#### **Oracle® VM**

Server Installation Guide

Release 2.2

E15442-01

October 2009

This document is intended for system administrators who wish to install Oracle VM Server. This document discusses downloading and installing Oracle VM Server. It contains:

- Preinstallation Tasks and Requirements
- Installing Oracle VM Server From a CDROM
- Installing Oracle VM Server From Other Sources
- Upgrading Oracle VM Server
- Documentation Accessibility

## 1 Preinstallation Tasks and Requirements

Before you start the Oracle VM Server installation, make sure your computer meets the minimum hardware and software requirements. This section contains:

- Hardware Requirements
- Software Requirements
- Network Requirements
- Getting the Software

## 1.1 Hardware Requirements

Oracle VM Server supports computers with x86 (i686) and x86\_64 processors. This includes all Intel Pentium Pro or newer, and all AMD Athlon/Duron processors and newer. At least a Pentium 4 or Athlon CPU is recommended.

For hardware virtualized (unmodified) guest operating systems (for example, Microsoft Windows), a CPU with hardware virtualization support is required. This includes some Intel Pentium D, Core, Core2 and Xeon models, and some AMD Athlon and Opteron models. This feature may also need to be enabled in the BIOS. Please refer to your processor documentation for information on whether your processor supports hardware virtualization and how to enable it in the BIOS.

A dual core CPU or multiple CPUs are recommended to run multiple guests.

The minimum memory requirement is 1GB RAM, although it is recommended you have a computer with at least 2GB RAM. Guest memory requirements vary for each guest operating system. You should perform your own memory sizing for guest operating systems.



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### 1.2 Software Requirements

There are no prerequisite software requirements. Oracle VM Server includes a small Linux-based management operating system. All previous operating systems and data are lost during the installation of Oracle VM Server.

Migration from any operating system, or previous virtualization environment, is not supported in this release.

#### 1.3 Network Requirements

It is recommended that you install Oracle VM Server on a machine with a static IP address. If your machines uses DHCP you should configure your DHCP server to assign static DHCP addresses. This makes sure your host always receives the same IP address. The behavior of the Oracle VM Server host is undefined if used in an environment where your IP address may change due to DHCP lease expiry.

### 1.4 Getting the Software

If you do not already have the Oracle VM Server software, download the Oracle VM Server ISO file from:

http://www.oracle.com/virtualization

Burn the Oracle VM Server ISO file to a bootable CDROM.

You can install Oracle VM Server from a number of sources:

- Local CDROM
- Hard drive
- NFS server
- FTP server
- HTTP server

To install Oracle VM Server from a CDROM, see Section 2, "Installing Oracle VM Server From a CDROM".

To install Oracle VM Server from a hard drive, NFS server, FTP server, or HTTP server, see Section 3, "Installing Oracle VM Server From Other Sources".

## 2 Installing Oracle VM Server From a CDROM

To install Oracle VM Server from a CDROM:

- 1. Insert the Oracle VM Server CDROM into your CDROM drive.
- **2.** Boot the computer with the Oracle VM Server CDROM.
- The Oracle VM Server screen is displayed.

Figure 1 Oracle VM Server Installation Welcome screen



Press **Enter** to begin the installation. If you do not press a key for one minute, the installer automatically starts. The installer is only available in text mode.

**4.** The **CD Found** screen is displayed.

Figure 2 CD Found screen



If you want to make sure the CDROM has been created correctly you can have the installer test it for errors. To test the CDROM, select **OK** and press **Enter**. The CDROM is tested and any errors are reported.

To skip media testing and continue with the install, select **Skip** and press **Enter**.

**5.** The **Keyboard Selection** screen is displayed.

Figure 3 Keyboard Selection screen

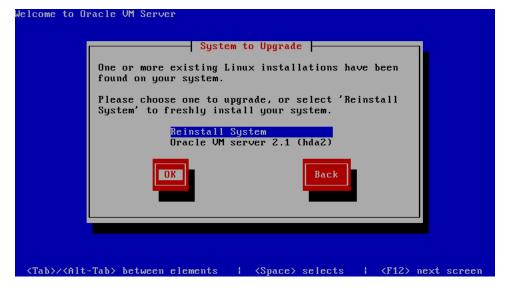


Select the keyboard layout type (for example, **us** for U.S. English) from the list of available options. The keyboard you select becomes the default keyboard for the operating system.

Select **OK** and press **Enter**.

**6.** If an existing Oracle VM Server installation is found on the computer, the **System to Upgrade** screen is displayed.

Figure 4 System to Upgrade screen



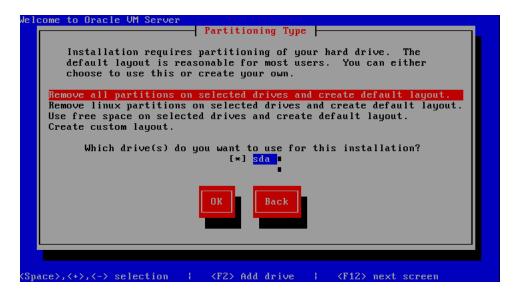
Select **Reinstall System** to overwrite the existing installation.

Select **Oracle VM Server 2.***x* (*disk*) to upgrade the existing installation. Upgrading instructions are described in Section 4, "Upgrading Oracle VM Server".

Select **OK** and press **Enter**.

**7.** The **Partitioning Type** screen is displayed.

Figure 5 Partitioning Type screen



Select whether you want to:

- Remove all partitions and create a new default partition layout
- Remove all Linux partitions and create a new default partition layout
- Use the free space on selected drives to create a new default partition layout
- Create a custom partition layout

Oracle recommends you use a default partition layout.

**Note:** As the Oracle VM Server installer can only be run in text mode, you cannot set up LVM (Logical Volume Manager). If you want to create an LVM configuration, press Alt + F2 to use the terminal and run the 1 vm command. To return to the Oracle VM Server installer, press Alt + F1.

Select which drive you want to use for the installation.

Select **OK** and press **Enter**.

**8.** If you selected to remove a partition, a **Warning** screen is displayed to confirm that you want to remove the partition(s), including the data contained on any partitions.

Figure 6 Warning screen



Select Yes and press Enter.

**9.** The **Review Partition Layout** screen is displayed.

Figure 7 Review Partition Layout screen

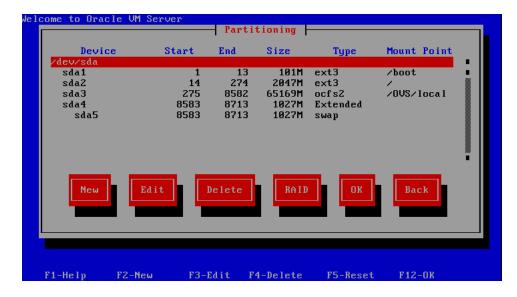


If you do not want to review the partition layout and accept the default partition layout, select **No** and press **Enter**.

If you want to review the partition layout, select **Yes** and press **Enter**.

The **Partitioning** screen is displayed.

Figure 8 Partitioning screen



Review the partition layout, and make any changes you want.

Select **OK** and press **Enter** to save any changes.

**10.** The **Boot Loader Configuration** screen is displayed.

Figure 9 Boot Loader Configuration screen



Select **Master Boot Record (MBR)** or **First sector of boot partition** as the location to install the boot loader.

Select **OK** and press **Enter**.

**11.** The **Oracle VM Management Interface** screen is displayed.

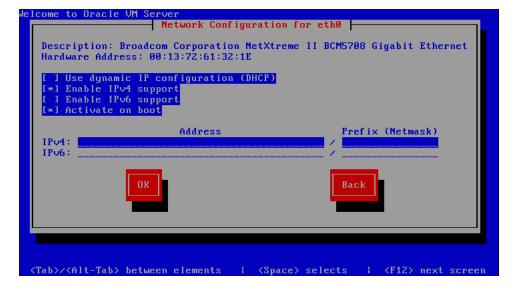
Figure 10 Management Interface screen



Select the network interface to use for management of the computer. Select **OK** and press **Enter**.

**12.** The **Network Configuration for eth***n* screen is displayed.

Figure 11 Network Configuration for ethn screen



If your computer uses a static IP address, select whether you want to enable IPv4 and/or IPv6 support. Enter the IP address and prefix (netmask) for your computer. IPv4 details must be entered if you are performing an installation using an NFS drive. IPv4 support is enabled by default.

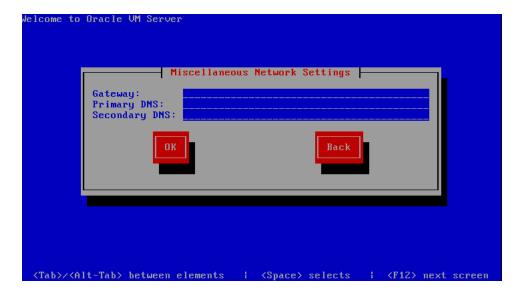
If your computer uses DHCP to assign its IP address, select **Use dynamic IP configuration (DHCP)**. See Section 1.3, "Network Requirements" for more information on using DHCP with Oracle VM Server.

Select whether you want to enable the network configuration each time you boot the computer. This is enabled by default.

Select **OK** and press **Enter**.

**13.** The **Miscellaneous Network Settings** screen is displayed.

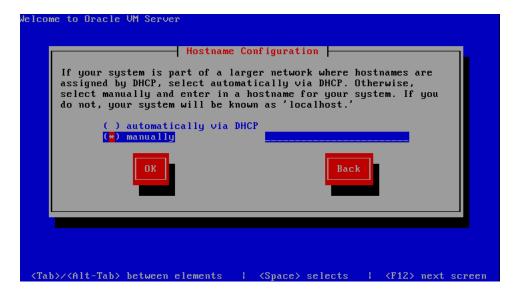
Figure 12 Miscellaneous Network Settings screen



Enter the Gateway, Primary DNS and optional Secondary DNS in the fields. Select **OK** and press **Enter**.

**14.** The **Hostname Configuration** screen is displayed.

Figure 13 Hostname Configuration screen



If your machine has its own hostname, select **manually** and enter the hostname or IP address.

If your machine uses DHCP to assign its hostname, select **automatically via DHCP**. See Section 1.3, "Network Requirements" for more information on using DHCP with Oracle VM Server.

Select **OK** and press **Enter**.

**15.** The **Time Zone Selection** screen is displayed.

Figure 14 Time Zone Selection screen



If your operating system uses Coordinated Universal Time (UTC), select **System clock uses UTC**.

Select your time zone by selecting the city closest to your computer's physical location.

Select **OK** and press **Enter**.

**16.** The **Oracle VM Agent password** screen is displayed.

Figure 15 Oracle VM Agent Password screen



Enter a password to be used for the Oracle VM Agent in the **Password** field. This password is used by Oracle VM Manager to manage and monitor Oracle VM Server, and the guests created and running within it.

Re-enter the password in the **Password (confirm)** field.

The password characters are not echoed to the screen.

Select **OK** and press **Enter**. If the two passwords do not match, the installer prompts you to enter them again.

**17.** The **Root Password** screen is displayed.

Figure 16 Root Password screen



Enter a password for the root user in the **Password** field. The root password must be at least six characters long.

Re-enter the password in the **Password (confirm)** field.

The password characters are not echoed to the screen.

Select **OK** and press **Enter**. If the two passwords do not match, the installer prompts you to enter them again.

**18.** The **Installation to begin** screen is displayed.

Figure 17 Installation to begin screen



Select **OK** and press **Enter**. The installer installs and configures Oracle VM Server.

**19.** When all files are installed and configuration complete, the **Complete** screen is displayed.

Figure 18 Complete screen

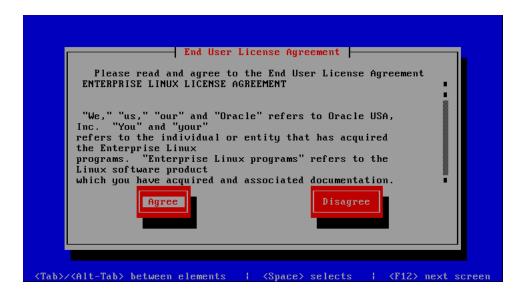


Remove the Oracle VM Server CDROM.

Select **Reboot** and press **Enter**. The computer reboots.

**20.** The **End User License Agreement** screen is displayed.

Figure 19 End User Licence Agreement screen



Review the license agreement. If you agree to the terms of the license agreement, select **Agree** and press **Enter**.

**21.** The Oracle VM Server login prompt is displayed.

Figure 20 Oracle VM Server login console

```
Oracle UM server release 2.1.1
Hypervisor running in 64 bit mode with NO Hardware Virtualization support.

Network:
Management Interface:
If: eth0(Up) Mac: 00:0C:29:EC:9F:29 IP address: 192.168.55.128

Configured Networks and Bridges:
If: eth0 Mac: 00:0C:29:EC:9F:29
If: xenbr0 Mac: FE:FF:FF:FF:FF

CPU:
CPU:
Cpu family : 6
model : 15
model name : Intel(R) Core(TM)2 Duo CPU E6850 @ 3.00GHz

localhost login:
```

Log into Oracle VM Server as root, with the password you set during the install.

The Oracle VM Server installation is complete. The Oracle VM Agent is started automatically and restarts each time the computer is rebooted.

**Note:** A log of the install is located in /root/install.log. If the install fails, review this log file for help identifying the cause.

# 3 Installing Oracle VM Server From Other Sources

This section discusses installing Oracle VM Server from a hard drive, NFS server, FTP server, or HTTP server. All the installations in this section assume that the Oracle VM Server ISO file is available at the location being used in the installation. To install Oracle VM Server:

- 1. Insert the Oracle VM Server CDROM into your CDROM drive.
- 2. Boot the computer with the Oracle VM Server CDROM.
- The Oracle VM Server screen is displayed.

Figure 21 Oracle VM Server Installation Welcome screen



At the **boot:** prompt, enter

linux askmethod

Press Enter.

**4.** The **Keyboard Type** screen is displayed.

Figure 22 Keyboard Type screen



Select the keyboard layout type (for example, **us** for U.S. English) from the list of available options. The keyboard you select becomes the default keyboard for the operating system.

Select **OK** and press **Enter**.

**5.** The **Installation Method** screen is displayed.

Figure 23 Installation Method screen



Continue the installation with the section relevant to your install location selection:

- Section 3.1, "Installing Oracle VM Server From a Hard Drive"
- Section 3.2, "Installing Oracle VM Server From an NFS Image"
- Section 3.3, "Installing Oracle VM Server From an FTP Server"

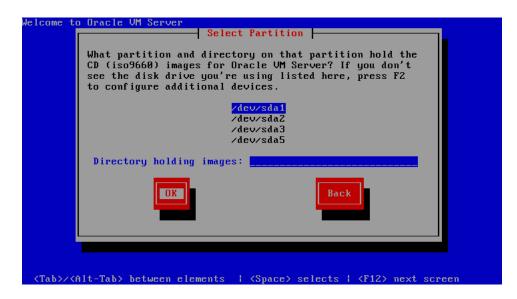
Section 3.4, "Installing Oracle VM Server From an HTTP Server"

#### 3.1 Installing Oracle VM Server From a Hard Drive

To install Oracle VM Server from a hard drive:

- Select Hard drive from the list of installation methods.
   Select OK and press Enter.
- 2. The **Select Partition** screen is displayed.

Figure 24 Select Partition screen



Select the partition containing the Oracle VM Server ISO file. The partition must be formatted with an EXT2 or VFAT file system, and cannot be a logical volume. If the partition you want is not listed, press **F2** to configure additional devices.

Enter the directory containing the Oracle VM Server ISO image in the **Directory holding images** field. If the Oracle VM Server ISO file is in the root (top-level) directory of a partition, enter a / (slash). If the Oracle VM Server ISO file is in a subdirectory of a mounted partition, enter the name of the directory containing the file within that partition. For example, if the partition on which the Oracle VM Server ISO file is mounted is /myhome/, and the Oracle VM Server ISO file is in /myhome/new/, enter /new/.

Select **OK** and press **Enter**.

See step 7. in Section 2, "Installing Oracle VM Server From a CDROM" to continue the installation.

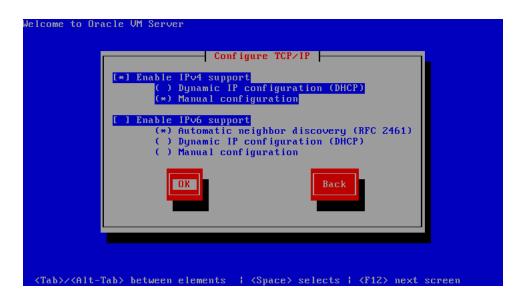
### 3.2 Installing Oracle VM Server From an NFS Image

You can install Oracle VM Server from an NFS (Network File System) drive with either the Oracle VM Server ISO file or a mirror image. To install Oracle VM Server from an NFS drive:

Select NFS image from the list of installation methods.
 Select OK and press Enter.

**2.** The **Configure TCP/IP** screen is displayed.

Figure 25 Configure TCP/IP screen



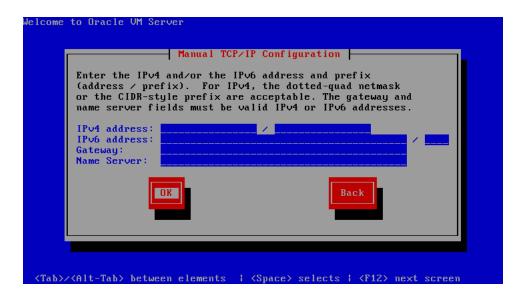
If your machine has its own IP address, select **Manual configuration** under **Enable IPv4 support** and optionally under **Enable IPv6 support**. IPv4 details must be entered.

If your machine uses DHCP to assign its IP address, select **Dynamic IP configuration (DHCP)** under **Enable IPv4 support** and optionally under **Enable IPv6 support**. See Section 1.3, "Network Requirements" for more information on using DHCP with Oracle VM Server.

Select **OK** and press **Enter**.

**3.** If you selected Manual configuration, the **Manual TCP/IP Configuration** screen is displayed.

Figure 26 Manual TCP/IP Configuration screen



Enter the IPv4 address, IPv6 address, Gateway and Name Server.

Select **OK** and press **Enter**.

**4.** The **NFS Setup** screen is displayed.

Figure 27 NFS Setup screen



Enter the domain name or IP address of your NFS server in the **NFS server name** field.

If the NFS server is exporting a mirror of the Oracle VM Server installation tree, enter the directory which contains the root of the installation tree. If the NFS server is exporting the Oracle VM Server ISO file, enter the directory which contains the ISO file.

Select **OK** and press **Enter**.

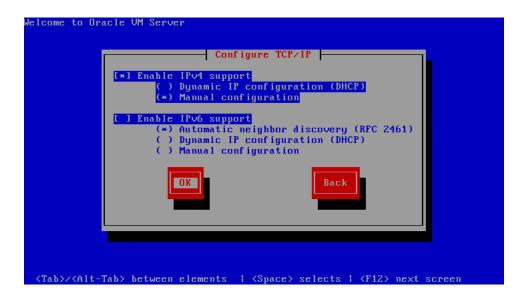
See step 7 in Section 2, "Installing Oracle VM Server From a CDROM" to continue the installation.

#### 3.3 Installing Oracle VM Server From an FTP Server

To install Oracle VM Server from an FTP server:

- Select FTP from the list of installation methods.
   Select OK and press Enter.
- **2.** The **Configure TCP/IP** screen is displayed.

Figure 28 Configure TCP/IP screen



If your machine has its own IP address, select **Manual configuration** under **Enable IPv4 support** and optionally under **Enable IPv6 support**. IPv4 details must be entered.

If your machine uses DHCP to assign its IP address, select **Dynamic IP configuration (DHCP)** under **Enable IPv4 support** and optionally under **Enable IPv6 support**. See Section 1.3, "Network Requirements" for more information on using DHCP with Oracle VM Server.

Select **OK** and press **Enter**.

**3.** If you selected Manual configuration, the **Manual TCP/IP Configuration** screen is displayed.

Figure 29 Manual TCP/IP Configuration screen



Enter the IPv4 address, IPv6 address, Gateway and Name Server.

Select **OK** and press **Enter**.

**4.** The **FTP Setup** screen is displayed.

Figure 30 FTP Setup screen



Enter the domain name or IP address of your FTP server in the **FTP site name** field.

Enter the name of the directory containing the variant directory for your architecture in the **Oracle VM Server directory** field. For example, if the FTP server contains the directory:

/mirrors/ovs/arch/variant/

Enter

Replace *arch* with the architecture type of your system, for example, i386, ia64, ppc, or s390x. Replace *variant* with the variant that you are installing, for example, Client, Server, Workstation, and so on.

Select **Use non-anonymous ftp** if you must enter login credentials to access the FTP server.

Select **OK** and press **Enter**.

**5.** If you selected **Use non-anonymous ftp**, the **Further FTP Setup** screen is displayed.

Figure 31 Further FTP Setup screen



Enter the FTP server username in the **Account name** field, and the FTP server password in the **Password** field. Select **OK** and press **Enter**.

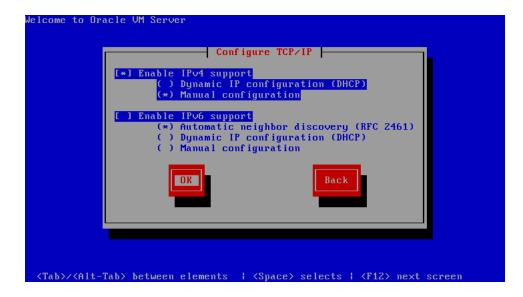
See step 7. in Section 2, "Installing Oracle VM Server From a CDROM" to continue the installation.

### 3.4 Installing Oracle VM Server From an HTTP Server

To install Oracle VM Server from an HTTP server:

- Select HTTP from the list of installation methods.
   Select OK and press Enter.
- **2.** The **Configure TCP/IP** screen is displayed.

Figure 32 Configure TCP/IP screen



If your machine has its own IP address, select **Manual configuration** under **Enable IPv4 support** and optionally under **Enable IPv6 support**. IPv4 details must be entered.

If your machine uses DHCP to assign its IP address, select **Dynamic IP configuration (DHCP)** under **Enable IPv4 support** and optionally under **Enable IPv6 support**. See Section 1.3, "Network Requirements" for more information on using DHCP with Oracle VM Server.

Select **OK** and press **Enter**.

**3.** If you selected Manual configuration, the **Manual TCP/IP Configuration** screen is displayed.

Figure 33 Manual TCP/IP Configuration screen



Enter the IPv4 address, IPv6 address, Gateway and Name Server.

Select **OK** and press **Enter**.

**4.** The **HTTP Setup** screen is displayed.

Figure 34 HTTP Setup screen



Enter the domain name or IP address of your HTTP server in the **Web site name** field.

Enter the name of the directory containing the variant directory for your architecture in the **Oracle VM Server directory** field. For example, if the HTTP server contains the directory:

/mirrors/ovs/arch/variant/

#### Enter

/mirrors/ovs/i386/Server

Replace *arch* with the architecture type of your system, for example, i386, ia64, ppc, or s390x. Replace *variant* with the variant that you are installing, for example, Client, Server, Workstation, and so on.

Select **OK** and press **Enter**.

See step 7. in Section 2, "Installing Oracle VM Server From a CDROM" to continue the installation.

# 4 Upgrading Oracle VM Server

This section discusses upgrading Oracle VM Server from a previous installation.

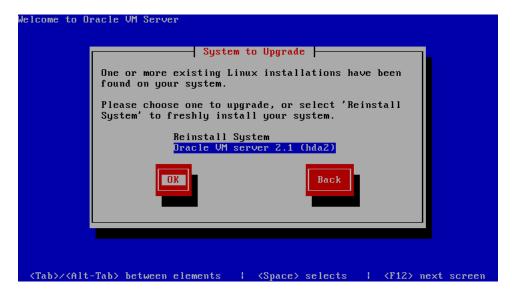
Oracle VM Manager is backwardly compatible with previous Oracle VM Server releases. To make sure you are not using a newer version of Oracle VM Server that cannot be managed Oracle VM Manager, you should upgrade Oracle VM Manager to Release 2.2 *before* you upgrade your Oracle VM Servers to Release 2.2.

If you have multiple Oracle VM Servers in a server pool, first upgrade the Oracle VM Servers which do *not* function as the Server Pool Master. The last Oracle VM Server in the server pool to be upgraded should be the Server Pool Master.

To upgrade Oracle VM Server:

- Start the Oracle VM Server installer by following the steps in either Section 2,
   "Installing Oracle VM Server From a CDROM" or Section 3, "Installing Oracle VM
   Server From Other Sources". When the System to Upgrade screen is displayed, use
   the following steps to perform the upgrade.
- **2.** If an existing Oracle VM Server installation is found on the computer, the **System to Upgrade** screen is displayed.

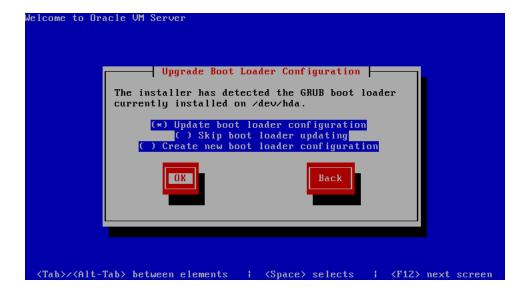
Figure 35 System to Upgrade screen



Select **Oracle VM Server 2.x** (*disk*) to upgrade the existing installation.

Select **OK** and press **Enter**.

**3.** The **Upgrade Boot Loader Configuration** screen is displayed.



Select **Update boot loader configuration** to update the existing boot loader. Select **Skip boot loader updating** to make no changes to the boot loader. Select **Create new boot loader configuration** to create a new boot loader.

Select **OK** and press **Enter**.

If you selected **Create new boot loader configuration**, the **Boot Loader Configuration** screen is displayed.

Figure 36 Boot Loader Configuration screen



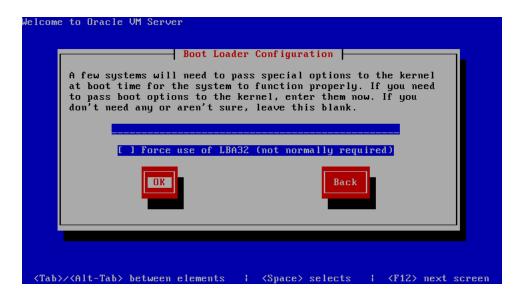
Select **Use GRUB Boot Loader** to use the GRUB boot loader. Select **No Boot Loader** to not create a boot loader.

Select **OK** and press **Enter**.

If you select **No Boot Loader**, the **Skip Boot Loader** screen is displayed. It is strongly recommended that you install and use a boot loader. Select **Yes** or **No** to confirm your choice.

If you select **Use GRUB Boot Loader**, the **Boot Loader Configuration** screen is displayed.

Figure 37 Boot Loader Configuration screen



If you want to pass any extra boot options to the kernel, enter them on this screen. If you want to force the use of LBA32, select **Force use of LBA32** (**not normally required**).

Select **OK** and press **Enter**.

The **Boot Loader Configuration** screen is displayed.

Figure 38 Boot Loader Configuration screen



If you want to set a boot loader password to increase security of your machine, select **Use a GRUB Password**, enter a password in the **Boot Loader Password** field, and re-enter the password in the **Confirm** field.

Select **OK** and press **Enter**.

The **Boot Loader Configuration** screen is displayed.

Figure 39 Boot Loader Configuration screen



Select **Master Boot Record (MBR)** or **First sector of boot partition** as the location to install the boot loader.

Select **OK** and press **Enter**.

**4.** The **Upgrade to begin** screen is displayed.

Figure 40 Upgrade to begin screen



Select **OK** and press **Enter**. The installer installs and configures Oracle VM Server.

**5.** When all files are installed and configuration complete, the **Complete** screen is displayed.

Figure 41 Complete screen



If you performed the upgrade from the CDROM drive, remove the Oracle VM Server CDROM.

Select **Reboot** and press **Enter**. The computer reboots.

The Oracle VM Server login prompt is displayed.

The Oracle VM Server upgrade is complete.

**Note:** A log of the install is located in /root/upgrade.log. If the installation fails, review this log file for help identify the cause of any installation problems.

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http://www.fcc.gov/cgb/consumerfacts/trs.html, and a list of phone numbers is available at http://www.fcc.gov/cgb/dro/trsphonebk.html.

Oracle VM Server Installation Guide, Release 2.2 E15442-01

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