Install VMware Tools.

SUSE Linux Enterprise Server 9

The easiest method of installing SUSE Linux Enterprise Server 9 in a virtual machine is to use the standard distribution CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- For support for OES 1 on SUSE Linux Enterprise Server 9, select SUSE Linux Enterprise Server 9 from the Guest Operating System version list.

- Only the LSI Logic virtual SCSI adapter is supported in a SUSE Linux Enterprise Server 9 virtual machine with more than 4GB of memory on ESX Server 3.x and 4.x.

Installation Steps

1   Insert the SLES 9 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   In the first installation screen, use the arrow keys to select **Installation**, enter the boot option `textmode=1` and press Enter to select the text mode installer.

4   At the Installation Settings screen, go to the Change menu and select **Booting**.

The Boot Loader Setup screen appears.

5   Set the Boot Loader Type to **GRUB**.

6   The installer displays a warning that indicates that you might lose some settings and prompts you to select a course of action. Select **Convert current configuration** and continue.

7   Select **Finish** to return to the Installation Settings screen.

8   Follow the prompts to complete the installation.

9   Install VMware Tools.

SUSE Linux Enterprise Server 8

The easiest method of installing SUSE Linux Enterprise Server 8 in a virtual machine is to use the standard SUSE distribution CDs. The notes below describe an installation using the standard distribution CD; however, installing SUSE Linux Enterprise Server 8 via the boot floppy/network method is supported as well.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Only the BusLogic virtual SCSI adapter is supported in a SUSE Linux Enterprise Server 8 virtual machine on ESX Server 2.5.x. The LSI Logic virtual SCSI adapter is supported for SUSE Linux Enterprise Server 8 virtual machines on ESX Server 3.x. and 4.x. Only the LSI Logic virtual SCSI adapter is supported in a SUSE Linux Enterprise Server 9 virtual machine with more than 4GB of memory on ESX Server 3.x and 4.x.

Installation Steps

1   Insert the SLES 8 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to continue with the installation.

4   At the LILO screen, let the boot proceed using the default selection of **linux**.

5   At the Desktop Settings screen, select **640x480 256 colors**.

6   Follow the prompts to complete the installation.

7   Install VMware Tools.

SUSE Linux Enterprise Server 7

The easiest method of installing SUSE Linux Enterprise Server 7 (SLES 7) in a virtual machine is to use the standard SUSE distribution CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.
- During the SUSE Linux Enterprise Server 7 installation, a standard VGA16 X server should be installed. To get an accelerated SVGA X server running inside the virtual machine, install the VMware Tools package immediately after installing SUSE Linux Enterprise Server 7.

Installation Steps

1   Insert the SLES 7 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts until you get to the selection screens described in the next steps.

4   Part way through the installation, the installer reboots the virtual machine. At the LILO screen, let the boot proceed using the default selection of **linux**.

5   At the Desktop Settings screen, select **640x480 256 colors**.

6   Follow the prompts to complete the installation.

7   Install VMware Tools.

openSUSE Linux 11.x

The easiest method of installing openSUSE Linux 11.x in a virtual machine is to use the standard openSUSE Linux distribution CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.
- With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1 Insert the openSUSE Linux 11.x installation CD in the CD-ROM drive.

2 Power on the virtual machine.

3 In the first installation screen, press F3 to get boot options.

4 Press F3 again and use the arrow keys to select **text mode** and press Enter to select the text mode installer.

5 At the Installation Settings screen, select **Change**.

6 Select **Software**.

7 From the **Filter** menu, select **RPM Groups**.

8 Select the **Development** group and press **Enter** to open it.

9 Add **gcc**, **gcc-c++**, and **kernel-source** by highlighting those items in the list and pressing the spacebar.

10 At the Test Internet Connection screen, during final configuration and after all packages are installed, do not perform the Internet connection test.

11 Follow the prompts to complete the installation.

12 Install VMware Tools.

VMware Tools in an openSUSE Linux 11.x Guest

To uninstall `open-vm-tools` provided by the openSUSE 11.x distribution, see knowledge base article http://kb.vmware.com/kb/1013096.

openSUSE Linux 10.x

The easiest method of installing openSUSE Linux 10.x in a virtual machine is to use the standard SUSE Linux distribution CDs.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1 Insert the openSUSE Linux 10 installation CD in the CD-ROM drive.

2 Power on the virtual machine.

3 In the first installation screen, press F3 to get boot options.

4 Press F3 again and use the arrow keys to select **text mode** and press Enter to select the text mode installer.

5 At the Installation Settings screen, select **Change** and choose **Software**.

6 From the **Filter** menu, select **RPM Groups**.

7 Select the **Development** group and press **Enter** to open it.

8 Add **gcc**, **gcc-c++**, and **kernel-source** by highlighting those items in the list and pressing the spacebar.

9 At the Test Internet Connection screen, during final configuration and after all packages are installed, do not perform the Internet connection test.

10 Follow the prompts to complete the installation.

11 Install VMware Tools.

SUSE Linux10.x

The easiest method of installing SUSE Linux 10.x in a virtual machine is to use the standard SUSE Linux distribution CDs.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the SUSE Linux 10.x installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   On the text mode installer first installation screen, press F3 for boot options.

4   Press F3 again and use the arrow keys to select **text mode** and press **Enter** to select the text mode installer.

5   At the Installation Settings screen, select **Change**, and then select **Software**.

6   From the **Filter** menu, select **RPM Groups**.

7   Select the **Development** group, press **Enter** to open it, and add **gcc**, **gcc-c++**, and **kernel-source** by highlighting those items in the list and pressing the spacebar.

8   At the Test Internet Connection screen during final configuration after all packages are installed do not perform the Internet connection test.

9   Follow the prompts to complete the installation.

10 Install VMware Tools.

SUSE Linux 9.x

The easiest method of installing SUSE Linux 9.x in a virtual machine is to use the standard SUSE Linux distribution CDs.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

■   Only the BusLogic virtual SCSI adapter is supported in a SUSE Linux 9.x virtual machine on ESX Server 2.5.x.

Installation Steps

1   Insert the SUSE Linux 9.x installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Install using the text mode installer.

    a   In the first installation screen, select **Installation** and press F2**.**

    b   Use the arrow keys to select **Text Mode** and press **Enter** to select the text mode installer.

4   During final configuration for SUSE Linux 9.3, after all packages are installed, do not perform the Internet connection test.

5   Follow the prompts to complete the installation.

6   Install VMware Tools.

After you have installed VMware Tools, but before you start the X server, as the root user, run the SaX2 configuration utility to configure your X server.

Run SaX2 Configuration Utility

To Run SaX2 Configuration Utility

1   At a command prompt, type S*a*X2.

2   Follow the prompts in the wizard to configure your X server.

3   If you intend to connect to this virtual machine with the VMware Virtual Machine Console, configure the color resolution for 65536 (16-bit) colors or less.

4   After you run the SaX2 utility, boot the SUSE Linux 9.x virtual machine with any of the selections offered in GRUB.

SUSE Linux 8.x

The easiest method of installing SUSE Linux 8.x in a virtual machine is to use the standard SUSE distribution CDs.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. Use the LSI Logic virtual SCSI adapter with this guest operating system.

■   During the SUSE Linux 8.x installation, do not install an X server. To get an accelerated SVGA X server running inside the virtual machine, install the VMware Tools package immediately after installing SUSE Linux 8.x.

Installation Steps

1   Insert the SUSE Linux 8.x installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Install using the text mode installer.

 a   In the first installation screen, select **Installation** and press F2**.**

 b   Select **Text Mode** and press **Enter** to select the text mode installer.

5   When prompted, do not install an X server.

6   In the Configure Monitor screen, select **Text Mode Only**.

7   Click **Accept**.

8   Install VMware Tools.

After you have installed VMware Tools, but before you start the X server, as the root user, run the SaX2 configuration utility to configure your X server.

Run SaX2 Configuration Utility

To Run SaX2 Configuration Utility

1   At a command prompt, type S*a*X2.

2   Follow the prompts in the wizard to configure your X server.

3   If you intend to connect to this virtual machine with the VMware Virtual Machine Console, configure the color resolution for 65536 (16-bit) colors or less.

4   After you run the SaX2 utility, boot the SUSE Linux 8.x virtual machine with any of the selections offered in GRUB.

SUSE Linux 7.3

The easiest method of installing SUSE Linux 7.3 in a virtual machine is to use the standard SUSE distribution CDs.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

■   During the SUSE Linux 7.3 installation, do not install an X server. To get an accelerated SVGA X server running inside the virtual machine, install the VMware Tools package immediately after installing SUSE Linux 7.3.

Installation Steps

1   Insert the SUSE Linux 7.3 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Install using the text mode installer.

5   When prompted, do not install an X server. In the Configure Monitor screen, choose **No X11**.

The installer asks you to confirm.

6   Click **Continue** and finish the installation.

7   Install VMware Tools.

VMware Tools in a SUSE Linux 7.3 Guest

After you have installed VMware Tools, you can boot your SUSE 7.3 virtual machine with any of the selections offered in LILO.

Turbolinux 11

The easiest method of installing Turbolinux 11 Desktop or Server in a virtual machine is to use the standard Turbolinux distribution CDs.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Turbolinux 11 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Install VMware Tools.

Turbolinux 10

The easiest method of installing Turbolinux 10 Desktop or Server in a virtual machine is to use the standard Turbolinux distribution CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Turbolinux 10 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Install VMware Tools.

Turbolinux 8

The easiest method of installing Turbolinux 8 Workstation or Enterprise Server in a virtual machine is to use the standard Turbolinux distribution CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- With many Linux guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

- During the Turbolinux 8 installation, do not install an X server. To get an accelerated SVGA X server running inside the virtual machine, install the VMware Tools package immediately after installing Turbolinux 8.

Installation Steps

1   Insert the Turbolinux 8 installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   In the first installation screen, press the F2 key, and then press Enter to select the text mode installer.

5   When prompted, do not install an X server.

6   In the Desktop Settings screen, choose `Text Mode Only` and click **Accept**.

7   Install VMware Tools.

After you have installed VMware Tools, but before you start the X server, as the root user, run the SaX2 configuration utility to configure your X server.

Run SaX2 Configuration Utility

To Run SaX2 Configuration Utility

1   At a command prompt, type `SaX2`.

2   Follow the prompts in the wizard to configure your X server.

3   If you intend to connect to this virtual machine with the VMware Virtual Machine Console, configure the color resolution for 65536 (16-bit) colors or less.

4   After you run the SaX2 utility, boot the Turbolinux Workstation 8 virtual machine with any of the selections offered in GRUB.

Turbolinux 7.0

The easiest method of installing Turbolinux 7.0 in a virtual machine is to use the standard Turbolinux 7.0 distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

■   During the Turbolinux 7.0 installation, a standard VGA16 X server (that does not support the VMware display adapter) is installed. To get an accelerated SVGA X server running inside the virtual machine, install the VMware Tools package immediately after installing Turbolinux 7.0, before you start the X server.

Installation Steps

1   Insert the Turbolinux 7.0 CD No. 1 in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   In the Configure Monitor screen, follow the defaults to configure an X server.

This procedure is necessary even though you will install a different X server with VMware Tools after you finish installing the guest operating system.

Turbolinux 7.0 boots and a login screen appears.

5   Install VMware Tools.

VMware Tools in a Turbolinux 7.0 Guest

Do not start the X server in the guest operating system until you install VMware Tools.

Ubuntu 10.04 and Ubuntu 10.10

The easiest method of installing Ubuntu 10.04 or Ubuntu 10.10 in a virtual machine is to use the standard distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu 10.04 or Ubuntu 10.10 CD in the CD-ROM drive.

2   Power on the virtual machine.

After the Ubuntu 10.04 or Ubuntu 10.10 installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3   If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4   Follow the prompts to complete the installation.

As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5   Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 10.04 or Ubuntu 10.10 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 10.04 and Ubuntu 10.10 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Server Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1   Open a terminal window.

2   Log in as a normal user.

3   Type **sudo passwd root** to set a root password.

Ubuntu 9.10

The easiest method of installing Ubuntu 9.10 in a virtual machine is to use the standard Ubuntu 9.10 distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read

■   With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu 9.10 CD in the CD-ROM drive.

2   Power on the virtual machine.

    After the Ubuntu 9.10 installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3   If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4   Follow the prompts to complete the installation.

    As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5   Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 9.10 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 9.10 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Server Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1   Open a terminal window.

2   Log in as a normal user.

3   Type **sudo passwd root** to set a root password.

Ubuntu 9.04

The easiest method of installing Ubuntu 9.04 in a virtual machine is to use the standard Ubuntu 9.04 distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu 9.04 CD in the CD-ROM drive.

2   Power on the virtual machine.

     After the Ubuntu 9.04 installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3   If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4   Follow the prompts to complete the installation.

     As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5   Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 9.04 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 9.04 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

1   Select **System > Administration > Login Window**, and click the **Security** tab.

2   Select the **Allow local system administrator login** check box and click **Close**.

3   Select **System > Administration > Users and Groups** and click **Unlock**.

4   In the **Authenticate** window, type your password and click **Authenticate**.

5   Select root, click **Properties,** and under **Set password by hand**, establish a root password.

Ubuntu 8.10

The easiest method of installing Ubuntu 8.10 in a virtual machine is to use the standard Ubuntu 8.10 distribution CD.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1 Insert the Ubuntu 8.10 CD in the CD-ROM drive.

2 Power on the virtual machine.

After the Ubuntu 8.10 installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3 If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4 Follow the prompts to complete the installation.

As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5 Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 8.10 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 8.10 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Server Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1 Open a terminal window.

2 Log in as a normal user.

3 Type **sudo passwd root** to set a root password.

Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

1 Select **System > Administration > Login Window,** and click the **Security** tab.

2 Select the **Allow local system administrator login** check box and click **Close**.

3 Select **System > Administration > Users and Groups** and click **Unlock**.

4 In the **Authenticate** window, type your password and click **Authenticate**.

5 Select root, click **Properties**, and under **Set password by hand**, establish a root password.

Ubuntu 8.04 LTS

The easiest method of installing Ubuntu 804 LTS in a virtual machine is to use the standard Ubuntu 8.04 LTS distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu 8.04 LTS CD in the CD-ROM drive.

2   Power on the virtual machine.

After the Ubuntu 8.04 LTS installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3   If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4   Follow the prompts to complete the installation.

As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5   Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 8.04 LTS user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 8.04 LTS Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Server Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1   Open a terminal window.

2   Log in as a normal user.

3   Type **sudo passwd root** to set a root password.

Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

1   Select **System > Administration > Login Window**, and click the **Security** tab.

2   Select the **Allow local system administrator login** check box and click **Close**.

3   Select **System > Administration > Users and Groups** and click **Unlock**.

4   In the **Authenticate** window, type your password and click **Authenticate**.

5   Select root, click **Properties**, and under **Set password by hand**, establish a root password.

NOTE For Ubuntu 8.04 LTS, 8.04.1, and 8.04.2, you can install VMware Tools using the tar installer or the appropriate OSP. For a complete set of instructions for downloading, installing, and upgrading VMware Tools OSPs, see the *VMware Tools Installation Guide Operating System Specific Packages* at:
http://www.vmware.com/pdf/osp_install_guide.pdf

Ubuntu Linux 7.10

The easiest method of installing Ubuntu 7.10 in a virtual machine is to use the standard Ubuntu 7.10 distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu 7.10 CD in the CD-ROM drive.

2   Power on the virtual machine.

    After the Ubuntu 7.10 installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3   If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4   Follow the prompts to complete the installation.

    As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5   Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 7.10 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 7.10 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Server Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1   Open a terminal window.

2   Log in as a normal user.

3   Type **sudo passwd root** to set a root password.

Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

1   Select **System > Administration > Login Window**, and click the **Security** tab.

2   Select the **Allow local system administrator login** check box and click **Close**.

3   Select **System > Administration > Users and Groups** and click **Unlock**.

4   In the **Authenticate** window, type your password and click **Authenticate**.

5   Select root, click **Properties**, and under **Set password by hand**, establish a root password.

Ubuntu Linux 7.04

The easiest method of installing Ubuntu 7.04 in a virtual machine is to use the standard Ubuntu 7.04 distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu 7.04 CD in the CD-ROM drive.

2   Power on the virtual machine.

After the Ubuntu 7.04 installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3   If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4   Follow the prompts to complete the installation.

As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5   Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 7.04 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 7.04 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Server Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1   Open a terminal window.

2   Log in as a normal user.

3   Type **`sudo passwd root`** to set a root password.

Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

1   Select **System > Administration > Login Window**, and click the **Security** tab.

2   Select the **Allow local system administrator login** check box and click **Close**.

3   Select **System > Administration > Users and Groups** and click **Unlock**.

4   In the **Authenticate** window, type your password and click **Authenticate**.

5   Select root, click **Properties**, and under **Set password by hand**, establish a root password.

Ubuntu Linux 6.10

The easiest method of installing Ubuntu 6.10 in a virtual machine is to use the standard Ubuntu 6.10 distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu 6.10 CD in the CD-ROM drive.

2   Power on the virtual machine.

     After the Ubuntu 6.10 installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3   If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4   Follow the prompts to complete the installation.

     As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5   Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 6.10 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 6.10 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Server Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1   Open a terminal window.

2   Log in as a normal user.

3   Type **`sudo passwd root`** to set a root password.

Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

1   Select **System > Administration > Login Window**, and click the **Security** tab.

2   Select the **Allow local system administrator login** check box and click **Close**.

3   Select **System > Administration > Users and Groups** and click **Unlock**.

4   In the **Authenticate** window, type your password and click **Authenticate**.

5   Select root, click **Properties**, and under **Set password by hand**, establish a root password.

Ubuntu Linux 6.06

The easiest method of installing Ubuntu 6.06 in a virtual machine is to use the standard Ubuntu 6.06 distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu 6.06 CD in the CD-ROM drive.

2   Power on the virtual machine.

After the Ubuntu 6.06 installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3   If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4   Follow the prompts to complete the installation.

As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5   Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 6.06 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 6.06 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Server Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1   Open a terminal window.

2   Log in as a normal user.

3   Type **sudo passwd root** to set a root password.

Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

1   Select **System > Administration > Login Window**, and click the **Security** tab.

2   Select the **Allow local system administrator login** check box and click **Close**.

3   Select **System > Administration > Users and Groups** and click **Unlock**.

4   In the **Authenticate** window, type your password and click **Authenticate**.

5   Select root, click **Properties**, and under **Set password by hand**, establish a root password.

Ubuntu Linux 5.10

The easiest method of installing Ubuntu 5.10 in a virtual machine is to use the standard Ubuntu 5.10 distribution CD.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu 5.10 CD in the CD-ROM drive.

2   Power on the virtual machine.

     After the Ubuntu 5.10 installer copies the files it needs to the virtual disk, it ejects the installation CD and displays a message indicating that the computer will restart.

3   If the virtual machine fails to restart as expected, click the **Reset** button to restart it.

4   Follow the prompts to complete the installation.

     As the installation progresses, the message `Configuring apt/ Scanning the mirror` appears indicating that the network is being scanned. If your site uses an HTTP proxy, this message might persist for 10 minutes or longer, indicating that the installation has been delayed. If you wait, network scanning eventually stops and the installation resumes.

5   Install VMware Tools using the tar installer.

When the installation completes, in the Ubuntu 5.10 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 5.10 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

Enable Root in a Virtual Machine Running Ubuntu Server Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1   Open a terminal window.

2   Log in as a normal user.

3   Type **sudo passwd root** to set a root password.

Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

You need to set a root password to install VMware Tools.

To Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

1   Select **System > Administration > Login Window**, and click the **Security** tab.

2   Select the **Allow local system administrator login** check box and click **Close**.

3   Select **System > Administration > Users and Groups** and click **Unlock**.

4   In the **Authenticate** window, type your password and click **Authenticate**.

5   Select root, click **Properties**, and under **Set password by hand**, establish a root password.

VMware Tools and 64-bit Version of Ubuntu Linux 5.10

The 64-bit version of Ubuntu Linux 5.10 lacks the driver needed for correct operation of the X server in the virtual machine. The driver is installed when you install VMware Tools. To install VMware Tools in the 64-bit version of Ubuntu Linux 5.10, see knowledge base article at http://kb.vmware.com/kb/1900.

Ubuntu Linux 5.04

The easiest method of installing Ubuntu 5.04 in a virtual machine is to use the standard Ubuntu 5.04 distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- With many Linux guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the Ubuntu Linux CD in the CD-ROM drive.

2   Power on the virtual machine.

3   If your host computer is on a network that uses a proxy server for Internet access, enter information about the proxy server name and port at the boot prompt.

    linux http_proxy=http://<proxy_server>:<port_number>

4   Follow the prompts to complete the installation.

    You can now become root at any time using the normal su – command and the root password you just created.

5   Install VMware Tools.

When the installation completes, in the Ubuntu 5.04 user interface, choose **System > Preferences > Network Proxy** to set the HTTP proxy in the Network Proxy Preferences dialog box.

VMware Tools in an Ubuntu 5.04 Guest

To install VMware Tools using the tar installer, enable root in the Ubuntu guest.

To Enable Root in a Virtual Machine Running Ubuntu Server Edition

1   Open a terminal window.

2   Log in as a normal user.

3   Type **sudo passwd root** to set a root password.

To Enable Root in a Virtual Machine Running Ubuntu Desktop Edition

1   Select **System > Administration > Login Window**, and click the **Security** tab.

2   Select the **Allow local system administrator login** check box and click **Close**.

3   Select **System > Administration > Users and Groups** and click **Unlock**.

4   In the **Authenticate** window, type your password and click **Authenticate**.

5   Select root, click **Properties**, and under **Set password by hand**, establish a root password.

FreeBSD 8

Install FreeBSD 8 from a DVD or CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Download the ISO images from the FreeBSD Web site.

- With many FreeBSD guest operating systems, various problems have been observed when the BusLogic virtual SCSI adapter is used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

To install FreeBSD 8:

1 Insert the FreeBSD 8 CD or DVD into the CD-ROM drive.

2 Power on the virtual machine.

3 Follow the prompts to complete the installation.

4 Install VMware Tools.

Known Limitation for FreeBSD 8

Occasionally, screen distortion occurs with using GNOME with FreeBSD 8.0. See knowledge base article 1021745 at http://kb.vmware.com/kb/1021745.

Due to a third-party issue, you will experience installation problems if you install FreeBSD 8 64-bit configured with 32 vCPUs. To work around this issue, change the vCPU value to 31. For more information see, http://www.freebsd.org/cgi/query-pr.cgi?pr=148698&cat.

The FreeBSD 8.2 release includes a fix for the installation problem.

FreeBSD 7.x

Install FreeBSD 7.x from a DVD or CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Download the ISO images from the FreeBSD Web site:

- With many FreeBSD guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

To install FreeBSD 7.x:

1 Insert the FreeBSD 7.x CD or DVD into the CD-ROM drive.

2 Power on the virtual machine.

3 Follow the prompts to complete the installation.

4 Install VMware Tools.

For additional installation instructions, see http://www.freebsd.org/doc/en/books/handbook/install.html.

VMware Tools in a FreeBSD 7.x Guest

Do not start the X server in the guest operating system until you install VMware Tools.

FreeBSD 6.x

You can install FreeBSD 6.x from a DVD or CDs.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- Download the ISO images from the FreeBSD Web site:

- With many FreeBSD guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the FreeBSD CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Install VMware Tools.

For additional installation instructions, see http://www.freebsd.org/doc/en/books/handbook/install.html.

FreeBSD 5.x

The easiest method of installing FreeBSD 5.x in a virtual machine is to use the standard FreeBSD distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- With many FreeBSD guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

Installation Steps

1   Insert the FreeBSD 5.x CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Follow the prompts to complete the installation.

4   Install VMware Tools.

For additional installation instructions, see http://www.freebsd.org/doc/en/books/handbook/install.html.

FreeBSD 4.x

The easiest method of installing FreeBSD 4.x in a virtual machine is to use the standard FreeBSD distribution CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- With many FreeBSD guest operating systems, problems were observed when the BusLogic virtual SCSI adapter was used with VMware virtual machines. VMware recommends that you use the LSI Logic virtual SCSI adapter with this guest operating system.

- VMware recommends that you configure ESX Server virtual machines that use this guest operating system to use the vmx Ethernet adapter. See your product documentation for instructions.

- FreeBSD 4.6 is not supported. Use FreeBSD 4.6.2 instead. It resolves an issue that interferes with installation of FreeBSD 4.6 in a virtual machine.

Installation Steps

1   Insert the FreeBSD CD in the CD-ROM drive.

2   Power on the virtual machine to start installing FreeBSD.

3   Follow the prompts to complete the installation.

4   Install VMware Tools.

For additional installation instructions, see http://www.freebsd.org/doc/en/books/handbook/install.html.

Installation Instructions for FreeBSD 4.11, 4.10, and 4.9

After powering on the virtual machine complete this step:

In the FreeBSD Disklabel Editor step, do not use the installer's default option A partitioning. Use option C to create the mounts. In order to install VMware Tools, you need more space in /usr than is provided by the installer defaults. Include at least 4,000,000 blocks for /usr in the partitioning scheme.

Installation Instructions for FreeBSD 4.3, 4.2, 4.1, and 4.0

When you install FreeBSD 4.3, 4.2, 4.1, and 4.0, consider these support and configuration issues.

■   If you create your virtual machine with a virtual IDE disk, installation proceeds as it would on a physical machine. If you create your virtual machine with a SCSI virtual disk that is 2GB or larger you need to set the disk geometry.

■   If you install FreeBSD 4.3, 4.2, 4.1, and 4.0 as the guest operating system on a 2GB or larger SCSI virtual disk, the guest operating system does not boot unless you take special steps.

■   The guest fails to boot because the virtual disk geometry is not probed correctly by FreeBSD when you install the guest operating system. FreeBSD installs the boot loader in the wrong location on the virtual disk. When FreeBSD tries to boot, the FreeBSD boot loader asks the BIOS for important data that is now on a different section of the virtual disk, so FreeBSD cannot boot.

This problem has been fixed in FreeBSD 4.4. This and later versions correctly boot SCSI virtual disks of any size.

■   Select one of the following methods to use FreeBSD 4.3, 4.2, 4.1, and 4.0 in a virtual machine.

   ■   Use an IDE virtual disk in your virtual machine. You might need to add the IDE virtual disk to the virtual machine with the Configuration Editor.

   ■   Manually set the disk geometry when installing FreeBSD.

Set the Disk Geometry Manually

FreeBSD calculates an incorrect disk geometry before you arrive at the FDISK Partition Editor. Therefore, you must set the disk geometry manually.

To Set the Disk Geometry Manually

1   To set the disk geometry, press **G** to select the option **Set Drive Geometry**.

A dialog box appears, containing numbers like 2055/64/32. These numbers represent the number of cylinders, heads, and sectors per head. These numbers are the incorrect geometry.

2   Calculate the correct geometry.

   a   Find the total number of sectors by multiplying the number of cylinders, heads and sectors per head together.

   b   Divide the number of sectors by the correct number of heads and sectors per head.

3   Enter the correct geometry separated by slashes (/).

4   Click **OK**.

5   Follow the prompts to complete the installation.

NetWare 6.5 Server

You can install NetWare 6.5 in a virtual machine using the standard Novell NetWare 6.5 Operating System and Product CD-ROMs.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   When you create a virtual machine for NetWare 6.5 with Novell Open Enterprise Server on an ESX Server, select **Novell NetWare** for the guest operating system and **Novell NetWare 6.x** for the version.

■   VMware recommends you install NetWare 6.5 on a computer with at least 512MB of memory.

■   **Guests without Support Pack 1.** Read the Novell technical information document at support.novell.com/cgi-bin/search/searchtid.cgi?/2967370.htm. This document describes the steps necessary to download and install a NetWare patch required when you install a NetWare 6.5 Server guest operating system without SP1.

■   When you configure a virtual machine for a NetWare 6.5 guest, use the virtual LSI Logic SCSI adapter. NetWare 6.5 does not include a driver for the virtual BusLogic SCSI adapter.

Installation Steps

1   Insert the Novell NetWare 6.5 Product CD in the CD-ROM drive.

2   Power on the virtual machine.

A few prompts appear before you reach the license agreement.

3   Read and accept the license agreement.

4   Accept the defaults for installing NetWare, the CD-ROM drive type, how to restore the floppy drive and the run mode, and then continue.

5   When prompted, choose **IDE CD-ROM**.

6   Create a new boot partition.

The guest operating system reboots. The installation continues.

7   **VMware ESX Server:** Jump to Step 8.

VMware Workstation, VMware ACE, and VMware GSX Serve. To configure IP networking, do one of the following.

■   For bridged networking for the virtual machine, enter its IP address.

When NetWare tries to load the LAN driver (using `pcntnw.lan`), it fails because it broadcasts for its own IP address. This behavior causes IP networking to fail.

To work around this, open the System Console (press Ctrl+Esc) and type the following command:

`set allow ip address duplicates=on`

Press Alt+Esc to return to the installation.

■ For host-only networking for the virtual machine, look up the host machine's IP address.

At a command prompt on a Windows host, type:

ipconfig /all

At a command prompt on a Linux host, type:

ifconfig

Note the host's IP address for VMnet1 and change the last octet so that it is greater than the last octet in the IP address of the host.

For example, if the host IP address is 192.168.160.1, the virtual machine's IP address is 192.168.160.###, where ### is any number greater than 1 and less than 128.

For the subnet mask, enter **255.255.255.0**.

For the router gateway, enter the host's IP address (192.168.160.1 in the example).

■ For network address translation (NAT) for the virtual machine, look up the host machine's IP address.

At a command prompt on a Windows host, type

ipconfig /all

At a command prompt on a Linux host, type

ifconfig

Note the host's IP address for VMnet8 and change the last octet so it is greater than the last octet in the IP address of the host.

For example, if the host IP address is 192.168.160.1, the virtual machine's IP address is 192.168.160.###, where ### is any number greater than 2 and less than 128.

For the subnet mask, enter **255.255.255.0**.

For the router gateway, enter the NAT service's IP address (192.168.160.2 in our example).

Note that with Network Address Translation, there are 2 IP addresses in use on the host:

■ The IP address assigned to the interface for VMnet8 (which shows up in the `ipconfig` output with a .1 in the last octet).

■ The IP address used by the NAT device itself (which always uses .2 as the last octet).

8 Follow the prompts to complete the installation.

9 Install VMware Tools, which installs and loads the CPU idler program.

VMware Tools in a NetWare 6.6 Server Guest

Installing VMware Tools also installs and loads the CPU idle program. NetWare servers do not idle the CPU when the operating system is idle. As a result, a virtual machine takes CPU time from the host regardless of whether the NetWare server software is idle or busy. To prevent unnecessary slowdowns, VMware recommends that, after you install VMware Tools, you keep the NetWare CPU idle program loaded.

NetWare 6.0 Server

You can install NetWare 6.0 in a virtual machine using the standard Novell NetWare 6.0 CD-ROM.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ VMware recommends you install NetWare 6.0 on a computer with at least 256MB of memory.

- In the NetWare installation process, you must boot from the installation CD twice—once to format the virtual machine's disk drive, and a second time to install files from the CD.

  On the reboot, you see the message `Operating System not found` and a dialog box with the message `No bootable CD, floppy or hard disk was detected`.

  To boot from the CD the second time, change the boot order.

  As the virtual machine boots, click inside the virtual machine window. When the VMware logo appears, press Esc. Use the arrow keys to select the CD drive as the boot device, and then press Enter.

- When you configure a virtual machine for a NetWare 6.0 guest, use the virtual LSI Logic SCSI adapter. NetWare 6.0 does not include a driver for the virtual BusLogic SCSI adapter.

Installation Steps

1   Insert the NetWare 6.0 Server CD in the CD-ROM drive.

2   Power on the virtual machine.

3   Read and accept the license agreement.

4   When prompted, choose **IDE CD-ROM**.

5   Create a new boot partition.

    The guest operating system reboots.

6   Configure IP networking.

    - For bridged networking for the virtual machine, enter its IP address.

      When NetWare tries to load the LAN driver (using `pcntnw.lan`), it fails because it broadcasts for its own IP address. This causes IP networking to fail.

      To work around this, open the System Console (press Ctrl+Esc) and type

      `set allow ip address duplicates=on`

      Press Alt+Esc to return to the installation.

    - For host-only networking for the virtual machine, look up the host machine's IP address.

      At a command prompt on a Windows host, type:

      `ipconfig /all`

      At a command prompt on a Linux host, type:

      `ifconfig`

      Note the host's IP address for VMnet1 and change the last octet so it is greater than the last octet in the IP address of the host.

      For example, if the host IP address is 192.168.160.1, the virtual machine's IP address is 192.168.160.###, where ### is any number greater than 1 and less than 128.

      For the subnet mask, enter **`255.255.255.0`**.

      For the router gateway, enter the host's IP address (192.168.160.1 in this example).

- If you chose network address translation (NAT) for the virtual machine, look up the host machine's IP address.

  At a command prompt on a Windows host, type:

  `ipconfig /all`

  At a command prompt on a Linux host, type:

  `ifconfig`

  Note the host's IP address for VMnet8 and change the last octet so it is greater than the last octet in the IP address of the host.

  For example, if the host IP address is 192.168.160.1, the virtual machine's IP address is 192.168.160.###, where ### is any number greater than 2 and less than 128.

  For the subnet mask, enter `255.255.255.0`.

  For the router gateway, enter the NAT service's IP address (192.168.160.2 in this example).

  With Network Address Translation, the host uses two IP addresses:

  - The IP address assigned to the interface for VMnet8 appears in the `ipconfig` output with a 1 in the last octet.

  - The IP address used by the NAT device itself always uses 2 as the last octet.

7   Follow the prompts to complete the installation.

8   Install VMware Tools, which installs and loads the CPU idler program.

VMware Tools in a NetWare 6.0 Server Guest

Installing VMware Tools also installs and loads the CPU idle program. NetWare servers do not idle the CPU when the operating system is idle. As a result, a virtual machine takes CPU time from the host regardless of whether the NetWare server software is idle or busy. To prevent unnecessary slowdowns, VMware recommends that, after you install VMware Tools, you keep the NetWare CPU idle program loaded.

NetWare 5.1 Server

You can install NetWare 5.1 Server in a virtual machine using the standard Novell NetWare 5.1 Server CD-ROM.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- VMware recommends you install NetWare 5.1 on a computer with at least 256MB of memory.

- If you are running NetWare 5.1 Server Support Pack 6, install the latest LSI Logic SCSI driver. For information on obtaining and installing the driver, see http://kb.vmware.com/kb/1181.

- For SCSI support, download the latest LSI Logic driver.

- In the NetWare installation process, boot from the installation CD twice—once to format the virtual machine's disk drive, and a second time to install files from the CD.

  On the reboot, you see the message `Operating System not found` and a dialog box with the message `No bootable CD, floppy or hard disk was detected`.

  To boot from the CD the second time, change the boot order.

  As the virtual machine boots, click inside the virtual machine window. When the VMware logo appears, press Esc. Use the arrow keys to select the CD drive as the boot device, and then press Enter.

Installation Steps

1   Insert the NetWare 5.1 Server CD into the CD-ROM drive.

2   Power on the virtual machine.

3   Read and accept the license agreement.

4   Create a new boot partition.

The guest operating system reboots. The installation continues.

5   **VMware ESX Server.** Skip to .

VMware Workstation, VMware ACE and VMware GSX Server. To configure IP networking, do one of the following:

■   For bridged networking for the virtual machine, enter its IP address.

When NetWare tries to load the LAN driver (using `pcntnw.lan`), it fails because it broadcasts for its own IP address. This causes IP networking to fail.

To work around this, open the System Console (press Ctrl+Esc) and type

`set allow ip address duplicates=on`

Press Alt+Esc to return to the installation.

■   For host-only networking for the virtual machine, look up the host machine's IP address.

At a command prompt on a Windows host, type:

`ipconfig /all`

At a command prompt on a Linux host, type:

`ifconfig`

Note the host's IP address for VMnet1 and change the last octet so it is greater than the last octet in the IP address of the host.

For example, if the host IP address is 192.168.160.1, and then the virtual machine's IP address is 192.168.160.###, where ### is any number greater than 1 and less than 128.

For the subnet mask, enter **`255.255.255.0`**.

For the router gateway, enter the host's IP address (192.168.160.1 in this example).

■   For network address translation (NAT) for the virtual machine, look up the host machine's IP address.

At a command prompt on a Windows host, type:

`ipconfig /all`

At a command prompt on a Linux host, type:

`ifconfig`

Note the host's IP address for VMnet8 and change the last octet so it is greater than the last octet in the IP address of the host.

For example, if the host IP address is 192.168.160.1, the virtual machine's IP address is 192.168.160.###, where ### is any number greater than 2 and less than 128.

For the subnet mask, enter **`255.255.255.0`**.

For the router gateway, enter the NAT service's IP address (192.168.160.2 in this example).

Note that with Network Address Translation, there are two IP addresses in use on the host:

- The IP address assigned to the interface for VMnet8 shows up in the `ipconfig` output with a 1 in the last octet.

- The IP address used by the NAT device itself always uses 2 as the last octet.

6   Follow the prompts to complete the installation.

7   Install VMware Tools, which installs and loads the CPU idler program.

VMware Tools in a NetWare 5.1 Server Guest

Installing VMware Tools also installs and loads the CPU idle program. NetWare servers do not idle the CPU when the operating system is idle. As a result, a virtual machine takes CPU time from the host regardless of whether the NetWare server software is idle or busy. To prevent unnecessary slowdowns, VMware recommends that, after you install VMware Tools, you keep the NetWare CPU idle program loaded.

NetWare 4.2 Server

You can install NetWare 4.2 Server in a virtual machine using the standard Novell NetWare 4.2 Server installation CD.

Before you begin, verify that the following tasks are complete:

- Read "General Installation Instructions for All VMware Products" on page 13.

- If you created this virtual machine on a Linux host follow these steps:

  a   Open the configuration file (`<netware>.cfg`) in a text editor and add the following line:

    `gui.iconLEDS = false`

  b   This removes all the LED icons in the console window, which prevents the virtual machine display from appearing incorrectly when you power it on while the host is in 8 bit/256 color mode.

  c   Install the guest operating system and VMware Tools, which includes the CPU idler program. See "VMware Tools in a NetWare 4.2 Server Guest" on page 83

- VMware recommends that you install NetWare 4.2 Server on a host with at least 256MB of memory.

Installation Steps

1   VMware recommends that you install MS-DOS 5.0 or higher in a small (50MB FAT16) partition as described in these guidelines. The rest of the free space on the virtual disk is used for the NetWare partition. Even if the virtual machine is to run NetWare most of the time, it is a good idea to install a CPU idler program.

2   Install a CD-ROM driver or CD-ROM software for MS-DOS.

If you have problems setting up the MS-DOS virtual machine to access the CD-ROM drive, you can use the `mtmcdai.sys` driver, which can be found at www.mitsumi.com. Under Drivers and Manuals look for `ide158.exe`.

3   Modify the `config.sys` and `autoexec.bat` files on your MS-DOS boot floppy (along with the `mscdex.exe` file) as shown below. If you are using a MS-DOS boot partition, adjust the drive letters accordingly.

```
config.sys
device=himem.sys /testmem:off
device=NEC_IDE.SYS /D:MSCD001
files=12
buffers=15
stacks=9,256
lastdrive=z

autoexec.bat
@ECHO OFF
set EXPAND=YES
SET DIRCMD=/O:N
cls
set temp=c:\
set tmp=c:\
path=c:\

IF "%config%"=="NOCD" GOTO QUIT
a:\NWCDEX.EXE /D:mscd001

:QUIT
```

After you have configured the CD-ROM software, verify that the virtual machine can read a CD from the host system's CD-ROM drive.

4   If the virtual machine is not running, power it on and wait for MS-DOS to finish its boot process.

5   Insert the NetWare 4.2 CD in the CD-ROM drive on the GSX Server host.

6   In the virtual machine, at the MS-DOS prompt, run the `fdisk` command to create a partition for NetWare.

A:\>fdisk

7   After you create the partition, press Ctrl+Alt+Insert to reboot the virtual machine.

8   Format the `C:` drive. Type the following:

format c: /s /x

9   Type the following command to copy the following files to your C: drive from your floppy.

Copy autoexec.bat c:
Copy config.sys c:
Copy himem.sys c:
Copy nwcdex.exe c:
Copy nec_ide.sys c:

10   Modify the `autoexec.bat` file so it points to the CD-ROM directory on the hard drive instead of the floppy drive.

   a   To modify `autoexec.bat`, type the following at the `C:` prompt:

   a:edit autoexec.bat

   b   In the line that reads a:\NWCDEX.EXE /D:mscd001, change the drive from A to C.

   c   Save the changes you just made.

   cd d:

11   Run the `INSTALL.BAT` program to start the NetWare server installation process.

If the virtual machine has been configured for networking (bridged, host-only, NAT or custom), the installation program detects a PCI Ethernet adapter and prompts you with a list of possible drivers.

12 At this point, do not select or load any LAN drivers; press the F3 key to continue installing without a LAN driver.

> **NOTE** After the installation is completed, you can load and bind the appropriate LAN driver. Selecting or loading a LAN driver during the NetWare 4.2 installation might cause the installation process to stall.

13 Follow the prompts to complete the installation.

14 Shut down the server and type `exit` to return to a MS-DOS prompt.

15 Install VMware Tools, which installs and loads the CPU idler program.

VMware Tools in a NetWare 4.2 Server Guest

In NetWare 4.2 virtual machines, VMware Tools provides CPU idling, sends a heartbeat from the guest operating system to the host and gives the virtual machine the ability to be gracefully powered on or off. Installing VMware Tools also installs and loads the CPU idle program. NetWare servers do not idle the CPU when the operating system is idle. As a result, a virtual machine takes CPU time from the host regardless of whether the NetWare server software is idle or busy. To prevent unnecessary slowdowns, VMware recommends that, after you install VMware Tools, you keep the NetWare CPU idle program loaded.

Solaris 10 Operating System x86 Platform Edition

VMware products support only the version for x86 platforms. You cannot install the version for SPARC platforms in a VMware virtual machine.

The easiest method of installing the Solaris 10 Operating System in a virtual machine is to use the standard Solaris 10 for x86 installation media. The notes below describe an installation using the CD set or DVD.

Before you begin, verify that the following tasks are complete:

■ Read "General Installation Instructions for All VMware Products" on page 13.

■ VMware Server or ESX Server

- For the Solaris 10 9/10 release, Sun recommends 1GB of memory. 768MB is the minimum requirement.
- For the Solaris 10 1/06 release, Sun recommends 512MB of memory. 256MB is the minimum requirement.
- For the Solaris 10 3/05 release, Sun recommends 256MB of memory. 128MB is the minimum requirement.

■ Before upgrading a virtual machine's guest operating system to the latest Solaris 10 release, increase the virtual machine's RAM. See your VMware product documentation for instructions. For more information see the System Requirements and Recommendations for Solaris 10 Installation, on the Sun Web site at: http://docs.sun.com/app/docs/doc/817-0544/6mgbagb0v?a=view

Installation Steps

1 Insert the Solaris 10 Operating System for x86 Platforms DVD or the Solaris 10 Software 1 CD in the DVD or CD-ROM drive.

2 Power on the virtual machine.

3 Follow the prompts to complete the installation.

4 Install VMware Tools.

VMware Tools in a Solaris 10 Guest

On ESX, VMware Tools is supported on ESX 3.x and later.

7   Press Enter and press F2 to continue.

8   Do not change the default screen size of 17 inches.

9   Press F2 to continue.

10   Do not change the default screen resolution of 640x480.

11   Press F2 in the Virtual Screen Resolution Selection screen.

12   Do not change the default **No changes needed – Test/Save and Exit**.

13   Press F2 to continue.

14   Press F4 to bypass the Windows System Configuration tests.

15   Follow the prompts to complete the installation.

VMware Tools in a Solaris 9 Guest

VMware Tools does not support Solaris 9.

Solaris 8 Operating System x86 Platform Edition

VMware products support only the x86 Platform Edition. You cannot install the SPARC Platform Edition in a VMware virtual machine.

Before you begin, verify that the following tasks are complete:

■   Read "General Installation Instructions for All VMware Products" on page 13.

■   The Solaris 8 installation CD does not include the Solaris 8 SCSI (LSI/LSISAS) drivers. If you select LSI/LSISAS drivers when installing the guest on the virtual machine, it will not detect the SCSI hard disk unless you install the drivers during the Solaris 8 installation. As a result, you need to create an Install Time Update (ITU) driver disk.

■   If you plan to use a SCSI hard drive, see "Adding a SCSI Driver" on page 86.

■   If you selected an IDE controller, begin installing Solaris 8 by following the "Installation Steps" on page 85.

■   Skip configuring the KDM X server at the first two opportunities. Wait for the third opportunity.

Installation Steps

In most respects, follow the prompts to complete the installation.

1   Insert the Solaris 8 x86 Platform Edition installation CD in the CD-ROM drive.

2   Power on the virtual machine.

3   When the Boot Solaris screen appears, Press F4.

4   In the Boot Tasks screen, use the arrow keys to select **View/Edit Property Settings** and press Enter.

5   Press F2 to continue.

6   Use the arrow keys to select `ata-dma-enabled` and press Enter.

7   Press F3 to change the value.

8   Type **1** and press Enter to enable DMA at the Specify Value prompt.

9   Press F2 in the View/Edit Property Settings screen.

10   Press F3 in the Boot Tasks screen.

11   Select CD in the Boot Solaris screen if you are installing from the CD-ROM set and continue with the installation.

Configure the X Server

Do not configure the KDM X server until all the software is installed and before you configure the X server.

To Configure the X Server

1   When the kdmconfig - Introduction screen appears during installation, press F4 to skip configuring the X server and continue with the installation.

    After the software installation is complete, the installer prompts you for the root password to configure the X Server (Windows System Configuration).

2   Enter the root password. The kdmconfig Mismatch Detected screen appears.

3   Press F2 to configure.

4   Select the default **Change Video Device/Monitor** and press F2 to continue.

5   Press Enter to select **16-color Standard VGA 640x480 (256K)** and press F2 to continue.

6   Use the arrow keys to select **Multifrequency 100KHz (up to 1600x1200 @ 80Hz)** and press Enter.

7   Press F2 to continue.

8   Do not change the default screen size of 17 inches.

9   Press F2 to continue.

10 Do not change the default screen resolution of 640x480.

11 Press F2 in the Virtual Screen Resolution Selection screen.

12 Do not change the default **No changes needed – Test/Save and Exit**.

13 Press F2 to continue.

14 Press F4 to bypass the Windows System Configuration tests.

15 Follow the prompts to complete the installation.

Adding a SCSI Driver

To add a SCSI drive, first create a driver disk with the Solaris 8 drivers. During installation when you install the drivers, the drivers detect the SCSI hard drive.

Download SCSI drivers for Solaris 8 from the LSI Web site:

http://www.lsi.com/DistributionSystem/AssetDocument/itmpt_x86_5.07.04.zip

Creating an ITU Driver Disk Using Solaris

Use the existing dd image `itmpt–x86–50704–itu–s9.dd` file in the zip file to create the driver disk.

Type the following command to create the driver disk:

```
dd if=itmpt–x86–50704–itu–s9.dd of=/vol/dev/aliases/floppy0 bs=32768
```

NOTE   If you want to use Windows to create the disk, refer to the instructions in `itmpt_x86_5.07.04.txt` in the zip file.

Detect the SCSI Hard Drive

These instructions apply to both SCSI and LSI/LSI SAS.

To Detect the SCSI Hard Drive

1   When you begin the installation, press F4 in the Solaris Device Configuration Assistant screen to add the drivers.

2   Insert the ITU disk (connect the Floppy drive to A: in the virtual machine).

3   Press F2 to continue.

    The disk loads the software on the virtual machine.

4   In the Continue Supplement Driver Installation screen, disconnect the disk and press F4.

5   Press F2 to continue the installation in the Identified Device Drivers screen.

6   Follow the rest of the installation steps from Step 3 in "Installation Steps" on page 85.

VMware Tools in a Solaris 8 Guest

VMware Tools does not support Solaris 8.

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