

Oracle® VM
Installation and Upgrade Guide
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Oracle VM Installation and Upgrade Guide, Release 3.0 for x86

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Preface

The preface contains information on how to use the Oracle VM Installation and Upgrade Guide. The areas discussed are:

- [Audience](#)
- [Documentation Accessibility](#)
- [Related Documents](#)
- [Command Syntax](#)
- [Conventions](#)

Audience

The Oracle VM Installation and Upgrade Guide is intended for system administrators and end users who want to install or upgrade Oracle VM.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

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Related Documents

For more information, see the following documents in the Oracle VM Release 3.0 documentation set:

- *Oracle VM Release Notes*
- *Oracle VM User's Guide*

You can also get the latest information on Oracle VM by going to the Oracle virtualization Web site:

<http://www.oracle.com/virtualization>

Command Syntax

Oracle Linux command syntax appears in monospace font. The dollar character (\$), number sign (#), or percent character (%) are Oracle Linux command prompts. Do not enter them as part of the command. The following command syntax conventions are used in this guide:

Convention	Description
backslash \	A backslash is the Oracle Linux command continuation character. It is used in command examples that are too long to fit on a single line. Enter the command as displayed (with a backslash) or enter it on a single line without a backslash: <pre>dd if=/dev/rdsd/c0t1d0s6 of=/dev/rst0 bs=10b \ count=10000</pre>
braces { }	Braces indicate required items: <pre>.DEFINE {macro}</pre>
brackets []	Brackets indicate optional items: <pre>cvtcrt termname [outfile]</pre>
ellipses ...	Ellipses indicate an arbitrary number of similar items: <pre>CHKVAL fieldname value1 value2 ... valueN</pre>
<i>italics</i>	Italic type indicates a variable. Substitute a value for the variable: <pre>library_name</pre>
vertical line	A vertical line indicates a choice within braces or brackets: <pre>FILE filesize [K M]</pre>

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Installation Overview

This chapter contains introductory information on Oracle VM installation procedures. This chapter contains:

- [Installing Oracle VM](#)
- [Upgrading Oracle VM](#)

1.1 Installing Oracle VM

To install Oracle VM, you must install at least one Oracle VM Server, and then install one instance of Oracle VM Manager.

1.1.1 Installing Oracle VM Server

Installing Oracle VM Server deletes any previous operating system and data on the computer. To install Oracle VM Server:

1. Boot the computer on which you want to Oracle VM Server with your Oracle VM Server CD.
2. At the boot prompt, press **Enter**.
3. Follow the prompts to install Oracle VM Server.
4. Log into Oracle VM Server as the *root* user, with the password you set during the installation.

See the [Section 2, "Installing Oracle VM Server"](#) for detailed information on installing Oracle VM Server.

If you want to use more than one Oracle VM Server, repeat the installation process. Oracle VM Servers can be added to a server pool and managed by Oracle VM Manager.

1.1.2 Installing Oracle VM Manager

To install Oracle VM Manager:

1. Start up the operating system on the computer on which you want to install Oracle VM Manager.
2. Insert and mount the Oracle VM Manager CD.
3. As the *root* user, start the Oracle VM Manager installation script:

```
# ./runInstaller.sh
```
4. Follow the prompts to install Oracle VM Manager.

See the [Section 3, "Installing Oracle VM Manager"](#) for detailed information on installing Oracle VM Manager.

1.2 Upgrading Oracle VM

You cannot upgrade Oracle VM 2.x to Oracle VM 3.0. A full reinstall of your Oracle VM environment is required. You can however upgrade an Oracle VM 3.0.x environment to a later Oracle VM 3.0.x release. See [Chapter 4, "Upgrading Oracle VM"](#) for information on performing an upgrade.

Installing Oracle VM Server

This document is intended for system administrators who want 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 CD](#)
- [Changing the Oracle VM Agent Password](#)
- [Changing the Dom0 Memory Size](#)

2.1 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](#)
- [Oracle VM Server Memory Settings](#)
- [Getting the Software](#)

2.1.1 Hardware Requirements

This release of Oracle VM Server supports x86_64 host hardware only. Oracle VM Server requires a 64-bit processor.

For hardware virtualized (unmodified) guest operating systems (for example, Microsoft Windows), a CPU with hardware virtualization support is required. 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.

2.1.2 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.

2.1.3 Network Requirements

It is recommended that you install Oracle VM Server on a machine with a static IP address. If your machines use 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.

If you use DHCP, you may also encounter problems with the default gateway. Linux systems set the default gateway using the route provided by the DHCP server, regardless of the setting in the computer running Oracle VM Server. This may not be the default route you want. If you use DHCP, you should configure the DHCP server to not provide the default gateway for the machines running Oracle VM Server.

2.1.4 Oracle VM Server Memory Settings

Oracle recommends you to leave the dom0 memory to the value by default. It is set by default as $502 + 0.0205 * \text{physical-memory}$ (in MB) during the installation.

2.1.5 Getting the Software

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

<http://edelivery.oracle.com/oraclevm>

Burn the Oracle VM Server ISO file to a bootable CD. To install Oracle VM Server from a CD, see [Section 2.2, "Installing Oracle VM Server From a CD"](#).

2.2 Installing Oracle VM Server From a CD

To install Oracle VM Server from a CD:

1. Make sure that the server BIOS is set to boot from CD.
2. Insert the Oracle VM Server CD into your CD drive.
3. Boot the server with the Oracle VM Server CD.
4. The **Oracle VM Server** screen is displayed.

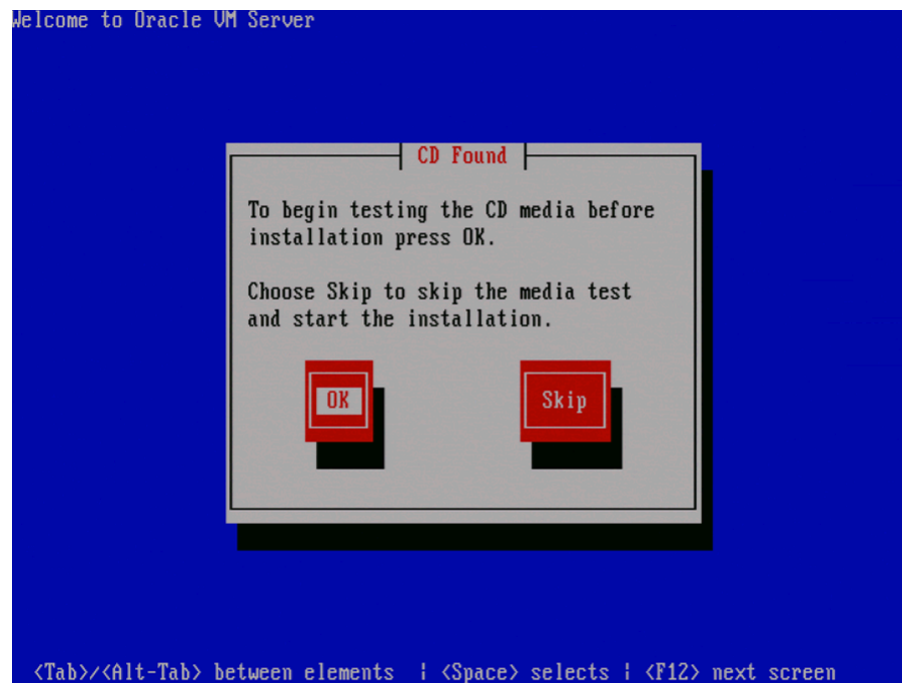
Figure 2-1 Oracle VM Server Installation Welcome screen



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.

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

Figure 2-2 CD Found screen

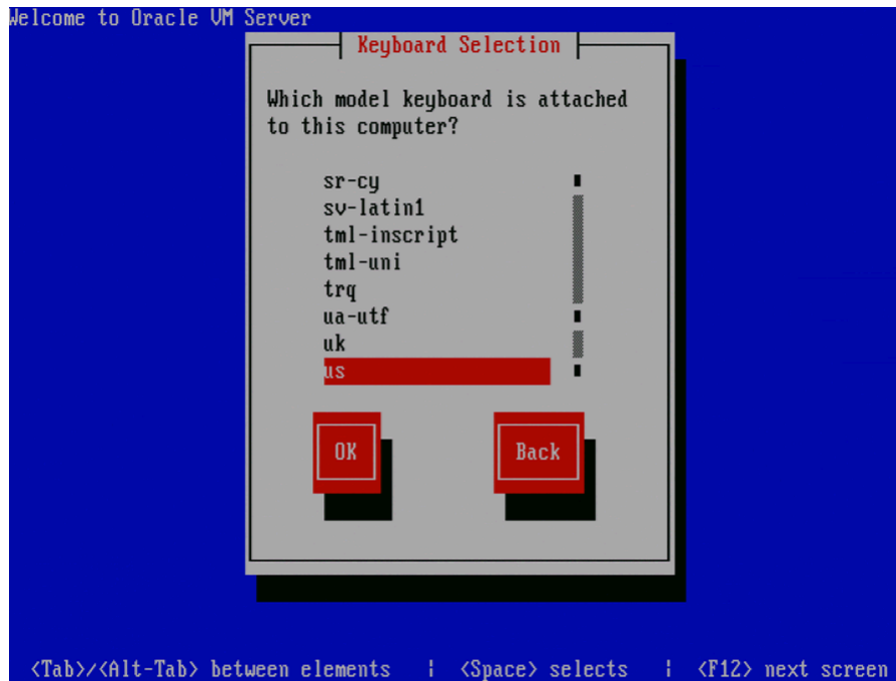


If you want to make sure the CD has been created correctly you can have the installer test it for errors. To test the CD, select **OK** and press **Enter**. The CD is tested and any errors are reported.

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

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

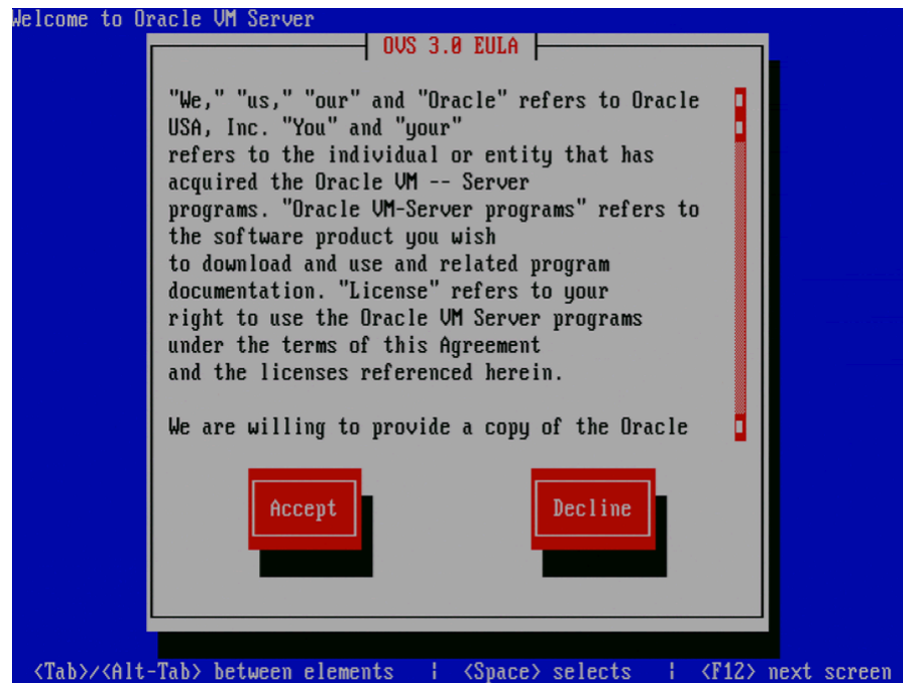
Figure 2–3 Keyboard Selection screen



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.

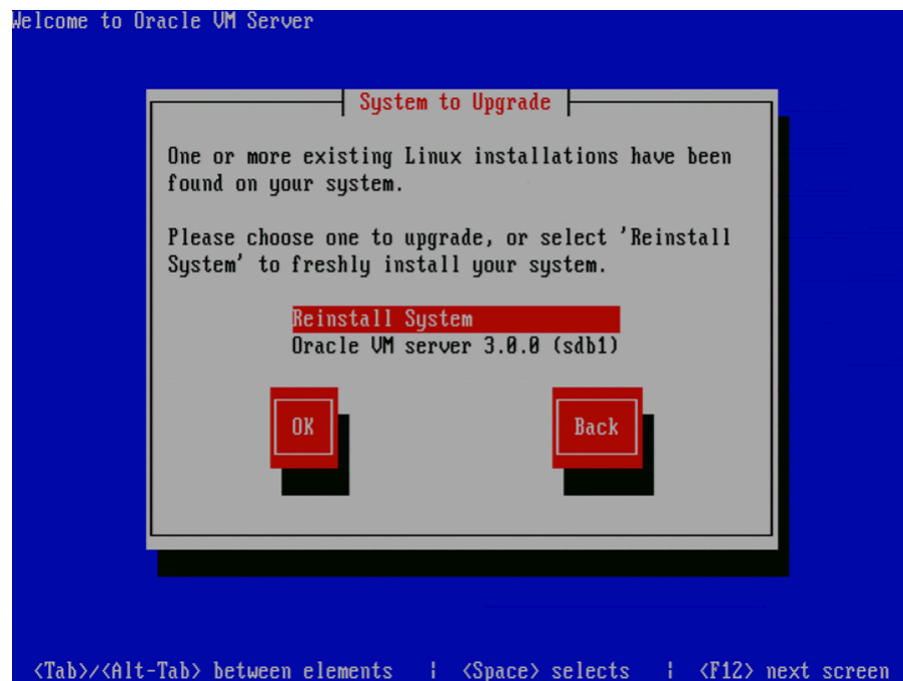
Select **OK** and press **Enter**.

7. The Oracle VM Server 3.0 **End User License Agreement** screen is displayed.

Figure 2–4 End User License Agreement screen

Read the License Agreement text and click **Accept** to accept the terms of the agreement and continue the installation.

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

Figure 2–5 System to Upgrade screen

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

Select **Oracle VM Server 3.x (disk)** to upgrade the existing installation. Upgrade instructions are described in [Section 4.3.2, "Upgrading Oracle VM Server Using The CD"](#). Upgrading an Oracle VM Server from Release 2.x is not supported; you must perform a fresh install.

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

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

Figure 2–6 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 minimal partition layout for installation to a USB drive
- Create a custom partition layout

Oracle recommends you use a default partition layout.

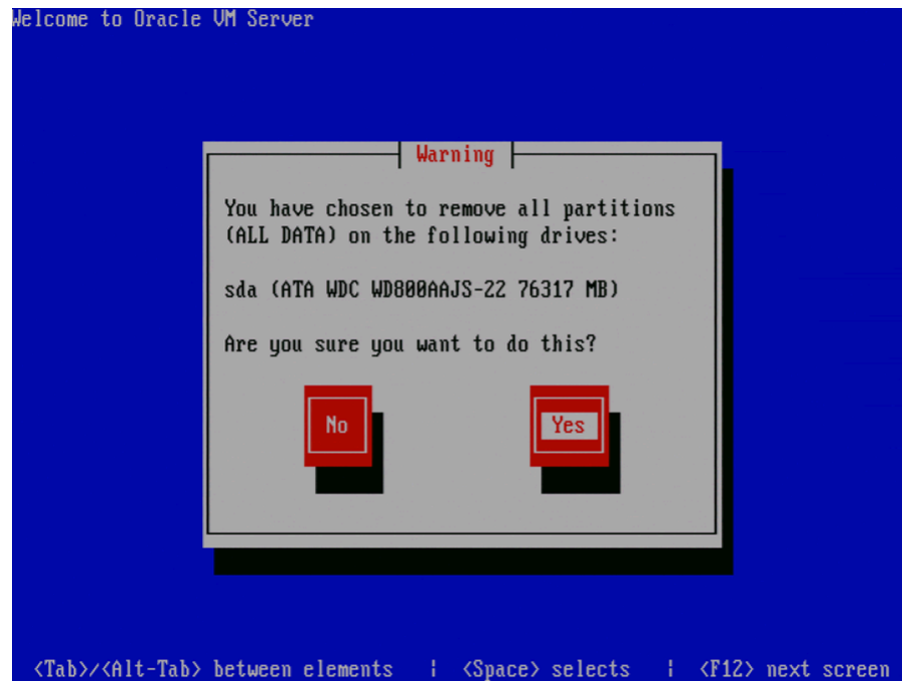
Note: As the Oracle VM Server installer can only be run in text mode, you cannot set up LVM (Logical Volume Manager). If you want to create an LVM configuration, press **Alt + F2** to use the terminal and run the `lvm` command. To return to the Oracle VM Server installer, press **Alt + F1**.

Select which drive(s) you want to use for the installation.

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

10. 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.

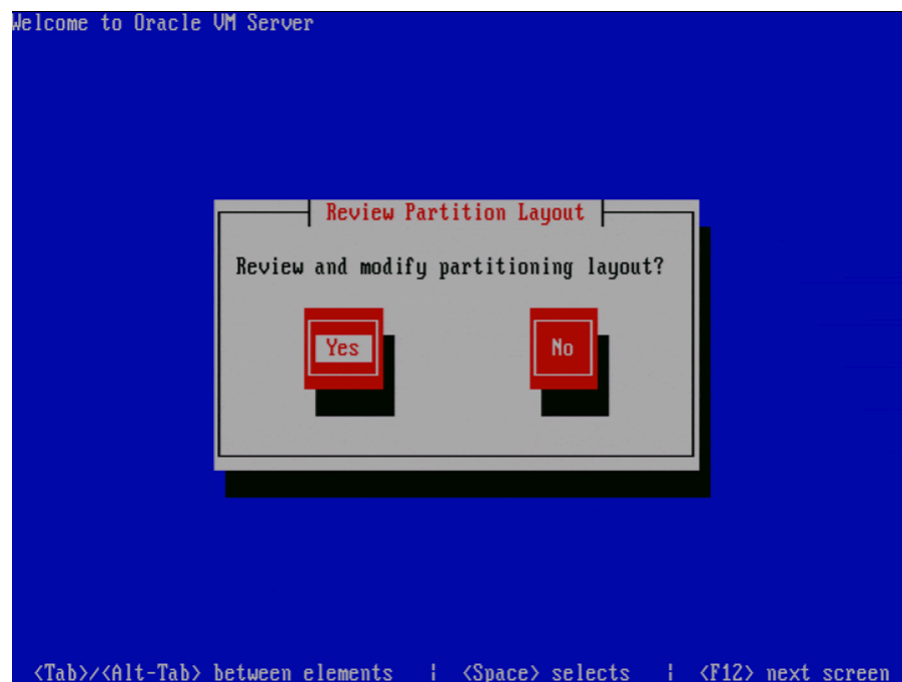
Figure 2–7 Warning screen



Select **Yes** and press **Enter**.

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

Figure 2–8 Review Partition Layout screen

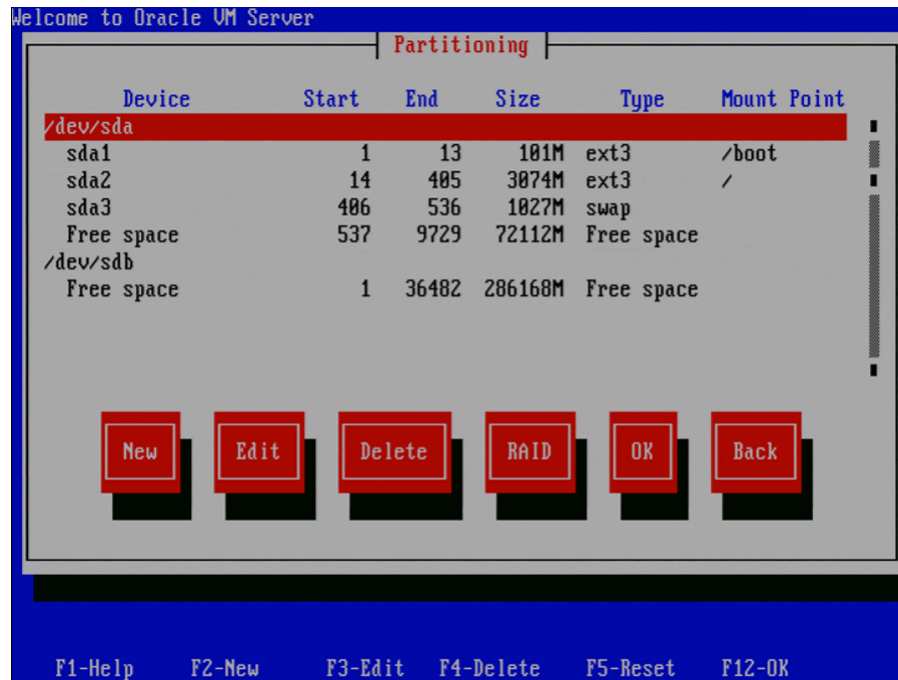


If you do not want to review the partition layout and accept the default partition layout, select **No** and press **Enter**.

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

The **Partitioning** screen is displayed.

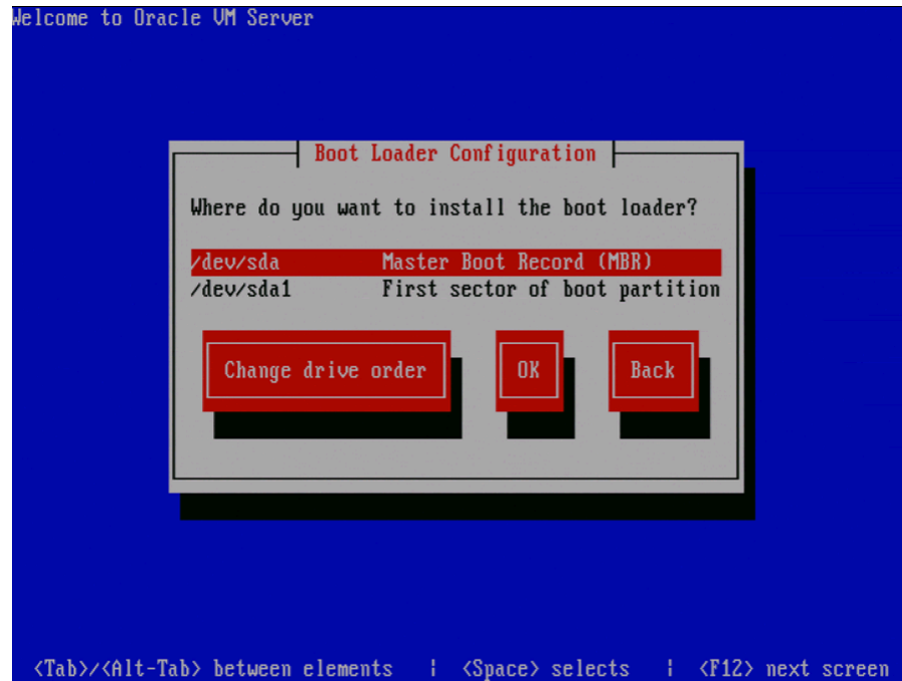
Figure 2–9 Partitioning screen



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

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

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

Figure 2–10 Boot Loader Configuration screen

If necessary, you can change the drive for the master boot record by clicking **Change drive order** and selecting a different drive.

Figure 2–11 Change Drive Order screen

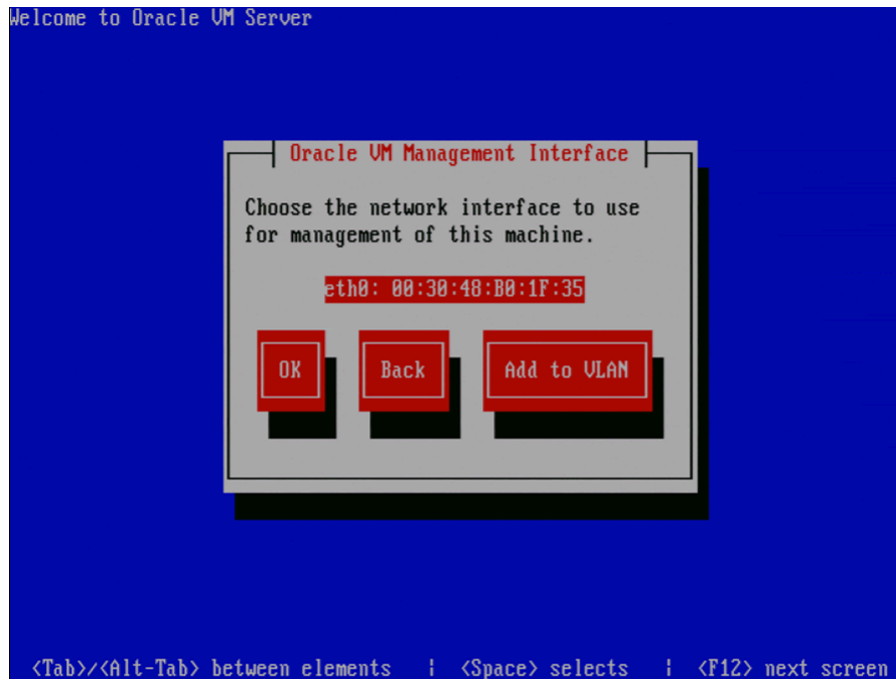
Select a drive in the list and click the Move up and Move down buttons to change the order, making sure that the drive to locate the Master Boot Record is at the top.

Select **Back** and press **Enter** to return to the **Boot Loader Configuration** screen.

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

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

Figure 2–12 Management Interface screen



Select the network interface to use for management of the computer.

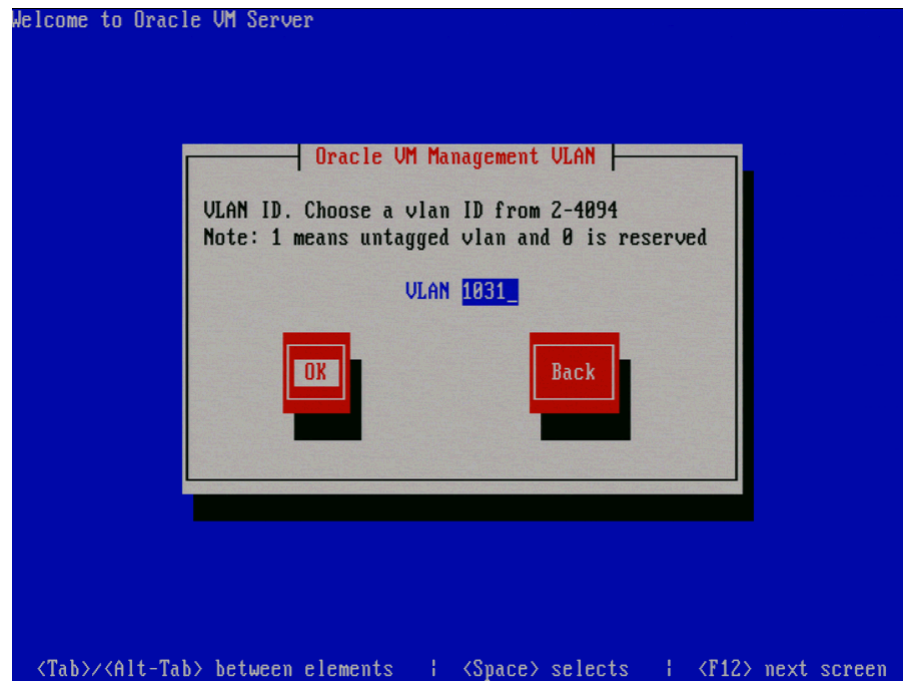
Choose one of these options:

- Select **OK** to connect the interface to a regular network.
- Select **Add to VLAN** to connect the interface to a VLAN-type network.

Press **Enter**.

14. For non-VLAN installation, proceed with step 15.

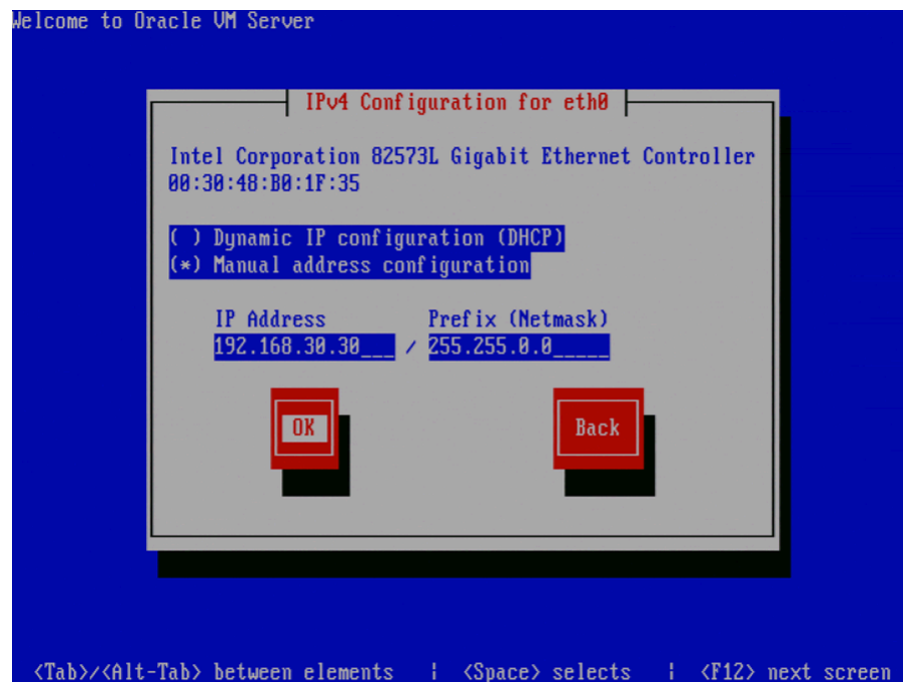
If you selected **Add to VLAN**, the **Oracle VM Management VLAN** screen is displayed.

Figure 2–13 Oracle VM Management VLAN screen

If your Oracle VM Management network is on a VLAN, enter the applicable VLAN tag. Note that 0 is reserved and that 1 corresponds with "untagged".

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

15. The **Network Interface Configuration** screen is displayed.

Figure 2–14 Network Interface Configuration screen

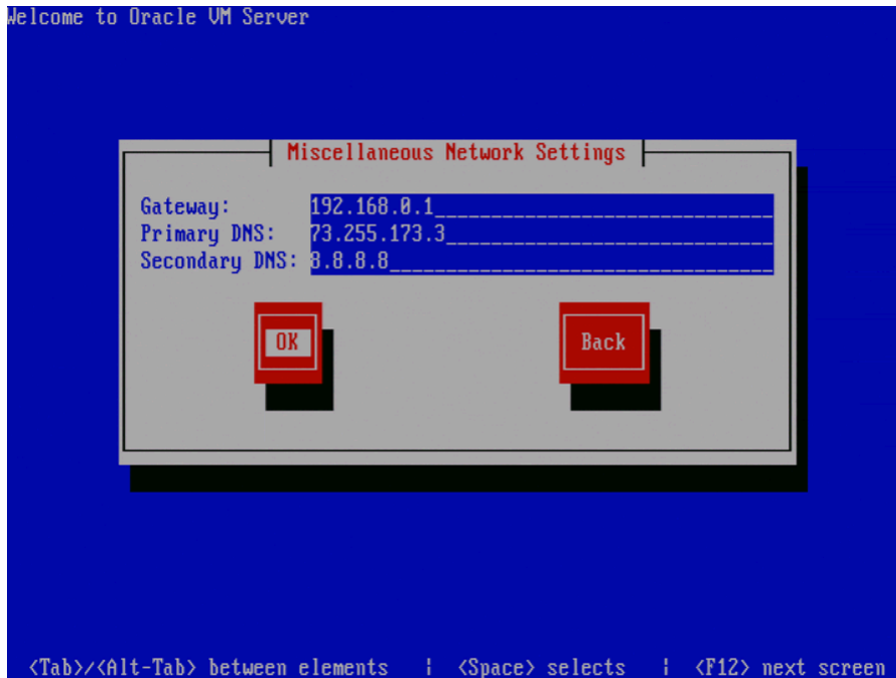
If your computer uses a static IP address, enter the IP address and prefix (netmask) for your computer.

If your computer uses DHCP to assign its IP address, select **Dynamic IP configuration (DHCP)**. See [Section 2.1.3, "Network Requirements"](#) for more information on using DHCP with Oracle VM Server.

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

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

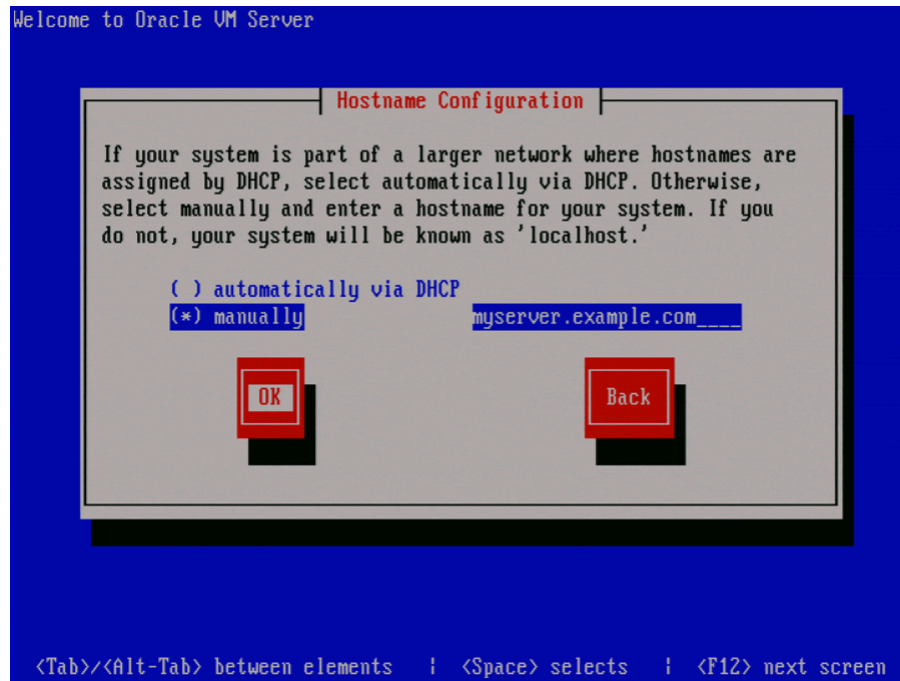
Figure 2–15 Miscellaneous Network Settings screen



Enter the Gateway, Primary DNS and optional Secondary DNS in the respective fields.

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

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

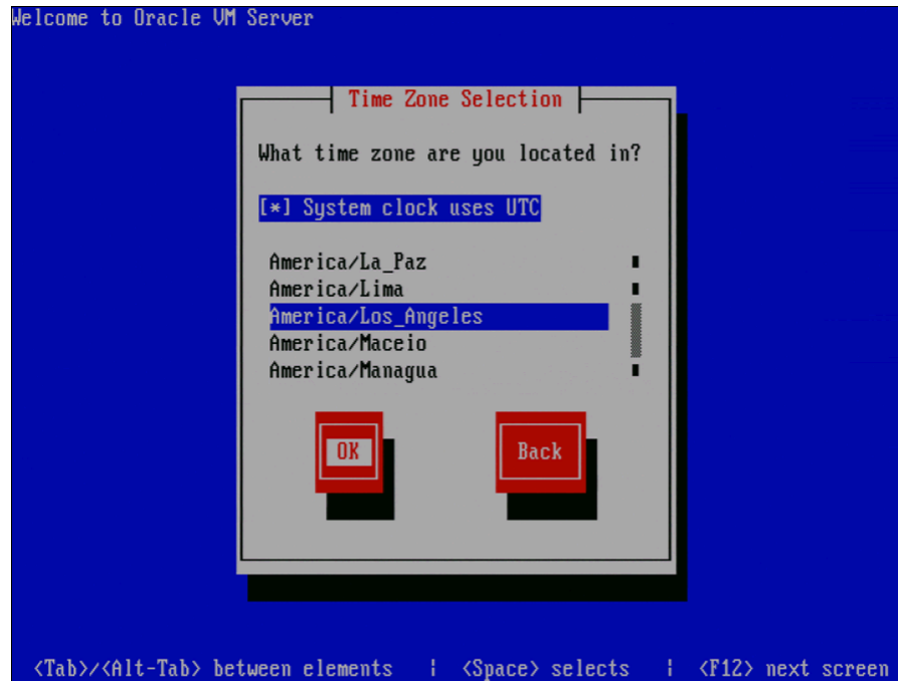
Figure 2–16 Hostname Configuration screen

If your machine has its own hostname, select **manually** and enter the hostname or IP address. You should use a fully qualified hostname, for example, myserver.example.com.

If your machine uses DHCP to assign its hostname, select **automatically via DHCP**. See [Section 2.1.3, "Network Requirements"](#) for more information on using DHCP with Oracle VM Server.

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

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

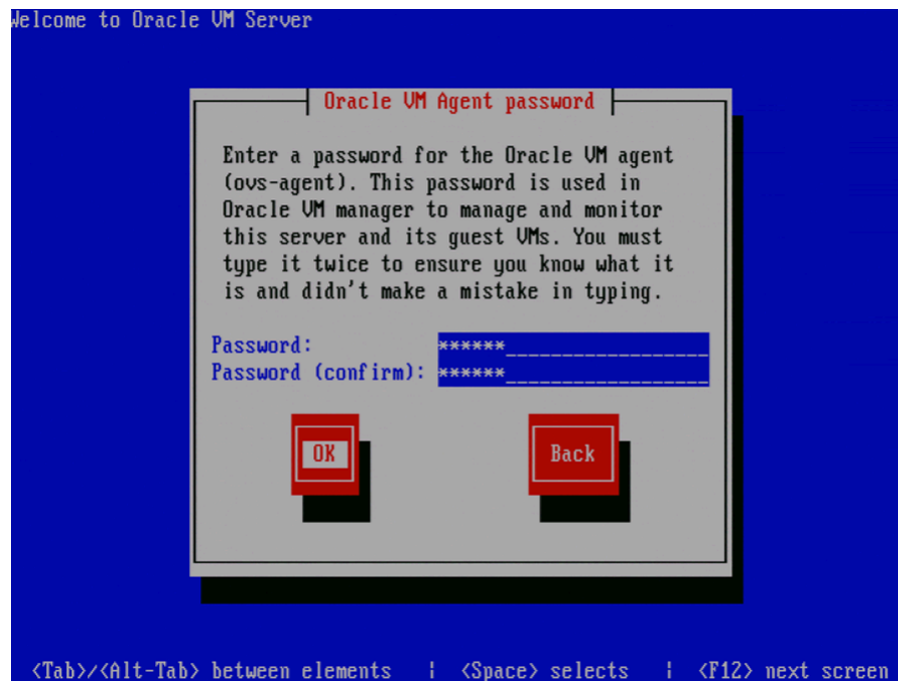
Figure 2–17 Time Zone Selection screen

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**.

19. The Oracle VM Agent password screen is displayed.

Figure 2–18 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. This is the password you use when discovering Oracle VM Servers in Oracle VM Manager.

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

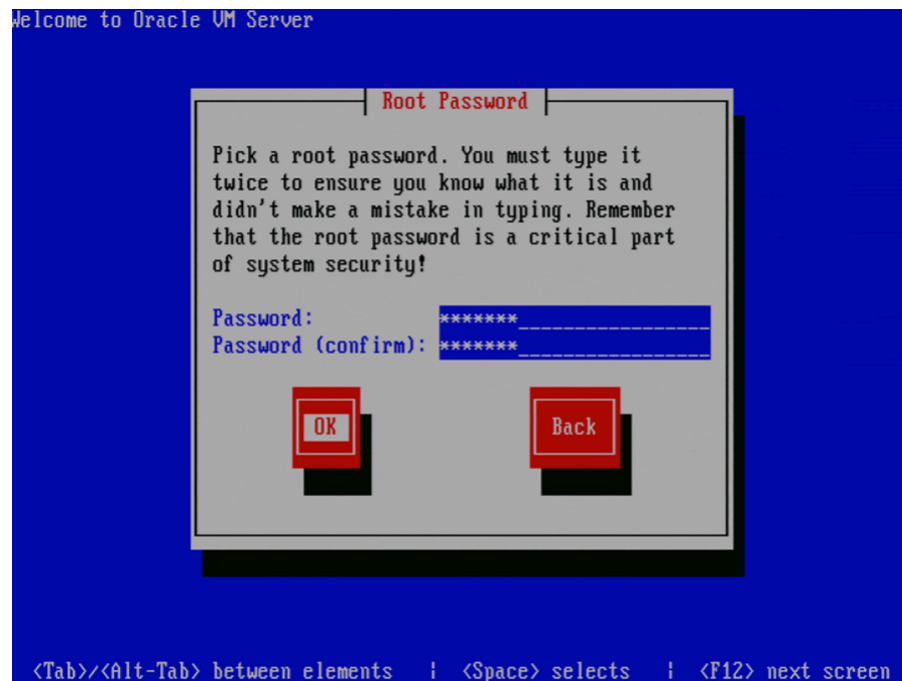
The password characters are not echoed to the screen.

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

Note: If you need to change this password, use the `ovs-agent-passwd` utility. See [Section 2.3, "Changing the Oracle VM Agent Password"](#) for more information.

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

Figure 2–19 *Root Password screen*



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

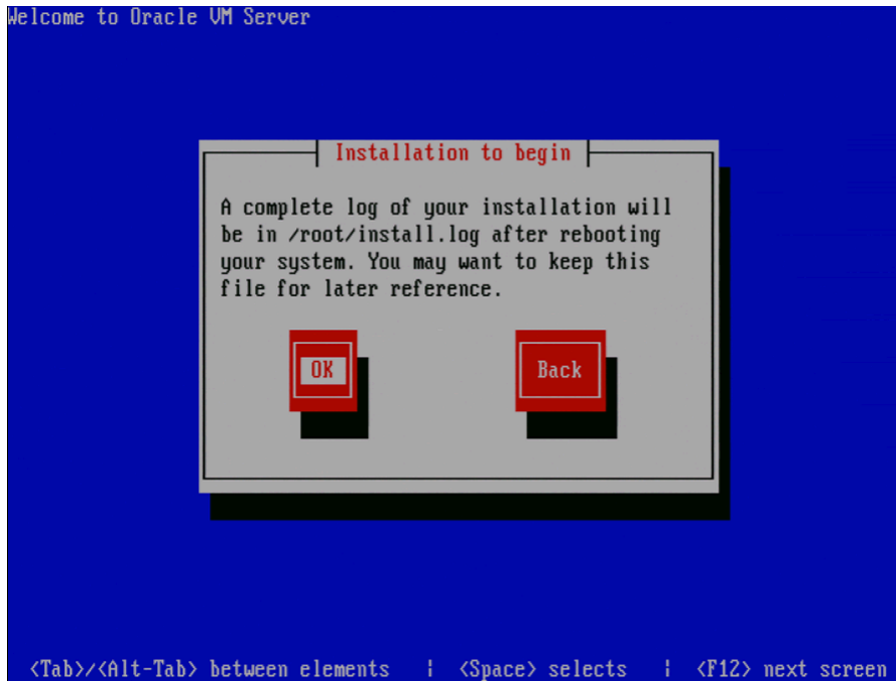
Re-enter the password in the **Password (confirm)** field.

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.

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

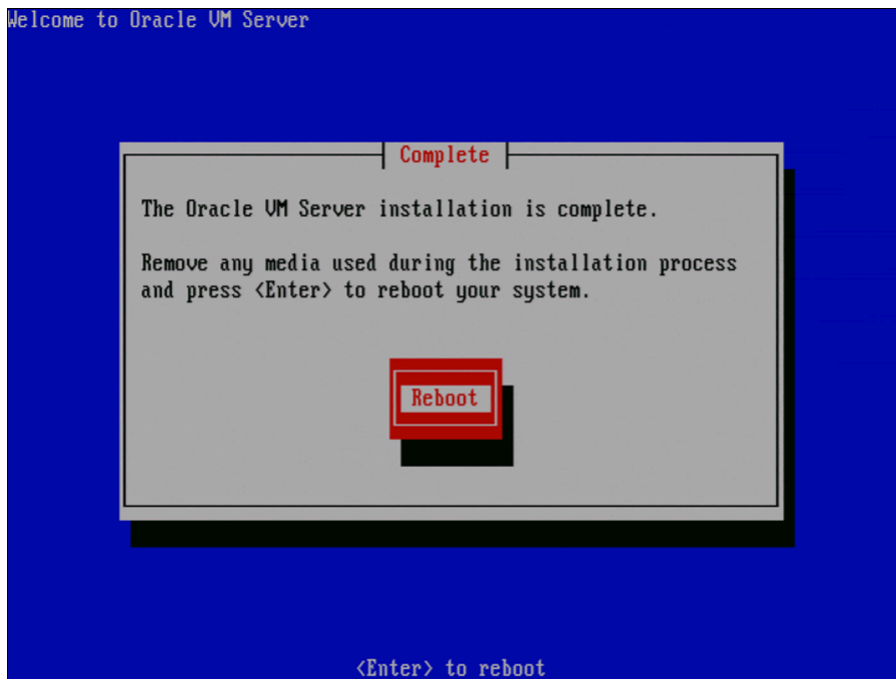
Figure 2–20 Installation to begin screen



Select **OK** and press **Enter**. The installer installs and configures Oracle VM Server. You can follow the progress of the package installation on-screen.

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

Figure 2–21 Complete screen



Remove the Oracle VM Server CD.

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

23. After reboot, the Oracle VM Server status console is displayed.

Figure 2–22 Oracle VM Server status console

```
Oracle VM Server 3.0.0 Console [Alt-F2 for login console]

Local hostname      : ovm3-01
Manager UUID       : Unowned
Hostname           : None
Server IP          : None
Server Pool        : None
Clustered          : No
Server Pool Virtual IP : None
* Cluster state    : Offline *
Master Server      : No
Cluster type       : None
Cluster storage    : None

OVS Agent          : Running
VMs running        : 0
System memory      : 4086
Free memory        : 3455
Uptime             : 0 days, 0 hours, 1 minutes, 32 seconds_
```

The status console displays useful information about the server's hardware and configuration as well as its cluster and server pool membership.

24. To log on to the Oracle VM Server, press Alt+F2 to display the login console.

Figure 2–23 Oracle VM Server login console

```
Oracle VM server release 3.0.0
Hypervisor running in 64 bit mode with Hardware Virtualization support.

Network :
IF : bond0      MAC : 00:30:48:b0:1f:35 IP : 192.168.30.30
IF : eth0       MAC : 00:30:48:b0:1f:35

CPU :
cpu family      : 6
model           : 15
model name      : Intel(R) Xeon(R) CPU           3040 @ 1.86GHz
ovm3-01 login: _
```

You can log into Oracle VM Server as `root`, with the password you set during the install. To switch back to the status console, press `Alt+F1`.

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.

2.3 Changing the Oracle VM Agent Password

The Oracle VM Agent password is used by Oracle VM Manager when you discover an Oracle VM Server. You set this password during the Oracle VM Server installation. This section discusses changing the Oracle VM Agent password.

To change the Oracle VM Agent password:

1. Log into the Oracle VM Server as the root user.
2. Start the `ovs-agent-passwd` utility and pass in the Oracle VM Agent user, `admin`.

```
# ovs-agent-passwd admin
```
3. You are prompted to enter the new password, then confirm the new password by entering it again.

```
Password:
Again:
```

The Oracle VM Agent password is changed.

2.4 Changing the Dom0 Memory Size

When you install Oracle VM Server, the installer sets a default memory size for Dom0. The algorithm used is:

$$\text{dom0_mem} = 502 + \text{int}(\text{physical_mem} * 0.0205)$$

Example sizes are set out in table [Table 2-1](#).

Table 2-1 Default Dom0 Memory Size

Physical Memory	Dom0 Memory
2 GB	543 MB
4 GB	585 MB
8 GB	669 MB
16 GB	837 MB
32 GB	1173 MB
64 GB	1845 MB
128 GB	3188 MB
256 GB	5875 MB
512 GB	11249 MB
1024 GB	21997 MB

Table 2–1 (Cont.) Default Dom0 Memory Size

Physical Memory	Dom0 Memory
2048 GB	43493 MB

You may encounter performance issues if the dom0 memory size is not set appropriately for your needs on the Oracle VM Server. For example, you may encounter performance issues when running more than 10 virtual machines on an Oracle VM Server.

To change the Dom0 memory allocation, edit the `/boot/grub/grub.conf` file on the Oracle VM Server and change the `dom0_mem` parameter, for example, to change the memory allocation to 1024 MB, edit the file to be:

```
kernel /xen.gz console=com1,vga com1=38400,8n1 dom0_mem=1024M
```

Installing Oracle VM Manager

This document is intended for users who want to install Oracle VM Manager. This document provides an overview of the Oracle VM Manager installation process, and includes the following sections:

- [Installation Overview](#)
- [Oracle VM Manager Components](#)
- [Minimum Hardware and Software Requirements](#)
- [Installing Oracle VM Manager](#)
- [Logging in to Oracle VM Manager](#)
- [Starting and Stopping Oracle VM Manager](#)
- [Changing the Oracle VM Manager Admin User Password](#)
- [Backing Up Oracle VM Manager](#)
- [Restoring Oracle VM Manager](#)
- [Uninstalling Oracle VM Manager](#)
- [Troubleshooting](#)
- [Oracle VM Manager Installer Script Options](#)

3.1 Installation Overview

Oracle VM uses an Oracle database as a repository. Oracle VM production deployments require Oracle Database Standard Edition (Oracle SE) or Enterprise Edition (Oracle EE). If you are testing Oracle VM and do not require a supported product, you can use Oracle Database Express Edition (Oracle XE). Oracle XE is not a supported product, and Oracle Support Services cannot supply patches for it. If you require full support from Oracle, you should use Oracle SE or EE as the Oracle VM database repository.

Oracle VM Manager can be installed in a *simple* installation using Oracle XE, or as a *standard* installation using Oracle SE or EE. The simple installation installs Oracle XE on the local host and configures it to use as the repository. The standard option collects information on the pre-installed Oracle Database and uses it as the repository. In both install types, Java, the Oracle VM Manager application, and Oracle WebLogic Server are installed on the local host.

An uninstaller is included with the installation script. The uninstaller gives you options to remove Oracle XE, Java, the Oracle VM Manager application, and the Oracle WebLogic Server.

3.2 Oracle VM Manager Components

The applications necessary to run Oracle VM Manager are packaged in the ISO image. Some or all of the following applications may be installed on the host computer when you install Oracle VM Manager:

Oracle VM Manager

The Oracle VM Manager application provided as a Oracle WebLogic Server domain and container.

Oracle WebLogic Server 11g

Oracle WebLogic Server Release 11g, including Application Development Framework (ADF) Release 11g. For more information about Oracle WebLogic, see the Oracle WebLogic 11g documentation.

Use of Oracle WebLogic Server with Oracle VM Manager is restricted to the servlet functionality without clustering for the Oracle VM Management Server.

Oracle Database

In a new installation, Oracle Database 11g Express Edition (Oracle XE) for Linux 64-bit may be installed. If Oracle XE is already installed, the installer asks whether it should use the existing database, install a new one, or use another database in the local area network (LAN). For more information about Oracle XE, see the Oracle Database Express Edition Documentation for 11g Release 2 (11.2).

You should only use the Oracle XE database as the Oracle VM Manager repository in non-production environments. Oracle XE is not a supported product and Oracle Support Services cannot provide bug fixes or patches for this product. If you are deploying Oracle VM Manager in a production environment, you should use Oracle Database Standard or Enterprise Edition, which you must install separately to Oracle VM. Oracle VM Manager includes a restricted-use license of the Oracle Database (Standard Edition or Enterprise Edition) for use as the Oracle VM Manager Management Repository only. The supported version of Oracle Database are:

- Oracle Database Release 10.2.0.4 or greater
- Oracle Database Release 11.1.0.7 or greater
- Oracle Database Release 11.2.0.1 or greater

3.3 Minimum Hardware and Software Requirements

The following minimum system requirements must be met on the computer on which you want to install Oracle VM Manager:

- [Hardware Requirements](#)
- [Software Requirements](#)

3.3.1 Hardware Requirements

Before you install Oracle VM Manager, make sure that your computer meets the minimum hardware requirements listed in [Table 3-1](#):

Table 3-1 Hardware Requirements for Oracle VM Manager

Items	Minimum Value
Memory	1.5 GB 4 GB with Oracle XE

Table 3–1 (Cont.) Hardware Requirements for Oracle VM Manager

Items	Minimum Value
Processor Type	64 bit
Processor Speed	1.83 GHz*1
Swap Space	2.1 GB
Hard Disk Space	5 GB in /u01 2 GB in /tmp

3.3.2 Software Requirements

Before you install Oracle VM Manager, make sure that your computer meets the following minimum software and configuration requirements:

- [Operating Systems](#)
- [Network](#)
- [Web Browsers](#)
- [Prerequisite Packages](#)
- [Firewall Configuration](#)
- [Installation Ports and Passwords](#)
- [Oracle XE User](#)
- [/u01 Directory](#)
- [Environment Configuration Script](#)

3.3.2.1 Operating Systems

Oracle VM Manager is supported on the following operating systems:

- Oracle Linux 5 Update 5 64-bit or later
- Oracle Linux 6 64-bit or later

You can download Oracle Linux from:

<https://edelivery.oracle.com/linux>

Note: For more information about Oracle Linux, see:

<http://linux.oracle.com/>

<http://www.oracle.com/technetwork/topics/linux/whatsnew/index.html>

3.3.2.2 Network

The host computer on which you install Oracle VM Manager must have the host name correctly configured (*pingable*). Make sure the computer's host name matches the host name in the `/etc/hosts` file. Use the following command to check the host name:

```
# hostname
```

Use a text editor to check the host name in the `/etc/hosts` file. For example, to use VI enter

```
# vi /etc/hosts
```

For example, if the computer's host name is *hostname1.example.com*, and the IP address is *10.1.1.1*, the corresponding item in the */etc/hosts* file should be:

```
10.1.1.1 hostname1.example.com hostname1
```

3.3.2.3 Web Browsers

The Oracle VM Manager user interface is supported in the following Web browsers:

- Microsoft Internet Explorer 9.0 and above
- Mozilla Firefox 3.5 and above
- Apple Safari 5.0 and above
- Google Chrome 1.0 and above

3.3.2.4 Prerequisite Packages

This section contains the prerequisite operating system packages that may be required prior to installing Oracle VM Manager and contains:

- [libaio](#)
- [unzip](#)

3.3.2.4.1 libaio If you select during the Oracle VM Manager installation to use Oracle Database 11g Express Edition (Oracle XE) as the management data repository, you must install the *libaio* package. You must install *libaio* release 0.3.104 or above.

If your computer is configured with Oracle Unbreakable Linux Network (ULN) you can run either of the following commands to update or install *libaio*, whichever is appropriate for your system:

```
# yum install libaio
```

or

```
# up2date libaio
```

You can also find the *libaio* package on the Oracle Linux DVD or ISO file. To install *libaio*, go to the directory where the *libaio.rpm* is located, and enter the command:

```
# rpm -ivh libaio-version.rpm
```

To upgrade *libaio*, you can use the command:

```
# rpm -Uvh libaio-version.rpm
```

3.3.2.4.2 unzip If you have a minimal installation of Oracle Linux, you may not have *unzip* installed, which is a required package for the Oracle VM Manager installer. To install *unzip*, enter:

```
# yum install unzip
```

3.3.2.5 Firewall Configuration

A default Oracle Linux install has the firewall enabled (*iptables* on). In order to use Oracle VM Manager on a system with *iptables* enabled you can either open all the ports used by Oracle VM Manager, or open all ports by disabling *iptables*.

To disable *iptables* and open all ports, enter the following commands as the *root* user:


```
# service iptables stop
# chkconfig iptables off
```

Alternatively, open the required ports by using the `iptables` command as the `root` user:

```
# iptables -A INPUT -m state --state NEW -m tcp -p tcp --dport 1521 -j ACCEPT
# iptables -A INPUT -m state --state NEW -m tcp -p tcp --dport 8080 -j ACCEPT
# iptables -A INPUT -m state --state NEW -m tcp -p tcp --dport 7001 -j ACCEPT
# iptables -A INPUT -m state --state NEW -m tcp -p tcp --dport 7002 -j ACCEPT
# iptables -A INPUT -m state --state NEW -m tcp -p tcp --dport 15901 -j ACCEPT
# iptables -A INPUT -m state --state NEW -m udp -p udp --dport 123 -j ACCEPT
```

To remotely connect to the Oracle VM Manager core API, also enter the following command:

```
# iptables -A INPUT -m state --state NEW -m tcp -p tcp --dport 54321 -j ACCEPT
```

When all the ports have been opened, save the `iptables` configuration:

```
# service iptables save
```

This does not require `iptables` to be restarted as the commands open the ports while `iptables` is running and the `save` ensures they are opened on reboot/restart in future.

To configure the firewall to open the required ports automatically, use the environment configuration script provided with the Oracle VM Manager installer. See [Section 3.3.2.9, "Environment Configuration Script"](#) for information on using this script.

3.3.2.6 Installation Ports and Passwords

During the Oracle VM Manager installation, you may be required to set the following ports and passwords:

- The Oracle XE HTTP port. The default port number is 8080.
- The Oracle XE listening port. The default port number is 1521.
- The password for the Oracle XE `SYS` and `SYSTEM` accounts. You cannot use special characters for this password. Use only alpha numeric characters.
- The password for the Oracle VM Manager OVS database schema.
- The password for the Oracle WebLogic `admin` account.

The password you use for the Oracle WebLogic `admin` account must conform to the following rules:

- Be between 8 and 16 characters in length.
- Contain at least 1 lower case and 1 upper case letter.
- Contain at least 1 numeric value or special character.

3.3.2.7 Oracle XE User

You must have an `oracle` user that is a member of a group named `dba`. If an `oracle` user does not exist on the Oracle VM Manager host, enter the following commands as the `root` user to create the user, create the group, add the user to the group, and set the user's password:

```
# groupadd dba
# useradd -g dba oracle
```

If the `oracle` user already exists, add it to the `dba` group using the following command:

```
# usermod -g dba oracle
```

The *oracle* user must also have a `hard nofiles` and `soft nofiles` minimum of at least 8192, as well as some other security limits set. To set these, edit the `/etc/security/limits.conf` file to include the following:

```
oracle      hard   nofile  8192
oracle      soft   nofile  8192
oracle      soft   nproc   4096
oracle      hard   nproc   4096
oracle      soft   core    unlimited
oracle      hard   core    unlimited
```

To configure the *oracle* user automatically, use the environment configuration script provided with the Oracle VM Manager installer. See [Section 3.3.2.9, "Environment Configuration Script"](#) for information on using this script.

3.3.2.8 /u01 Directory

Oracle VM Manager and supporting products are installed into the `/u01/app/oracle` directory. Before you begin the Oracle VM Manager installation, make sure a `/u01` directory exists, and it has at least 2.4 GB of space available.

To create the `/u01` directory automatically, use the environment configuration script provided with the Oracle VM Manager installer. See [Section 3.3.2.9, "Environment Configuration Script"](#) for information on using this script.

3.3.2.9 Environment Configuration Script

The `createOracle.sh` is a script that automatically:

- Creates the operating system *dba* group
- Creates the *oracle* user and adds it to the *dba* group
- Creates the `/u01` directory
- Sets the required parameters in the `/etc/security/limits.conf` file
- Opens the required ports in the `/etc/sysconfig/iptables` file

To run the `createOracle.sh` script, you must first mount the Oracle VM Manager installer ISO file or CD. See [Section 3.4.1, "Mounting the Oracle VM Manager Installer Media"](#) for information on mounting the installation media. Then enter the following command as the *root* user:

```
# ./createOracle.sh
```

3.4 Installing Oracle VM Manager

It takes approximately 8-15 minutes to complete the installation of Oracle VM Manager, depending on the performance of the Oracle VM Manager host, and the installation type you choose.

Before you can begin the install, download the Oracle VM Manager software from:

<http://edelivery.oracle.com/oraclevm>

This section describes the Oracle VM Manager installation process. It includes the following sections:

- [Mounting the Oracle VM Manager Installer Media](#)
- [Running the Oracle VM Manager Installer](#)

- [Performing a Silent Install](#)
- [Installing and Configuring a VNC Viewer](#)
- [Installation Logs](#)
- [Installation Directories](#)

Note: If you want to install Oracle VM Manager in a virtualized environment, do not install it on Oracle VM Server (dom0) directly; install it into a virtual machine running on an Oracle VM Server.

3.4.1 Mounting the Oracle VM Manager Installer Media

Before you can run the Oracle VM Manager installer, you must mount the installation media. You can either burn the installation media to a CD and mount the CD, or mount the ISO file directly from the hard drive. Which ever way you choose to mount the installation media, you should perform this as the *root* user on the computer on which you want to install Oracle VM Manager.

- To install Oracle VM Manager from a CD, burn the Oracle VM Manager ISO file to a CD. Insert and mount the Oracle VM Manager CD using the following commands:

```
# mkdir mount-point
# mount /dev/cdrom mount-point
```

Where *mount-point* refers to the directory on which you mount the ISO file.

- To install Oracle VM Manager from a hard drive, locate the folder that contains the ISO file. Mount the ISO file to an existing directory using the following commands:

```
# mkdir mount-point
# mount -o loop OracleVM-Manager-version.iso mount-point
```

Where *mount-point* refers to the directory on which you mount the ISO file. For example:

```
# mkdir /OVMCD
# mount -o loop OracleVM-Manager-3.0.x.iso /OVMCD
```

You can find all the mounted files under the directory */OVMCD*.

Note: The location of the mounted Oracle VM Manager ISO file should be accessible by the *oracle* user.

3.4.2 Running the Oracle VM Manager Installer

To install Oracle VM Manager, enter the mount point you created in [Section 3.4.1, "Mounting the Oracle VM Manager Installer Media"](#), for example, */OVMCD* and start the installation with the *runInstaller* script:

```
# cd /OVMCD
# ./runInstaller.sh
```

A set of installer options are displayed:

```
Please select an installation type:
1: Simple
```

```
2: Standard
3: Uninstall
4: Help
```

At the command prompt, enter **1** (a simple install) or **2** (a standard install) to install Oracle VM Manager. If you already have Oracle VM Manager installed and want to uninstall it, select **3** (uninstall).

See [Section 3.4.2.1, "Simple Install"](#) for information on installing Oracle VM Manager and Oracle XE database, using the same password for all components. This should only be used in non-production environments. Oracle XE is not a supported product and Oracle Support Services cannot provide bug fixes or patches for this product.

See [Section 3.4.2.2, "Standard Install"](#) for information on installing Oracle VM Manager as a standard installation. This is the preferred installation type, with options for selecting Oracle SE or EE database as the location for the Oracle VM Manager repository, as well as setting individual passwords for each component.

See [Section 3.10, "Uninstalling Oracle VM Manager"](#) for information on uninstalling Oracle VM Manager, and its components such as Oracle XE (if applicable), Oracle WebLogic Server, ADF and Java.

You can also perform a silent install using the installer script optional parameters. See ["Oracle VM Manager Installer Script Options"](#) at the end of this chapter for the full syntax to the installation script and how to perform a silent install.

The following sections walk through the following simple and standard install options:

- [Simple Install](#)
- [Standard Install](#)
- [Standard Install with a Remote Database](#)

3.4.2.1 Simple Install

The simple installation installs Oracle Database XE, Oracle WebLogic Server, Oracle Application Development Framework (ADF), Java, and Oracle VM Manager on the local system. Use this installation option for testing and non-production environments; do not use this installation option in production environments. Oracle XE is not a supported product and Oracle Support Services cannot provide bug fixes or patches for this product. The following example install shows a simple installation, and sample configuration options.

Example 3-1 Simple installation

```
# ./runInstaller.sh

Oracle VM Manager Release 3.0.x Installer

Oracle VM Manager Installer log file:
  /tmp/ovmm-installer.selfextract_id/install-date.log

Please select an installation type:
  1: Simple
  2: Standard
  3: Uninstall
  4: Help

Select Number (1-4): 1
```

The installation process starts, and the following is displayed:

```
Starting simple installation ...
```

```
Verifying installation prerequisites ...
```

Enter a password to use for all users created during the simple installation. Password requirements are outlined in [Section 3.3.2.6, "Installation Ports and Passwords"](#).

One password is used for all users created and used during the installation.

Enter a password for all logins used during the installation:

Enter a password for all logins used during the installation (confirm):

```
Verifying configuration ...
```

You have the option to continue or abort the installation. Enter **1** to continue.

```
Start installing the configured components:
```

```
  1: Continue
```

```
  2: Abort
```

```
Select Number (1-2): 1
```

```
Retrieving Oracle Database 11g XE ...
```

```
Installing Oracle Database 11g XE ...
```

```
Configuring Oracle Database 11g XE ...
```

```
Installing Java ...
```

```
Creating database schema 'ovs' ...
```

```
Retrieving Oracle WebLogic Server 11g ...
```

```
Installing Oracle WebLogic Server 11g ...
```

```
Retrieving Oracle Application Development Framework (ADF) ...
```

```
Unzipping Oracle ADF ...
```

```
Installing Oracle ADF ...
```

```
Retrieving Oracle VM Manager Application ...
```

```
Extracting Oracle VM Manager Application ...
```

```
Installing Oracle VM Manager Core ...
```

```
Creating Oracle WebLogic Server domain ...
```

```
Starting Oracle WebLogic Server 11g ...
```

```
Configuring data source 'OVMDS' ...
```

```
Creating Oracle VM Manager user 'admin' ...
```

```
Deploying Oracle VM Manager Core container ...
```

```
Deploying Oracle VM Manager UI Console ...
```

```
Deploying Oracle VM Manager Help ...
```

```
Enabling HTTPS ...
```

```
Granting ovm-admin role to user 'admin' ...
```

```
Retrieving Oracle VM Manager Shell & API ...
```

```
Extracting Oracle VM Manager Shell & API ...
```

```
Installing Oracle VM Manager Shell & API ...
```

```
Copying Oracle VM Manager shell to '/usr/bin/ovm_shell.sh' ...
```

```
Enabling Oracle VM Manager service ...
```

When the installation is complete a message similar to the following is displayed:

```
Oracle VM Manager installed.
```

```
Installation Summary
```

```
-----
```

```
Database configuration:
  Database host name       : localhost
  Database instance name (SID): XE
  Database listener port   : 1521
  Application Express port : 8080
  Oracle VM Manager schema : ovs

Weblogic Server configuration:
  Administration username : weblogic

Oracle VM Manager configuration:
  Username                 : admin
  Core management port     : 54321
  UUID                     : 0004fb00000100007c8d58c83316de89
```

Passwords:

There are no default passwords for any users. The passwords to use for Oracle VM Manager, Oracle Database 11g XE, and Oracle WebLogic Server have been set by you during this installation. In the case of a simple install, all passwords are the same.

Oracle VM Manager UI:

```
http://example.com:7001/ovm/console
https://example.com:7002/ovm/console
Log in with the user 'admin', and the password you set during the installation.
```

Please note that you need to install `tight-vnc` on this computer to access a virtual machine's console.

For more information about Oracle Virtualization, please visit:

```
http://www.oracle.com/virtualization/
```

Oracle VM Manager installation complete.

3.4.2.2 Standard Install

The standard installation lets you choose whether to install Oracle Database XE on the local system, or connect to an existing local or remote Oracle database. You set the users and passwords to use for the Oracle Database, Oracle VM Manager database, Oracle WebLogic Server, and Oracle VM Manager during the standard installation. This is the preferred installation method. Use this installation option and select an existing local or remote Oracle SE or EE database in production environments; do not use an Oracle XE database in a production environment. The following example describes how to connect to an existing local Oracle XE database.

Example 3–2 Standard installation with local Oracle XE database

```
# ./runInstaller.sh

Oracle VM Manager Release 3.0.x Installer

Oracle VM Manager Installer log file:
  /tmp/ovmm-installer.selfextract_id/install-date.log

Please select an installation type:
  1: Simple
  2: Standard
  3: Uninstall
```

4: Help

Select Number (1-4): 2

The installation process starts, and the following is displayed:

Starting standard installation ...

Verifying installation prerequisites ...

The following options are displayed. Enter **2** to connect to an existing database on the local system

Oracle Database Repository

=====

Would you like to install Oracle Database 11g Express Edition (XE) or connect to an existing Oracle database?

- 1: Install Oracle Database 11g XE
- 2: Use an existing Oracle database

Select Number (1-2): 2

When prompted, enter the following information as outlined in section [Section 3.3.2.6, "Installation Ports and Passwords"](#):

Enter the Oracle Database hostname [localhost]: example.com

Enter the Oracle Database System ID (SID) [XE]:

Enter the Oracle Database SYSTEM password:

Enter the Oracle Database listener port [1521]:

Enter the Oracle VM Manager database schema [ovs]:

Enter the Oracle VM Manager database schema password:

Enter the Oracle VM Manager database schema password (confirm):

Oracle Weblogic Server 11g

=====

Enter the Oracle WebLogic Server 11g user [weblogic]:

Enter the Oracle WebLogic Server 11g user password:

Enter the Oracle WebLogic Server 11g user password (confirm):

Oracle VM Manager application

=====

Enter the username for the Oracle VM Manager administration user [admin]:

Enter the admin user password:

Enter the admin user password (confirm):

Verifying configuration ...

You have the option to continue or abort the installation. Enter **1** to continue.

Start installing the configured components:

- 1: Continue
- 2: Abort

Select Number (1-2): 1

Installing Java ...

Creating database schema 'ovs' ...

Retrieving Oracle WebLogic Server 11g ...

Installing Oracle WebLogic Server 11g ...

Retrieving Oracle Application Development Framework (ADF) ...

```
Unzipping Oracle ADF ...
Installing Oracle ADF ...

Retrieving Oracle VM Manager Application ...
Extracting Oracle VM Manager Application ...
Installing Oracle VM Manager Core ...
Creating Oracle WebLogic Server domain ...
Starting Oracle WebLogic Server 11g ...
Configuring data source 'OVMS' ...
Creating Oracle VM Manager user 'admin' ...
Deploying Oracle VM Manager Core container ...
Deploying Oracle VM Manager UI Console ...
Deploying Oracle VM Manager Help ...
Enabling HTTPS ...
Granting ovm-admin role to user 'admin' ...

Retrieving Oracle VM Manager Shell & API ...
Extracting Oracle VM Manager Shell & API ...
Installing Oracle VM Manager Shell & API ...
Copying Oracle VM Manager shell to '/usr/bin/ovm_shell.sh' ...
Enabling Oracle VM Manager service ...
```

Installation Summary

Database configuration:

```
Database host name       : example.com
Database instance name (SID): XE
Database listener port   : 1521
Application Express port : None
Oracle VM Manager schema : ovs
```

Weblogic Server configuration:

```
Administration username : weblogic
```

Oracle VM Manager configuration:

```
Username           : admin
Core management port : 54321
UUID               : 0004fb0000010000655d18309c21368c
```

Passwords:

There are no default passwords for any users. The passwords to use for Oracle VM Manager, Oracle Database 11g XE, and Oracle WebLogic Server have been set by you during this installation. In the case of a simple install, all passwords are the same.

Oracle VM Manager UI:

```
http://example.com:7001/ovm/console
https://example.com:7002/ovm/console
```

Log in with the user 'admin', and the password you set during the installation.

Please note that you need to install tight-vnc on this computer to access a virtual machine's console.

For more information about Oracle Virtualization, please visit:

```
http://www.oracle.com/virtualization/
```

Oracle VM Manager installation complete.

3.4.2.3 Standard Install with a Remote Database

The standard installation lets you choose whether to install Oracle Database XE on the local system, or connect to an existing local or remote Oracle database. You set the users and passwords to use for the Oracle Database, Oracle VM Manager database, Oracle WebLogic Server, and Oracle VM Manager during the standard installation. This is the preferred installation method. Use this installation option and select an existing local or remote Oracle SE or EE database in production environments. The following example describes how to install Oracle VM Manager using a remote Oracle database.

Example 3–3 Standard Installation with remote Oracle database

```
# ./runInstaller.sh

Oracle VM Manager Release 3.0.x Installer

Oracle VM Manager Installer log file:
  /tmp/ovmm-installer.selfextract_id/install-date.log

Please select an installation type:
  1: Simple
  2: Standard
  3: Uninstall
  4: Help

Select Number (1-4): 2
```

The installation process starts, and the following is displayed:

```
Starting standard installation ...

Verifying installation prerequisites ...
```

The following menu appears. Enter **2** to install using a remote Oracle database.

```
Oracle Database Repository
=====
Would you like to install Oracle Database 11g Express Edition (XE) or connect to
an existing Oracle database?
  1: Install Oracle Database 11g XE
  2: Use an existing Oracle database

Select Number (1-2): 2
```

When prompted, enter the following information as outlined in [Section 3.3.2.6, "Installation Ports and Passwords"](#):

```
Enter the Oracle Database hostname [localhost]: example.com
Enter the Oracle Database System ID (SID) [XE]: mySID
Enter the Oracle Database SYSTEM password:
Enter the Oracle Database listener port [1521]:
Enter the Oracle VM Manager database schema [ovs]:
Enter the Oracle VM Manager database schema password:
Enter the Oracle VM Manager database schema password (confirm):

Oracle Weblogic Server 11g
=====
Enter the Oracle WebLogic Server 11g user [weblogic]:
```

```
Enter the Oracle WebLogic Server 11g user password:
Enter the Oracle WebLogic Server 11g user password (confirm):

Oracle VM Manager application
=====
Enter the username for the Oracle VM Manager administration user [admin]:
Enter the admin user password:
Enter the admin user password (confirm):

Verifying configuration ...

Start installing the configured components:
  1: Continue
  2: Abort

  Select Number (1-2): 1

Installing Java ...
Creating database schema 'ovs' ...
Retrieving Oracle WebLogic Server 11g ...
Installing Oracle WebLogic Server 11g ...

Retrieving Oracle Application Development Framework (ADF) ...
Unzipping Oracle ADF ...
Installing Oracle ADF ...

Retrieving Oracle VM Manager Application ...
Extracting Oracle VM Manager Application ...
Installing Oracle VM Manager Core ...
Creating Oracle WebLogic Server domain ...
Starting Oracle WebLogic Server 11g ...
Configuring data source 'OVMS' ...
Creating Oracle VM Manager user 'admin' ...
Deploying Oracle VM Manager Core container ...
Deploying Oracle VM Manager UI Console ...
Deploying Oracle VM Manager Help ...
Enabling HTTPS ...
Granting ovm-admin role to user 'admin' ...

Retrieving Oracle VM Manager Shell & API ...
Extracting Oracle VM Manager Shell & API ...
Installing Oracle VM Manager Shell & API ...
Copying Oracle VM Manager shell to '/usr/bin/ovm_shell.sh' ...
Enabling Oracle VM Manager service ...

Oracle VM Manager installed.

Installation Summary
-----
Database configuration:
  Database host name       : example.com
  Database instance name (SID): mySID
  Database listener port   : 1521
  Application Express port  : 8080
  Oracle VM Manager schema : ovs

Weblogic Server configuration:
  Administration username  : weblogic

Oracle VM Manager configuration:
```

```

Username           : admin
Core management port : 54321
UUID               : 0004fb0000010000bc57bd993848e78b

```

Passwords:

There are no default passwords for any users. The passwords to use for Oracle VM Manager, Oracle Database 11g XE, and Oracle WebLogic Server have been set by you during this installation. In the case of a default install, all passwords are the same.

Oracle VM Manager UI:

```

http://example.com:7001/ovm/console
https://example.com:7002/ovm/console

```

Log in with the user 'admin', and the password you set during the installation.

Please note that you need to install `tight-vnc` on this computer to access a virtual machine's console.

For more information about Oracle Virtualization, please visit:

```

http://www.oracle.com/virtualization/

```

Oracle VM Manager installation complete.

3.4.3 Performing a Silent Install

The Oracle VM Manager installer can be installed *silently*, without any intervention. An installation configuration script can be used to provide the installation options, and a set of command line options are available for the installation parameters. See "[Oracle VM Manager Installer Script Options](#)" at the end of this chapter for information on the command line options.

The following example performs a standard, silent install.

Example 3-4 Silent install using configuration file

The command to run the silent standard installation using a configuration is:

```

./runInstaller.sh --config=/path/config.yml --installtype=standard --assumeeyes

```

The configuration file used in this installation example (`config.yml`) installs a local Oracle XE database. Replace the password entry with your own password.

```

db:
  install      : Yes
  host        : localhost
  sys_password : password
  port        : 1521
  sid         : XE
  mgmt_port   : 8080
  user        : ovs
  password    : password

webLogic:
  install      : Yes
  user         : weblogic
  password    : password

java:
  install      : Yes

```

```
ADF:
    install      : Yes

OVMCore:
    install      : Yes
    user         : admin
    password     : password

OVMConsole:
    install      : Yes

OVMShell:
    install      : Yes

onFailure:
    cleanup      : No

OVMUpgrade:
    install      : Yes
```

3.4.4 Installing and Configuring a VNC Viewer

Oracle VM Manager uses a secure tunnel to protect the virtual machine *console* (remote connection utility) data across the network. Oracle VM Manager does not communicate directly with the VNC client, but rather connects via an SSH-encrypted tunnel on port 69xx (where xx is based on the guest to which it is connecting).

Any firewall between the client and Oracle VM Manager needs port 15901 to be open. Any firewall between the Oracle VM Manager and the Oracle VM Servers needs ports 6900 to 6xxx open; one port for each virtual machine on an Oracle VM Server. For example, if you have 100 virtual machines on an Oracle VM Server, you should open ports 6900-6999 (100 ports) on your firewall.

To connect to a virtual machine's console in Oracle VM Manager, you should have a VNC viewer installed somewhere in your environment, either:

- On the Oracle VM Manager host computer
- On the client computer
- On both the Oracle VM Manager host computer and the client computer

The virtual machine console feature uses the client instance of a VNC viewer, if one exists, to connect to a virtual machine's console. If a VNC viewer is not found on the client computer, a request is sent to the Oracle VM Manager host computer to display the VNC viewer.

You can install either TightVNC or RealVNC on the Oracle VM Manager host computer. You can get the latest TightVNC package from:

<http://oss.oracle.com/oraclevm/manager/RPMS/>

Install TightVNC with the command:

```
# rpm -ivh tightvnc-java-version.noarch.rpm
```

You should install TightVNC or RealVNC on the client computer you use to connect to Oracle VM Manager. Oracle recommends you install RealVNC on the client computer as it renders more quickly, and has less mouse control issues than TightVNC.

If you are using a Linux-based operating system on your client computer, you can also install TightVNC as above on your client computer and it is automatically discovered

when you connect to a virtual machine using the console feature in Oracle VM Manager.

3.4.5 Installation Logs

If any errors occur during installation, check the Oracle VM Manager installation log file:

```
/tmp/ovmm-installer.selfextract_id/install-date.log
```

When the installation is complete, the installation log is copied to:

```
/tmp/install-date.log
```

3.4.6 Installation Directories

The locations of the Oracle VM Manager components are listed in [Table 3–2](#).

Table 3–2 Oracle VM Manager *component installation locations*

Component	Location
Java	/u01/app/oracle/java
Oracle WebLogic Server 11g	/u01/app/oracle/Middleware/
Oracle ADF	/u01/app/oracle/Middleware/
Oracle VM Manager application	/u01/app/oracle/ovm-manager-3/
Oracle WebLogic Server domain	/u01/app/oracle/ovm-manager-3/machine1/base_adf_domain

3.5 Logging in to Oracle VM Manager

To open the Login page of Oracle VM Manager, enter the following address in a Web browser:

```
http[s]://hostname:port/ovm/console
```

Where, *hostname* refers to the host name or IP address of the Oracle VM Manager host, and *port* refers to the port number on which Oracle VM Manager is listening.

To connect to Oracle VM Manager using Secure Sockets Layer (SSL) on a host named example.com, use:

```
https://example.com:7002/ovm/console
```

To connect to Oracle VM Manager on a host named example.com, use:

```
http://example.com:7001/ovm/console
```

Enter your Oracle VM Manager administration username in the **Username** field. This is the administration username you create during the Oracle VM Manager install. Enter the password for the Oracle VM Manager administration username in the **Password** field.

To manage the local instance of Oracle VM Manager (installed on localhost), leave the **Management Server URI** field as the default, `tcp://localhost`. If you want to manage a remote instance of Oracle VM Manager, enter the hostname or IP address for that machine, for example:

```
tcp://example.com
```

Now you are logged in, you can create storage repositories, server pools, add Oracle VM Servers, and create virtual machines, import resources, and so on.

The user interface displays context sensitive information, relevant to the selection in the navigator and content panes.

3.6 Starting and Stopping Oracle VM Manager

When Oracle VM Manager is installed, it is set to automatically start when the operating system starts. If you want to disable this, enter:

```
# chkconfig --del ovmm
```

Note: If you chose to start Oracle XE manually during the installation, start Oracle XE *before* you start Oracle VM Manager.

To manually start or stop Oracle VM Manager, as the *root* user, use the syntax:

```
/sbin/service ovmm [start|stop|status]
```

For example, to start Oracle VM Manager:

```
# /sbin/service ovmm start
```

To stop Oracle VM Manager:

```
# /sbin/service ovmm stop
```

To check the status of Oracle VM Manager:

```
# /sbin/service ovmm status
```

The status option returns either a 0 or a 1. A 0 denotes the Oracle VM Manager application is running, and a 1 denotes the application is stopped.

You can also use the Services dialog to start and stop Oracle VM Manager. From the **Applications** menu, select **System Settings > Server Settings > Services**. Or by running the following command in a terminal to use display Services dialog:

```
# /usr/bin/system-config-services
```

In the Service Configuration dialog, select **ovmm** to check the status, and start or stop it.

3.7 Changing the Oracle VM Manager Admin User Password

The Oracle VM Manager *admin* user is used to log in to the Oracle VM Manager user interface. To change the password for the Oracle VM Manager *admin* user account, log in to the Oracle VM Manager host computer as the *root* user and perform the following:

```
# cd /u01/app/oracle/ovm-manager-3/bin
# ./ovm_admin --modifyuser admin password new_password
```

Where *password* is the current password for the admin user and *new_password* is the new password you want to use. The Oracle VM Manager administration tool starts.

Oracle VM Manager Release 3.0.x Admin tool

Please enter the password for weblogic :

Enter the Oracle WebLogic password. You set this during the installation of Oracle VM Manager. The utility connects to Oracle WebLogic and changes the Oracle VM Manager *admin* password.

Initializing WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

Connecting to WebLogic server ...

Connecting to t3://localhost:7001 with userid weblogic ...

Successfully connected to Admin Server 'AdminServer' that belongs to domain 'base_adf_domain'.

Warning: An insecure protocol was used to connect to the server. To ensure on-the-wire security, the SSL port or Admin port should be used instead.

Connected ...

Modifying user 'admin' ...

Modified user 'admin' successfully ...

Disconnected from weblogic server: AdminServer

Exiting...

Exiting WebLogic Scripting Tool.

3.8 Backing Up Oracle VM Manager

To back up Oracle VM Manager, you should back up the Oracle VM Manager configuration file, and the Oracle VM Manager database schema. By default, this schema is named OVS, and this is used in the back up example. Replace the schema name with your own.

The Oracle VM Manager configuration file is stored in the location:

```
/u01/app/oracle/ovm-manager-3/.config
```

This configuration file contains database connection information, ports and the UUID used by Oracle VM Manager. An example of this configuration file follows:

Example 3–5 Oracle VM Manager configuration file

```
DBHOST=<hostname of database server>
SID=<oracle SID>
LSNR=<listener port number defaults 1521>
APEX=<application express port number defaults 8080>
OVSSCHEMA=<database schema name for oracle vm manager defaults ovs>
WLSADMIN=<weblogic server admin defaults weblogic>
OVSADMIN=<oracle vm manager administrator name defaults admin>
COREPORT=<oracle vm manager core port defaults 54321>
UUID=<oracle vm manager uuid>
```

To back up Oracle VM Manager:

1. Back up/copy the Oracle VM Manager configuration file located at

```
/u01/app/oracle/ovm-manager-3/.config
```

2. As the *root* user, shut down Oracle VM Manager:

```
# /sbin/service ovmm stop
```

3. Back up the Oracle VM Manager database OVS schema. Run the Oracle Database EXP utility to export the OVS schema. The following example shows how to run this utility on the local install of Oracle XE. If you are using an Oracle Standard or Enterprise Edition on the local host, or on a remote computer, you should consult your Oracle Database documentation for the appropriate method for your environment.

Log into the operating system as the *oracle* user. You can `su - oracle` as the *root* user if you do not have the password for the *oracle* user.

Run the following commands:

```
export ORACLE_HOME=/u01/app/oracle/product/11.2.0/xe
export PATH=$ORACLE_HOME/bin:$PATH
export ORACLE_SID=XE
exp ovsschema/password grants=y compress=y file=/location/ovsbackup.dmp
```

The *ovsschema* user in the `exp` command should be replaced with the name of your OVS schema; the default schema name in an Oracle XE install is *ovs*. Store the Oracle VM Manager database schema backup along with the Oracle VM Manager configuration file.

3.9 Restoring Oracle VM Manager

To restore Oracle VM Manager, and the Oracle VM Manager database schema from a backup, you must have performed the steps to back up Oracle VM Manager in [Section 3.8, "Backing Up Oracle VM Manager"](#).

To restore Oracle VM Manager from a backup:

1. Restore the Oracle VM Manager OVS database schema. Log into the Oracle Database to perform the following steps to restore the OVS schema from backup. Log into the Oracle Database as the *sys* or *system* user to create the Oracle VM Manager administration user:

```
$ sqlplus system/password
SQL> create user ovs identified by password;
SQL> grant connect, resource to ovs;
SQL> exit;
```

Import the OVS schema from the backup file:

```
# export ORACLE_HOME=/u01/app/oracle/product/11.2.0/xe
# export PATH=$ORACLE_HOME/bin:$PATH
# export ORACLE_SID=XE
# imp ovsschema/password file=/location/ovsbackup.dmp full=y
```

The *ovsschema* user in the `imp` command should be replaced with the name of your OVS schema; the default schema name in an Oracle XE install is *ovs*.

2. If you need to reinstall Oracle VM Manager, use the Oracle VM Manager installation media to perform an install of the software on your server. See [Section 3.4, "Installing Oracle VM Manager"](#) for information on how to perform the installation.

You should perform the install using the `runInstaller.sh --uid uuid` option and provide the UUID from the previous manager installation. The `uid` can be located in the Oracle VM Manager configuration file. For example,

```
# ./runInstaller.sh --uid 0004FB000000100002CB7F2DFFA8D8
```

When the Oracle VM Manager installer prompts for installation information other than passwords, reuse the same usernames for the Oracle Database schema, Oracle WebLogic Server and Oracle VM Manager administration user, as set out in the back up of the Oracle VM Manager configuration file. You must set new passwords as the passwords are not backed up and cannot be restored.

3. If you do not need to reinstall Oracle VM Manager, restart Oracle VM Manager:

```
# /sbin/service ovmm stop
# /sbin/service ovmm start
```

3.10 Uninstalling Oracle VM Manager

Before uninstalling Oracle VM Manager, you may want to back up Oracle VM Manager and the Oracle VM Manager database schema. For information on how to back up Oracle VM Manager, see [Section 3.8, "Backing Up Oracle VM Manager"](#).

You perform the uninstall using the Oracle VM Manager installation script. You must start the installer from the installation media; you cannot perform an uninstall without the installation media as there is no installer located on the Oracle VM Manager host computer. See [Section 3.4.2, "Running the Oracle VM Manager Installer"](#) for information on starting the installer. Follow the prompts to uninstall Oracle VM Manager. See ["Oracle VM Manager Installer Script Options"](#) at the end of this chapter for the full syntax to the installation script.

An example follows which shows an uninstall of a default Oracle VM Manager installation using a local Oracle XE database.

Example 3–6 Uninstall Oracle VM Manager

```
# ./runInstaller.sh

Oracle VM Manager Release 3.0.x Installer

Oracle VM Manager Installer log file:
  /tmp/ovmm-installer.selfextract_id/install-date.log

Please select an installation type:
  1: Simple
  2: Standard
  3: Uninstall
  4: Help

Select Number (1-4): 3
```

The uninstallation process starts, and the following is displayed:

```
Uninstall Oracle VM Manager

Product component : Oracle 11g XE in '/u01/app/oracle/product'
Oracle 11g XE is installed ...
Uninstall options
  1: Uninstall Oracle 11g XE
  2: Skip uninstall of Oracle 11g XE
```

```

    Select Number (1-2): 1
Removing Oracle 11g XE installation ...

Product component : Java in '/u01/app/oracle/java/'

Java is installed ...

Uninstall options
  1: Uninstall Java
  2: Skip uninstall of Java

    Select Number (1-2): 1
Removing Java installation ...

Product component : Oracle VM Manager 3.0 in '/u01/app/oracle/ovm-manager-3/'

Oracle VM 3.0 Manager is installed ...

Uninstall options
  1: Uninstall Oracle VM 3.0 Manager
  2: Skip uninstall of Oracle VM 3.0 Manager

    Select Number (1-2): 1
Removing Oracle VM 3.0 Manager installation ...

Product component : Oracle WebLogic Server in '/u01/app/oracle/Middleware/'

Oracle WebLogic Server is installed

Uninstall options
  1: Uninstall Oracle WebLogic Server
  2: Skip uninstall of Oracle WebLogic Server

    Select Number (1-2): 1
Removing Oracle WebLogic Server installation ...

Uninstall completed ...

```

3.11 Troubleshooting

The section contains information on known issues you may encounter when installing Oracle VM Manager, and explains how to resolve them. You can find additional information on the following Oracle Support Web sites:

- Oracle MetaLink:
 - <http://metalink.oracle.com>
- Oracle Technology Network virtualization forum:

If you contact Oracle Support for assistance with an Oracle VM Manager installation, please include the installation logs. See [Section 3.4.5, "Installation Logs"](#) for information on log file names and locations.

The known installation issues are:

- [libaio Not Installed](#)
- [Cannot Install Oracle XE](#)
- [Cannot Create OVS Database Schema](#)

- [Oracle Database Schema Exists](#)
- [Oracle XE Listener Fails to Start](#)
- [Installation Fails on Non-English Character Set](#)
- [Installation Fails When Using an NIS-based oracle User Account](#)

3.11.1 libaio Not Installed

The following error is displayed during installation if the prerequisite libaio package is not installed:

```
libaio is not installed...
```

Workaround: Install the libaio package. For information on how to install libaio, see [Section 3.3.2.4, "Prerequisite Packages"](#).

3.11.2 Cannot Install Oracle XE

The Oracle VM Manager installer may fail to install Oracle XE and displays the message:

```
Failed: The database instance is not available.
```

You can check the log file at `/tmp/ovmm-installer.selfextract_id/install-date.log` for more detailed information.

Workaround: There are two workarounds to this issue.

1. Make sure that Oracle XE is not installed, or has installed correctly. Use the following command to check the status:

```
$ /etc/init.d/oracle-xe status
```

If an Oracle XE is running, run the Oracle VM Manager installation script to uninstall it, and reinstall Oracle VM Manager.

2. Make sure the computer's host name matches the host name in the `/etc/hosts` file. See [Section 3.3.2.2, "Network"](#) to configure the host name.

3.11.3 Cannot Create OVS Database Schema

You may encounter the following message:

```
Creating the Oracle VM Manager database schema ... Failed.
```

You can check the log file at `/tmp/ovmm-installer.selfextract_id/install-date.log` for more detailed information.

Workaround: Possible workarounds for this issue are:

1. Make sure that Oracle XE is not installed, or has installed correctly. Use the following command to check the status:

```
$ /etc/init.d/oracle-xe status
```

If an Oracle XE is running, run the Oracle VM Manager installation script to uninstall it, and reinstall Oracle VM Manager.

2. If you are installing into an existing Oracle XE database, make sure that you have entered the correct password for the `SYS` account.
3. Reinstall Oracle VM Manager.

3.11.4 Oracle Database Schema Exists

If the installer fails after creating the Oracle Database OVS schema, but before the end of the installation process is complete, you may end up with a schema that cannot be overwritten when you attempt to perform the install again. To resolve this issue, you should drop the OVS schema, then continue with the reinstall again when you have resolved the install problem.

To drop the OVS schema, log into the Oracle Database as the *sys* or *system* user and perform the following steps:

```
$ sqlplus system/password
SQL> drop schema OVS;
SQL> exit;
```

The schema name used in this example uses the default schema name, OVS. If you used a custom schema name during the installation, you should replace OVS with the name of your schema. The name of your schema is located in the Oracle VM Manager configuration file located at:

```
/u01/app/oracle/ovm-manager-3/.config
```

3.11.5 Oracle XE Listener Fails to Start

The Oracle VM Manager installation may fail to start the Oracle XE listener. The Oracle XE listener may fail to start because the host name in the listener.ora file is not mapped to an IP address.

Workaround: Add the IP address and host name to the `/etc/hosts` file. See [Section 3.3.2.2, "Network"](#) to configure the host name. Alternatively, you can specify the IP address in the listener.ora file. The listener.ora file is located in the directory:

```
/usr/lib/oracle/xe/app/oracle/product/11.2.0/server/network/admin
```

Manually start the Oracle XE listener with the command:

```
# /usr/lib/oracle/xe/app/oracle/product/11.2.0/server/bin/lsnrctl start
```

3.11.6 Installation Fails on Non-English Character Set

If the operating system is a non-English character set or language, the Oracle VM Manager installer may display the following error:

```
Update default password failed.
```

Oracle VM Manager only supports the English language and character set.

You can check the log file at `/tmp/ovmm-installer.selfextract_id/install-date.log` for more detailed information.

Workaround: Set the character set to `en_US.UTF-8`:

1. Run the following command to check if the value of LANG is `en_US.UTF-8`:

```
# env | grep LANG
```

2. If the character set is not `en_US.UTF-8`, change it to `en_US.UTF-8`:

```
# export LC_CTYPE="en_US.UTF-8"
```

3. Reinstall Oracle VM Manager.

3.11.7 Installation Fails When Using an NIS-based *oracle* User Account

If the *oracle* user account is created using NIS-based authentication (Network Information Services), the installation fails during the prerequisite check, and the following error is displayed:

```
Verifying installation prerequisites ...  
hardnofiles should be set to 8192 but was 0  
Configuration verification failed ...
```

Workaround: Create a non-NIS-based *oracle* user account on the host computer and rerun the installer.

Oracle VM Manager Installer Script Options

The syntax for the Oracle VM Manager installer script is:

```
runInstaller.sh [-h | --help] [-e | --extract_only] [{-d | --dir=}directory] [{-c | --config=}configfile.yml]
                [{-u | --uid=}uid] [{-i | --installtype={simple | standard | uninstall}}] [-y | --assumeeyes]
```

Options

[-h | --help]

Displays the installer help.

[-e | --extract_only]

Extracts the installer and exits.

[-d | --dir=}directory]

Looks for all Oracle VM Manager installer scripts in the directory.

[-c | --config=}configfile.yml]

Specifies an install configuration file. This file is used to set install options in a silent install.

```
# ./runInstaller.sh --config=/path/myconfig.yml --installtype=standard --assumeeyes
```

The install configuration file should be in the format shown in [Example 3-7](#). You should use spaces and not tabs when formatting this configuration file.

Example 3-7 Oracle VM Manager install configuration file

```
db:
    install      : No
    host         : example.com
    sys_password : mypassword
    port        : 1521
    sid         : mySID
    mgmt_port    : 8080
    user        : ovs
    password     : mypassword

webLogic:
    install      : Yes
    user         : weblogic
    password     : mypassword

java:
    install      : Yes

ADF:
    install      : Yes

OVMCore:
    install      : Yes
    user         : myuser
    password     : mypassword

OVMConsole:
    install      : Yes
```

```
OVMShell:  
  install      : Yes
```

```
onFailure:  
  cleanup     : No
```

```
OVMUpgrade:  
  install     : Yes
```

[{-u | --uuid=}uuid]

Sets the UUID for Oracle VM Manager. Use this option when recovering an Oracle VM Manager instance to use the existing UUID. The Oracle VM Manager configuration file contains the UUID and is stored in the location:

```
/u01/app/oracle/ovm-manager-3/.config
```

```
# ./runInstaller.sh --uuid=0004FB000000100002CB7F2DFFA8D8
```

[{-i | --installtype=}{simple | standard | uninstall}]

Sets the install type to use without being prompted during the install. Use this option during a silent install.

```
# ./runInstaller.sh --config=/path/myconfig.yml --installtype=standard --assumeeyes
```

[-y | --assumeeyes]

Sets each prompt during the install to respond as yes. If combined with the `--installtype=simple` option, performs a *silent* install with the default settings, using a local Oracle XE database.

```
# ./runInstaller.sh --assumeeyes --installtype=simple
```

Upgrading Oracle VM

Oracle VM Release 3.0 is not backwardly compatible with previous Oracle VM releases. If you are using Oracle VM Release 2.x you cannot upgrade to Release 3.0. You must reinstall your Oracle VM Servers and Oracle VM Manager. You can, however, reuse your virtual machine templates from Oracle VM Release 2.x by importing them into Oracle VM 3.0.

The upgrade procedures discussed in this chapter refer to upgrades between Oracle VM 3.x releases, for example, upgrading from Oracle VM Release 3.0.1 to 3.0.2. This chapter outlines the upgrade process for all the components of Oracle VM when upgrading to minimize down time and make sure the upgrade process is performed in the correct order. This document contains:

- [Upgrading Overview](#)
- [Upgrading Oracle VM Manager](#)
- [Upgrading Oracle VM Server](#)

4.1 Upgrading Overview

When upgrading Oracle VM, you must upgrade Oracle VM Manager first, then upgrade the Oracle VM Servers managed by Oracle VM Manager. The Oracle VM Manager upgrade is performed with the Oracle VM Manager ISO file/CD or with the patch zip file. The Oracle VM Server upgrade can be performed using either the Oracle VM Server CD, or using Oracle VM Manager from a Yum repository (which you must create) that retrieves the Oracle VM Server updates from the Unbreakable Linux Network (ULN). To access ULN, you need an Oracle Support contract.

Before you begin the Oracle VM Manager upgrade, download the Oracle VM Manager software from the Oracle Software Delivery Cloud at:

<http://edelivery.oracle.com/oraclevm>

If you want to use the Oracle VM Server CD upgrade method, also download the Oracle VM Server software from the Oracle Software Delivery Cloud:

If you have an Oracle Support contract, you can also download Oracle VM Manager patch updates from My Oracle Support's web site at:

<https://support.oracle.com>

The process you should follow when upgrading Oracle VM is described in a high level view below. More detailed information is available in the sections that follow.

To upgrade Oracle VM:

1. Download the Oracle VM software.

2. To upgrade Oracle VM Manager:
 - a. If you downloaded the Oracle VM Manager ISO file from the Oracle Software Delivery Cloud, mount the Oracle VM Manager ISO file or burn and load the CD on the Oracle VM Manager host computer. If you downloaded an Oracle VM Manager patch file from My Oracle Support, extract the zip file to a directory on the Oracle VM Manager host computer.
 - b. On the Oracle VM Manager host computer, run the `runUpgrade.sh` script from the mounted Oracle VM Manager ISO file/CD or directory to upgrade Oracle VM Manager.
3. To upgrade Oracle VM Server, either:
 - Set up a Yum repository which retrieves updates from the Oracle VM 3.0 channel on ULN. Then, from Oracle VM Manager: add the Yum repository; place each Oracle VM Server into maintenance mode; update each Oracle VM Server; and finally take each Oracle VM Server out of maintenance mode. This is the preferred method of upgrading Oracle VM Servers.
 - Burn the Oracle VM Server ISO file to a bootable CD. Upgrade each Oracle VM Server using the Oracle VM Server CD.

The following sections discuss these steps in more detail:

- [Upgrading Oracle VM Manager](#)
- [Upgrading Oracle VM Server](#)

Caution: When Oracle VM Manager is upgraded, you must upgrade all the Oracle VM Servers managed by that instance of Oracle VM Manager before you can return the Oracle VM environment to normal operation. Rolling upgrades of the Oracle VM Servers is supported, but Oracle VM Manager and all Oracle VM Servers must be at the same software revision level during normal operation of the Oracle VM environment, for example, Oracle VM Manager and all Oracle VM Servers should be running Oracle VM Release 3.0.2.

4.2 Upgrading Oracle VM Manager

Before you upgrade Oracle VM Manager, you should back up the Oracle VM Manager repository and configuration file. See [Section 3.8, "Backing Up Oracle VM Manager"](#) for information on backing up Oracle VM Manager.

WARNING: Do not upgrade Oracle VM Manager using the `up2date` ULN package on the Oracle VM Manager host computer. You must use the Oracle VM Server CD/ISO file or patch zip file to upgrade Oracle VM Manager.

A log of the upgrade is available in the `/tmp/upgrade-date_id.log` file.

To upgrade Oracle VM Manager:

1. Log in to the Oracle VM Manager host computer as the `root` user.
2. Oracle VM Manager must be running to perform the upgrade. If Oracle VM Manager is not running, start it:

```
# service ovmm start
```

WARNING: If you are upgrading from Oracle VM Manager Release 3.0.1 and have not restarted Oracle VM Manager since the initial installation, restart it before you continue with the upgrade to Release 3.0.2. Failure to restart Oracle VM Manager could result in incorrect undeployment of the Oracle VM Manager application during the upgrade.

3. If you downloaded the Oracle VM Manager ISO file from the Oracle Software Delivery Cloud, mount the Oracle VM Manager ISO file. This example uses the ISO file and mounts it to a directory named OVMCD.

```
# mount -o loop OracleVM-Manager-3.0.x.iso /OVMCD
```

Alternatively you can burn the ISO file to a CD or DVD and load the DVD on the Oracle VM Manager host computer. If you downloaded an Oracle VM Manager patch file from My Oracle Support, extract the zip file contents to a directory on the Oracle VM Manager host computer and use that directory for further installation instructions.

4. Start the Oracle VM Manager upgrade script:

```
# cd /OVMCD
# ./runUpgrader.sh
```

Note: You cannot use the absolute path to run the runUpgrader.sh script; you must run it from the directory in which it resides. For example, the following command:

```
# /OVMCD/runUpgrader.sh
```

Results in the error:

```
sh: upgrade: No such file or directory
```

The upgrade starts and reminds you to back up Oracle VM Manager.

```
Oracle VM Manager 3.0.x.xx upgrade utility
Upgrade logfile : /tmp/upgrade-date_id.log
```

It is highly recommended to do a full database repository backup prior to upgrading Oracle VM Manager ...

Press any key to continue ...

Press **Enter** to continue with the upgrade.

```
Oracle VM Manager is running ...
Verifying installation status ...
Read Oracle VM Manager config file ...
Found Oracle VM Manager install files ...
Found Oracle VM Manager upgrader ...
Found Oracle WebLogic Server ...
Found Java ...
Using the following information :
```

```

Database Host      : hostname
Database SID      : SID
Database LSNR     : port
Oracle VM Schema  : ovs
Oracle VM Manager UUID : UUID
Current Build ID  : 3.0.x.xx
Using /tmp/directory for backup and export location.
Using /tmp/directory for patching.
Enter password for user ovs :

```

Enter the password for the *ovs* user, then enter it again to confirm it. The upgrade continues.

```

Please re-enter the password :
Undeploying previous version of Oracle VM Manager application ...
Undeploying Oracle VM Manager help ...
Undeploying Oracle VM Manager console ...
Undeploying Oracle VM Manager core ...
Waiting for Oracle VM Manager core to fully undeploy...
Waiting...
Finished undeploying previous version ...
Exporting Oracle VM Manager repository ...
Please wait as this can take a long time ...
Oracle VM Manager repository export completed ...
Creating backup file ...
Oracle VM Manager repository backup in /tmp/ovm-manager-3-backup-date_id.zip
Deleting Oracle VM Manager repository ...
Oracle VM Manager repository delete completed ...
Upgrading Oracle VM Manager ...
Removing old files ...
Unpacking Oracle VM Manager 3.0.x.xx
Patching Oracle VM Manager repository ...
Please wait as this can take a long time ...
Oracle VM Manager repository patching completed ...
Importing Oracle VM Manager repository ...
Oracle VM Manager repository import completed ...
Redeploying Oracle VM Manager core container ...
Redeploying Oracle VM Manager console ...
Redeploying Oracle VM Manager help ...
Completed upgrade to 3.0.x.xx ...
Writing updated config in /u01/app/oracle/ovm-manager-3/.config
Done ...

```

Oracle VM Manager is upgraded.

4.3 Upgrading Oracle VM Server

Before you upgrade your Oracle VM Servers, you must upgrade the Oracle VM Manager which manages them. See [Section 4.2, "Upgrading Oracle VM Manager"](#) for information on upgrading Oracle VM Manager.

There are two methods you can use to upgrade Oracle VM Servers:

- [Upgrading Oracle VM Server Using a Yum Repository](#)
- [Upgrading Oracle VM Server Using The CD](#)

WARNING: Do not upgrade Oracle VM Servers using the up2date ULN package on the Oracle VM Server. You must use either Oracle VM Manager to perform an Oracle VM Server upgrade from a Yum repository, or the Oracle VM Server CD.

4.3.1 Upgrading Oracle VM Server Using a Yum Repository

This section directs you to the location in the Oracle VM documentation which discusses upgrading the Oracle VM Servers in your Oracle VM Release 3.0 environment using a Yum Repository. This is the preferred method for upgrading Oracle VM Servers.

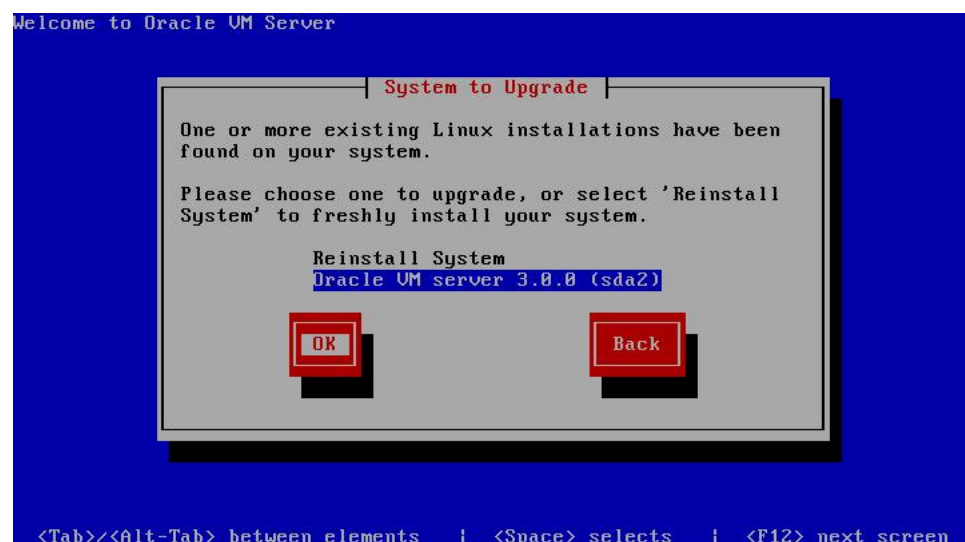
To upgrade Oracle VM Server using a Yum repository, you must first set up a Yum repository based on the Oracle VM Release 3.0 channel on ULN. When you have created the Oracle VM 3.0 Yum repository, add the Yum repository to Oracle VM Manager. You then use Oracle VM Manager to perform the upgrades on the Oracle VM Servers. For information on setting up an Oracle VM Server Yum repository and using Oracle VM Manager to perform the upgrade of Oracle VM Servers, see the *Oracle VM User's Guide*.

4.3.2 Upgrading Oracle VM Server Using The CD

To upgrade the Oracle VM Server using the Oracle VM Server CD:

1. Burn the Oracle VM Server ISO file to a bootable CD.
2. Start the Oracle VM Server installer by following the steps in [Section 2.2, "Installing Oracle VM Server From a CD"](#).
3. If an existing Oracle VM Server installation is found on the computer, the **System to Upgrade** screen is displayed.

Figure 4–1 System to Upgrade screen

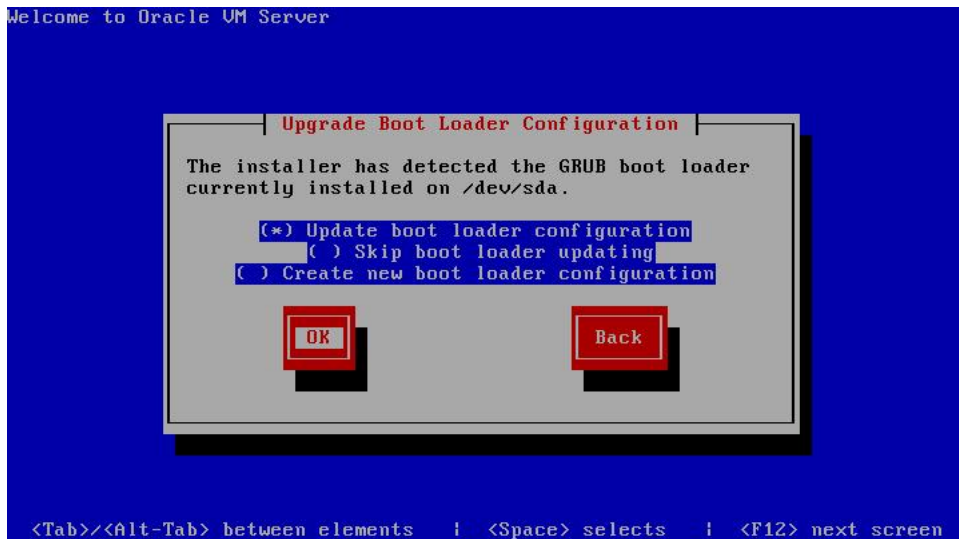


Select **Oracle VM Server 3.x (disk)** to upgrade the existing installation.

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

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

Figure 4–2 Upgrade Boot Loader Configuration screen



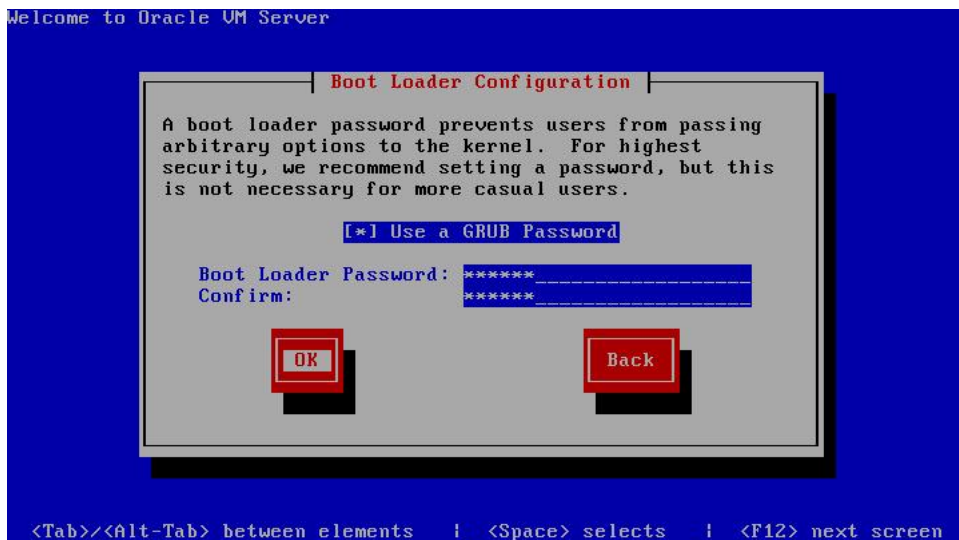
Select **Update boot loader configuration** to update the existing boot loader. Select **Skip boot loader updating** to make no changes to the boot loader. Select **Create new boot loader configuration** to create a new boot loader.

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

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

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

Figure 4–3 Boot Loader Configuration screen

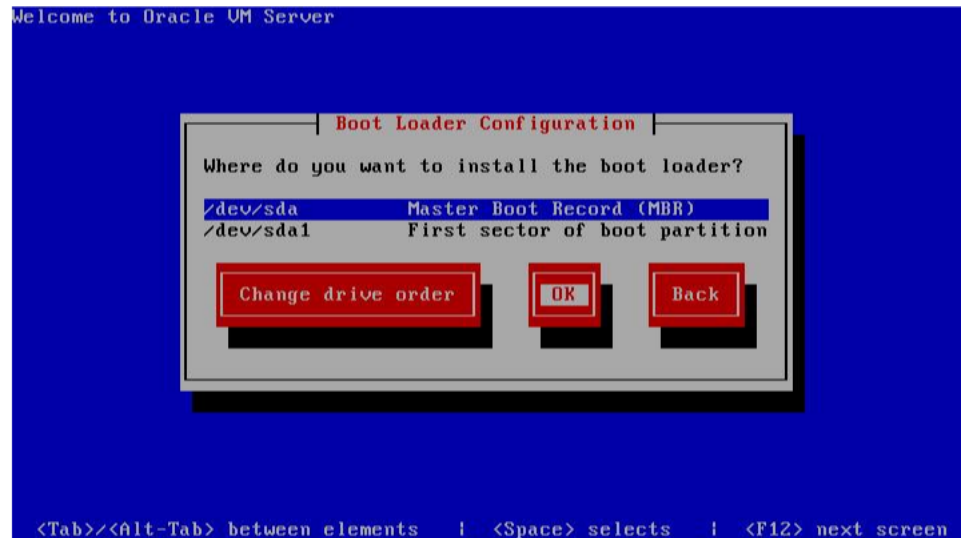


If you want to set a boot loader password to increase security of your machine, select **Use a GRUB Password**, enter a password in the **Boot Loader Password** field, and re-enter the password in the **Confirm** field.

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

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

Figure 4–4 *Boot Loader Configuration screen*

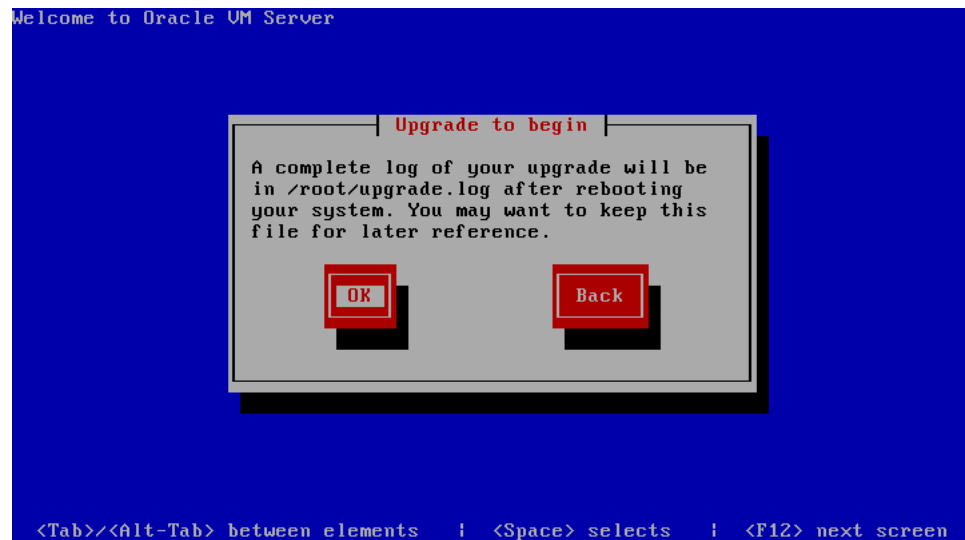


Select **Master Boot Record (MBR)** or **First sector of boot partition** as the location to install the boot loader. If you want to change the drive order, select **Change drive order** and follow the prompts to change the drive order.

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

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

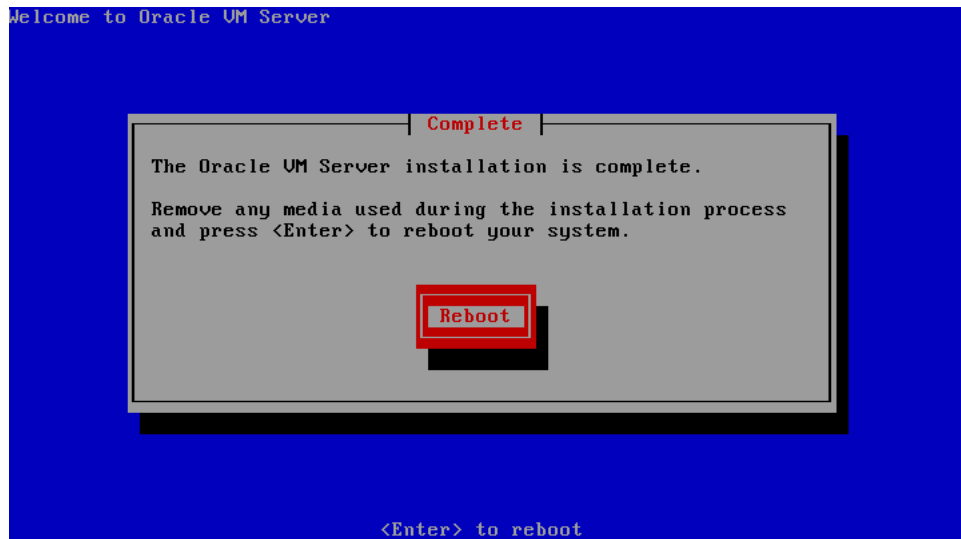
Figure 4–5 *Upgrade to begin screen*



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

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

Figure 4–6 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 console 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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