

Oracle® Server X5-2 Installation Guide for Oracle VM Server

ORACLE®

Part No: E48316-04
November 2015

Part No: E48316-04

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Using This Documentation

- **Overview** – This installation guide contains procedures for installing the Oracle VM Server software, and initial software configuration procedures for bringing the Oracle Server X5-2 from Oracle to a configurable and usable state.
- **Audience** – Technicians, system administrators, authorized service providers, and users.
- **Required knowledge** – Experience installing operating systems.

Product Documentation Library

Documentation and resources for this product and related products are available at <http://www.oracle.com/goto/X5-2/docs>.

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Provide feedback about this documentation at <http://www.oracle.com/goto/docfeedback>.

About Oracle VM Server Installations

This section contains an overview for installing Oracle VM Server on your server.

Description	Links
Review the Oracle VM Server software installation steps.	“Oracle VM Server Installation Task Map” on page 9
Determine which Oracle VM Server software versions are supported.	“Supported Oracle VM Server Software” on page 10
Review Oracle VM Server installation options.	“Oracle VM Server Installation Options” on page 11

Related Information

- [“Installing Oracle VM Server”](#)

Oracle VM Server Installation Task Map

The following table describes the high-level steps for installing Oracle VM Server.

Step	Description	Links
1.	Install the server hardware and configure the service processor.	<ul style="list-style-type: none">■ “Installing the Server Into a Rack” in Oracle Server X5-2 Installation Guide■ “Cabling the Server and Applying Power” in Oracle Server X5-2 Installation Guide■ “Connecting to Oracle ILOM” in Oracle Server X5-2 Installation Guide
2.	Review the Oracle VM Server versions supported on the server.	“Supported Oracle VM Server Software” on page 10
3.	Set up a second system with a static IP address on which you can install the Oracle VM Manager. This system must have one of the following operating systems installed: <ul style="list-style-type: none">■ Oracle Linux 5 Update 5, 64-bit or subsequent releases■ Oracle Linux 6, 64-bit or subsequent releases	Oracle VM Release Notes for Release 3.3, Oracle VM Installation and Upgrade Guide for Release 3.3, and Oracle VM User's Guide for Release 3.3 at: http://docs.oracle.com/cd/E50245_01/index.html

Step	Description	Links
	<ul style="list-style-type: none"> ■ Red Hat Enterprise Linux 5 Update 5, 64-bit or subsequent releases ■ Red Hat Enterprise Linux 6, 64-bit or subsequent releases 	
4.	Obtain the Oracle VM Server installation media and the Oracle VM documentation. The Oracle VM documentation should be used in conjunction with the installation procedures in this guide.	<ul style="list-style-type: none"> ■ An ISO image of the Oracle VM Server installation program is available as a download at: http://edelivery.oracle.com/oraclevm If you want to install the Oracle VM Server ISO image from a CD, burn the Oracle VM Server ISO file to a bootable CD. ■ The Oracle VM documentation is available at: http://docs.oracle.com/cd/E50245_01/index.html
5.	Review the server product notes.	Oracle Server X5-2 Product Notes at: http://www.oracle.com/goto/X5-2/docs
6.	Set up the boot environment, console, boot media, and installation target that you will use to perform the installation.	"Preparing to Install Oracle VM Server"
7.	Install Oracle VM Server and, if necessary, Oracle VM Manager.	For procedures for installing both the Oracle VM Server and the Oracle VM Manager, see "Installing Oracle VM Server".
8.	Perform the post installation tasks, if applicable.	"Post Installation Tasks for Oracle VM Server" on page 33

Supported Oracle VM Server Software

The server supports the following Oracle VM Server software.

VM Software	Edition
Oracle VM Server	Release 3.3

If you requested that the Oracle VM Server software be preinstalled on the server when you placed your order, Oracle VM Server 3.3 was preinstalled at the factory. If the Oracle VM software is preinstalled on your server, but you do not want to use it, you can install any other supported operating system or virtual machine software on your server. For an updated list of operating systems supported by the server, refer to the latest version of the *Oracle Server X5-2 Product Notes* at <http://www.oracle.com/goto/X5-2/docs>.

The Oracle VM Server Hardware Compatibility List (HCL) identifies the latest operating system version supported on Oracle hardware. To find the latest Oracle VM Server version supported for the Oracle Server X5-2, go to the following site and search using your server model number:

<http://linux.oracle.com/pls/apex/f?p=117:1:3991604960223967>

Note - If Oracle VM Server was preinstalled, it was installed with the server set to Legacy BIOS boot mode. If you choose to boot the server in UEFI boot mode, the preinstalled image is not accessible and cannot be used. Oracle VM Server does not support UEFI boot mode.

Related Information

- [“Installing Oracle VM Server”](#)

Oracle VM Server Installation Options

You can choose to install Oracle VM Server on a single server or on multiple servers. The scope of this document is for single server Oracle VM Server installations. The table below provides some information about these two installation options.

Option	Description
Multiple servers	You can use Oracle Enterprise Manager Ops Center to install an operating system on multiple servers. For information, go to http://www.oracle.com/technetwork/oem/ops-center/index.html .
Single server	Install Oracle VM Server to a single server using one of the following methods: <ul style="list-style-type: none"> ■ Locally: Perform the Oracle VM Server installation with physical access to the server. This option is recommended if you have just completed the physical installation of the server in the rack. ■ Remotely: Perform the Oracle VM Server installation from a remote location. This option uses the Oracle ILOM Remote System Console Plus application to access Oracle System Assistant or to perform a manual Oracle VM Server installation.

Single-Server Installation Methods

Select a method for providing the Oracle VM Server installation media. Use the following information to determine the local or remote Oracle VM Server installation that best meets your needs.

Media Delivery Method	Additional Requirements
Local assisted Oracle VM Server installation – Uses Oracle System Assistant.	A monitor, USB keyboard, USB mouse, Oracle System Assistant USB drive, and the Oracle VM Server installer

Media Delivery Method	Additional Requirements
<p>Remote assisted Oracle VM Server installation – Uses Oracle System Assistant.</p>	<p>ISO image. For more information, see “Assisted Oracle VM Server Installation” on page 12.</p> <p>A remote system with a web browser, access to the Oracle VM Server installer ISO image, and network access to the server management port (NET MGT). For more information, see “Assisted Oracle VM Server Installation” on page 12.</p>
<p>Local Oracle VM Server installation using a CD/DVD drive – Uses a physical CD/DVD drive connected to the server.</p>	<p>A monitor, USB keyboard, USB mouse, CD/DVD drive, and the Oracle VM Server installer ISO image on a CD/DVD. For more information, see “Manual Oracle VM Server Installation” on page 12.</p>
<p>Remote Oracle VM Server installation using a CD/DVD drive or CD/DVD ISO image – Uses a redirected physical CD/DVD drive on a remote system running the Oracle ILOM Remote System Console Plus application.</p>	<p>A remote system with a web browser, an attached physical CD/DVD drive, the Oracle VM Server installer ISO image on a CD/DVD, and network access to the server management port (NET MGT). For more information, see “Manual Oracle VM Server Installation” on page 12.</p>
<p>PXE Image – Uses the server Preboot eXecution Environment (PXE) to launch the Oracle VM installer from a network interface.</p>	<p>A PXE server with the Oracle VM installation image.</p> <p>Note - PXE booting the Oracle VM installation image is not included in this scope of this document. For instructions on PXE booting the Oracle VM installer, refer to the Oracle VM documentation at http://docs.oracle.com/cd/E50245_01/index.html</p>

Assisted Oracle VM Server Installation

This method involves using Oracle System Assistant. You deliver the Oracle VM Server installation media on either a local or remote CD/DVD drive, USB device, or CD/DVD image. Oracle System Assistant guides the installation process. Your server must support Oracle System Assistant, and it must be installed in the server.

Manual Oracle VM Server Installation

With this method, you deliver the Oracle VM Server distribution media on either a local or remote CD/DVD drive, USB device, or CD/DVD image. The drivers for your server are included with the Oracle VM Server distribution media. To install Oracle VM Server, use the distribution media's installation wizard.

Preparing to Install Oracle VM Server

This section describes how to prepare your environment for an Oracle VM Server installation.

Description	Links
Set the BIOS to optimal defaults, and ensure that the boot mode is set to Legacy BIOS.	“Preparing the Boot Environment” on page 13
Access the host console locally or remotely.	“Accessing the Host Console” on page 18
Prepare the boot media.	“Preparing the Boot Media” on page 19
Prepare the installation target.	“Preparing the Installation Target” on page 20

Related Information

- [“Installing Oracle VM Server on a Single System Using Oracle System Assistant” on page 24](#)
- [“Installing Oracle VM Server on a Single System Manually” on page 29](#)

Preparing the Boot Environment

Before you install Oracle VM Server, ensure that the BIOS settings are configured to support the type of installation you plan to perform. You can change BIOS settings, such as the boot order and boot mode in the BIOS Setup Utility.

The following topics provide specific instructions on how to configure BIOS to support the installation:

- [“Verify the BIOS Optimal Defaults” on page 14](#)
- [“Set the Boot Mode” on page 15](#)

For more information about changing boot properties, refer to the *Oracle X5 Series Servers Administration Guide* at <http://www.oracle.com/goto/x86AdminDiag/docs>.

▼ Verify the BIOS Optimal Defaults

Note - If the server is newly installed and this is the first time that an operating system has been installed, then BIOS is probably configured to its default settings and you do not have to perform this task.

In the BIOS Setup Utility, you can set optimal defaults, as well as view and edit BIOS settings, as needed. By setting optimal defaults, you ensure that the server is operating efficiently with a known-good configuration. You can review the optimal defaults in the *Oracle Server X5-2 Service Manual*.

Any changes you make in the BIOS Setup Utility (using the F2 key) are permanent until the next time you change them.

In addition to using the F2 key to view or edit the BIOS settings, you can use the F8 key during the boot process to specify a temporary boot device. If you use F8 to set a temporary boot device, this change is only in effect for the current system boot. The permanent boot device specified through F2 will be in effect after booting from the temporary boot device.

Before you begin, ensure that the following requirements are met:

- The server is equipped with a hard disk drive (HDD) or solid state drive (SDD).
- The HDD or SDD is properly installed in the server. For instructions, refer to “[Servicing Storage Drives \(CRU\)](#)” in *Oracle Server X5-2 Service Manual*.

1. Access the host console.

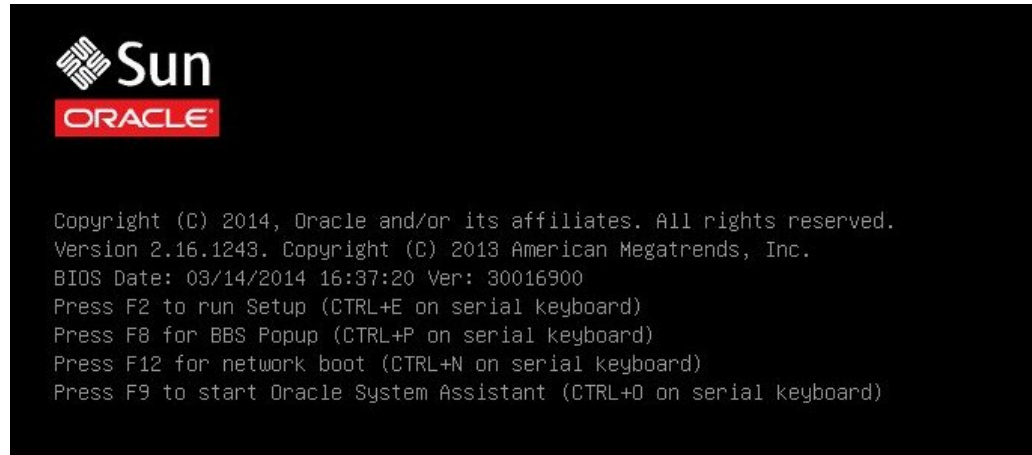
For instructions, see “[Accessing the Host Console](#)” on page 18.

2. Power on or reset the server.

For example, to reset the server, do one of the following:

- **From the local server**, press the Power button on the front panel of the server (for approximately 1 second) to power off the server, and then press the Power button again to power on the server.
- **From the Oracle ILOM web interface**, select Host Management → Power Control, and then select Reset from the Select Action list box.
- **From the Oracle ILOM command-line interface**, type `reset /System`.

The server begins the boot process, and the BIOS screen appears.



Note - The next events occur very quickly; therefore, focused attention is needed for the following steps. Watch carefully for these messages as they appear on the screen for a brief time.

3. When prompted in the BIOS screen, press the F2 key to access the BIOS Setup Utility.

After a few moments, the BIOS Setup Utility appears.

4. Press the F9 key to automatically load the optimal default settings.

A message appears prompting you to continue this operation by selecting OK or to cancel this operation by selecting CANCEL.

5. In the message, highlight OK, and then press Enter.

6. To save your changes and exit the BIOS Setup Utility, press the F10 key.

Alternatively, you can select Save and Reset from the Save & Exit menu.

▼ Set the Boot Mode

The server is equipped with Unified Extensible Firmware Interface (UEFI), which supports both legacy BIOS and UEFI boot modes. Legacy BIOS boot mode is enabled by default.

Oracle VM Server *does not* support UEFI boot mode. Therefore, you must ensure that the boot mode is set to legacy BIOS. To determine or change the boot mode, see the following procedure.

1. Access the host console.

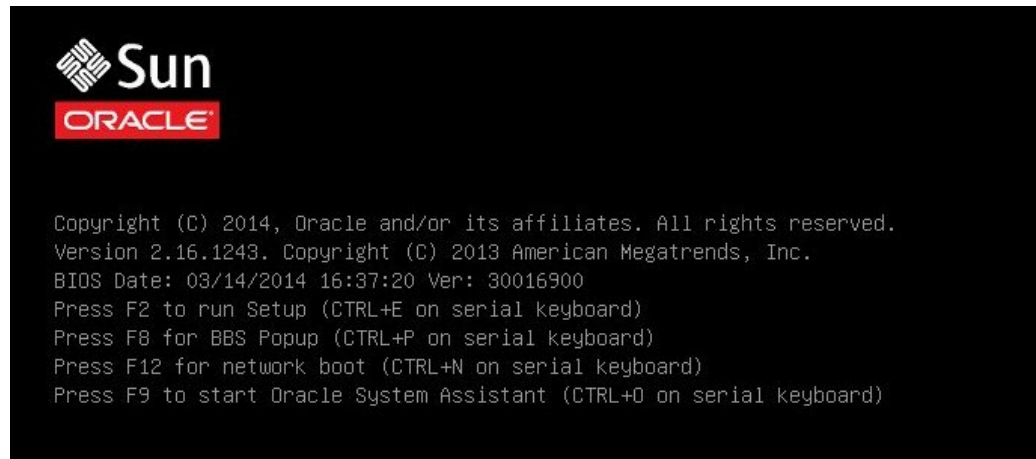
For instructions, see [“Accessing the Host Console” on page 18](#).

2. Power on or reset the server.

For example, to reset the server, do one of the following:

- **From the local server**, press the Power button on the front panel of the server (for approximately 1 second) to power off the server, and then press the Power button again to power on the server.
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The server begins the boot process, and the BIOS screen appears.



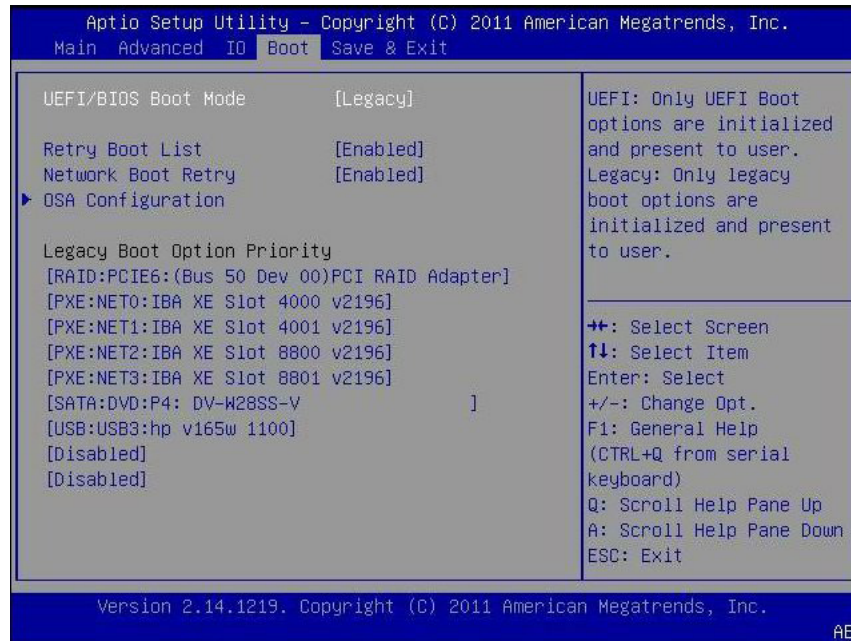
Note - The next events occur very quickly; therefore, focused attention is needed for the following steps. Watch carefully for these messages as they appear on the screen for a brief time.

3. When prompted in the BIOS screen, press the F2 key to access the BIOS Setup Utility.

After a few moments, the BIOS Setup Utility appears.

4. **In the BIOS Setup Utility, use the arrow keys to navigate to the Boot menu.**

The Boot menu appears. The UEFI/BIOS Boot Mode field displays the current boot mode.



Note - The options in the boot order list differ depending on the storage drive configuration and whether you have enabled the Persistent Boot Support feature. For more information about Persistent Boot Support, refer the *Oracle X5 Series Servers Administration Guide* at <http://www.oracle.com/goto/x86AdminDiag/docs>.

5. **To change the boot mode, do the following:**

- a. **Select the UEFI/BIOS Boot Mode field, and then press Enter.**
- b. **Select your preferred boot mode, and then press Enter.**

Note - Oracle VM does not support UEFI boot mode.

6. **Press the F10 key to save your changes and exit the BIOS Setup Utility.**

Accessing the Host Console

To view the Oracle VM Server installation wizard, you must have access to the host console, either locally or remotely. This section provides instructions for viewing graphical output from the host.

- [“Access the Host Console Through a Local Graphics Monitor”](#) on page 18
- [“Access the Host Console Through the Oracle ILOM Remote System Console Plus”](#) on page 18

▼ Access the Host Console Through a Local Graphics Monitor

1. **Connect a VGA monitor to the VGA port on the server.**
2. **Connect a USB keyboard and mouse to the USB connectors on the server.**

Related Information

- [“Cabling the Server and Applying Power”](#) in *Oracle Server X5-2 Installation Guide*

▼ Access the Host Console Through the Oracle ILOM Remote System Console Plus

The following procedure describes how to access the host console from a remote system through the Oracle ILOM remote console application. To log in to Oracle ILOM remotely, you must know the IP address of the server service processor (SP). For instructions, refer to [“Log In to Oracle ILOM Using a Remote Ethernet Connection”](#) in *Oracle Server X5-2 Installation Guide*.

1. **On a remote system with network access to the server network management port (NET MGT), open a web browser.**
2. **In the address bar, type the IP address of the server SP, and then press Enter.**
3. **Log in to the Oracle ILOM web interface.**
The default Oracle ILOM user name is root and the default password is changeme.
The Oracle ILOM Summary Information page appears.
4. **In the Actions panel, click the Remote Console Launch button.**

The Oracle ILOM Remote System Console Plus screen appears.

Related Information

- Oracle ILOM 3.2 Documentation Library at: <http://www.oracle.com/goto/ILOM/docs>

Preparing the Boot Media

The Oracle VM Server installer image must be accessible to the server, either locally or remotely. The following sections describe how to prepare the Oracle VM Server installer boot media:

- “Set Up the Boot Media for a Local Installation” on page 19
- “Set Up the Boot Media for a Remote Installation” on page 19

▼ Set Up the Boot Media for a Local Installation

1. On a system with a CD/DVD burner, download the Oracle VM Server installer ISO image from the Oracle Software Delivery Cloud web site at <http://edelivery.oracle.com/oraclevm>.
2. Burn the ISO image to a CD or DVD.
3. Insert the Oracle VM Server installation CD or DVD into a DVD drive attached to the server:
 - If the server is equipped with an optional DVD drive, insert the installation media into the DVD drive on the server front panel.
 - If the server is not equipped with a DVD drive, attach a DVD drive to one of the server USB ports, and then insert the installation media into the drive. For information about how to attach local devices to the server, refer to “Cabling the Server and Applying Power” in *Oracle Server X5-2 Installation Guide* .

▼ Set Up the Boot Media for a Remote Installation

1. On a remote system with network access to the server network management port (NET MGT), download the Oracle VM Server installer ISO image from the Oracle Software Delivery Cloud web site at <http://edelivery.oracle.com/oraclevm>.

Alternatively, you can do either of the following:

- **Burn the installation image to a CD or DVD, and then insert the installation media into a DVD drive attached to the remote system.**
- **Download the installation image to another location on the network, and then redirect the image to the server service processor using NFS or Samba protocol.**

For instructions on redirecting the ISO image from another location on the network, refer to the Oracle ILOM Remote Device section in the *Oracle ILOM Administrator's Guide for Configuration and Maintenance*, or to the More Details link in the Oracle ILOM Remote Control → Host Storage Device web interface page.

2. **Launch the Oracle ILOM Remote System Console Plus on the remote system.**

For instructions, see [“Access the Host Console Through the Oracle ILOM Remote System Console Plus” on page 18.](#)

3. **In the KVMS menu of the Oracle ILOM Remote System Console Plus application, select Storage.**

The Storage Devices dialog box appears.

4. **In the Storage Devices dialog box, perform the following steps:**

- a. **Deselect SSL Enabled, and then click Add.**

The Add Storage Devices dialog box appears.

- b. **Browse to the ISO image, select it, and then click Select.**

The image file appears in the Storage Devices dialog box.

- c. **Select the ISO image, and then click Connect.**

The ISO image is mounted to the remote console and can be used to perform the OS installation.

Preparing the Installation Target

Before you boot the Oracle VM Server installer, select and prepare an installation target:

- [“Installation Target Options” on page 21](#)
- [“Set Up a Local Storage Drive \(HDD, SSD, or RAID Volume\) as the Installation Target” on page 22](#)

- [“Set Up a Fibre Channel Storage Area Network Device as the Installation Target” on page 22](#)

Installation Target Options

With the exception of the embedded Oracle System Assistant USB flash drive (which is reserved for Oracle System Assistant) and the optional NVM Express drives on the server front panel, you can install the software on any of the storage drives installed in the server. Hard disk drives (HDDs), solid state drives (SSDs), and RAID volumes are valid installation targets for Oracle VM Server.

For servers equipped with a Fibre Channel PCIe host bus adapter (HBA), you can choose to install the operating system to an external Fibre Channel storage device.

Note - NVMe drives are not supported on servers running the Oracle VM software. If your server is equipped with NVMe drives, you have to install either the Oracle Solaris or Oracle Linux operating system to use them.

Important: Internal, Embedded Oracle System Assistant USB Flash Drive Should Not Be Used as a Boot or Storage Drive

The server ships with an embedded Oracle System Assistant USB flash drive. This drive contains Oracle System Assistant, device drivers, and firmware for Oracle ILOM, BIOS, and supported IO devices. During the installation of all supported operating systems, this USB flash drive is detected as a SCSI disk with a single partition that is read/write capable and is displayed as `Oracle_SSM` in the list of drives. You should be careful not to overwrite this device when performing any of the following operations:

- Operating system installations
- Disk or partition formatting operations
- General disk, partition or file system maintenance

In the event that this USB flash drive is overwritten, the original contents can be restored. To restore the contents of the USB flash drive, obtain the Oracle System Assistant recovery and ISO update image and use it to perform a restore operation.

For instructions for downloading the Oracle System Assistant recovery and ISO update image and restoring the Oracle System Assistant flash drive, refer to the *Oracle X5 Series Servers Administration Guide* at <http://www.oracle.com/goto/x86AdminDiag/docs>.

▼ Set Up a Local Storage Drive (HDD, SSD, or RAID Volume) as the Installation Target

1. **Ensure that the target hard disk drive (HDD) or solid state drive (SSD) is properly installed and powered on.**

For more information about installing and powering on a HDD or SSD, refer to “[Servicing Storage Drives \(CRU\)](#)” in *Oracle Server X5-2 Service Manual* .

2. **Ensure that the target drives are configured to suit your environment.**

By default, each physical drive on the server is configured as a logical RAID 0 volume. To implement an alternative configuration, refer to the following resources:

- “[Configuring Storage Drives for Operating System Installation](#)” in *Oracle Server X5-2 Installation Guide*
- *Oracle X5 Series Servers Administration Guide* at <http://www.oracle.com/goto/x86AdminDiag/docs>

▼ Set Up a Fibre Channel Storage Area Network Device as the Installation Target

1. **Ensure that the PCIe host bus adapter (HBA) is properly installed in the server.**

For more information about installing a PCIe HBA option, refer to “[Servicing PCIe Cards \(CRU\)](#)” in *Oracle Server X5-2 Service Manual* .

2. **Ensure that the storage area network (SAN) is installed and configured to make the storage device visible to the host on the server.**

For instructions, refer to the documentation supplied with the Fibre Channel HBA.

Installing Oracle VM Server

This section provides instructions for installing Oracle VM Server onto the server.

Description	Links
Preinstallation requirements.	“Before You Begin” on page 23
Using Oracle System Assistant to install Oracle VM.	“Installing Oracle VM Server on a Single System Using Oracle System Assistant” on page 24
Using media to install the Oracle VM software on a single server.	“Installing Oracle VM Server on a Single System Manually” on page 29
Performing post installation tasks.	“Post Installation Tasks for Oracle VM Server” on page 33

Before You Begin

Ensure that the following requirements are met:

- You have prepared the boot environment. For more information, see [“Preparing the Boot Environment” on page 13](#).
- You have access to the host console. For more information, see [“Accessing the Host Console” on page 18](#).
- You have prepared the boot media. For more information, see [“Preparing the Boot Media” on page 19](#).
- You have selected the installation target and ensured that it is properly installed. For more information, see [“Preparing the Installation Target” on page 20](#).
- Two systems with static IP addresses have been set up:
 - One system to install Oracle VM Server.
 - One system for Oracle VM Manager with one of the following:
 - Oracle Linux 5 Update 5, 64-bit or subsequent releases
 - Oracle Linux 6, 64-bit or subsequent releases
 - Red Hat Enterprise Linux 5 Update 5, 64-bit or subsequent releases
 - Red Hat Enterprise Linux 6, 64-bit or subsequent releases

- You have reviewed the additional preinstallation tasks and requirements in the *Oracle VM Installation and Upgrade Guide for Release 3.3* at http://docs.oracle.com/cd/E50245_01/index.html.
- You have access to the Oracle VM installation documentation. The Oracle VM Release 3.3 Documentation Library is available at http://docs.oracle.com/cd/E50245_01/index.html.

Installing Oracle VM Server on a Single System Using Oracle System Assistant

The Oracle System Assistant Install OS task is the recommended method for installing Oracle VM Server.

- [“Install Oracle VM Server Using Oracle System Assistant” on page 24](#)

▼ Install Oracle VM Server Using Oracle System Assistant

Before you begin, review the installation prerequisites in [“Before You Begin” on page 23](#).

1. **Ensure that the installation media is available to boot.**
For instructions, see [“Preparing the Boot Media” on page 19](#).
2. **To launch Oracle System Assistant directly from the Oracle ILOM web interface (recommended), perform the following steps; otherwise, proceed to the next step.**
 - a. **On a remote system with network access to the server network management port (NET MGT), open a web browser.**
 - b. **In the address bar, type the IP address of the server service processor, and then press Enter.**
 - c. **Log in to the Oracle ILOM web interface.**

The Oracle ILOM Summary Information page appears.

The screenshot shows the Oracle Integrated Lights Out Manager (ILOM) v3.2.4.0 interface. The main content area is titled "Summary Information" and contains the following sections:

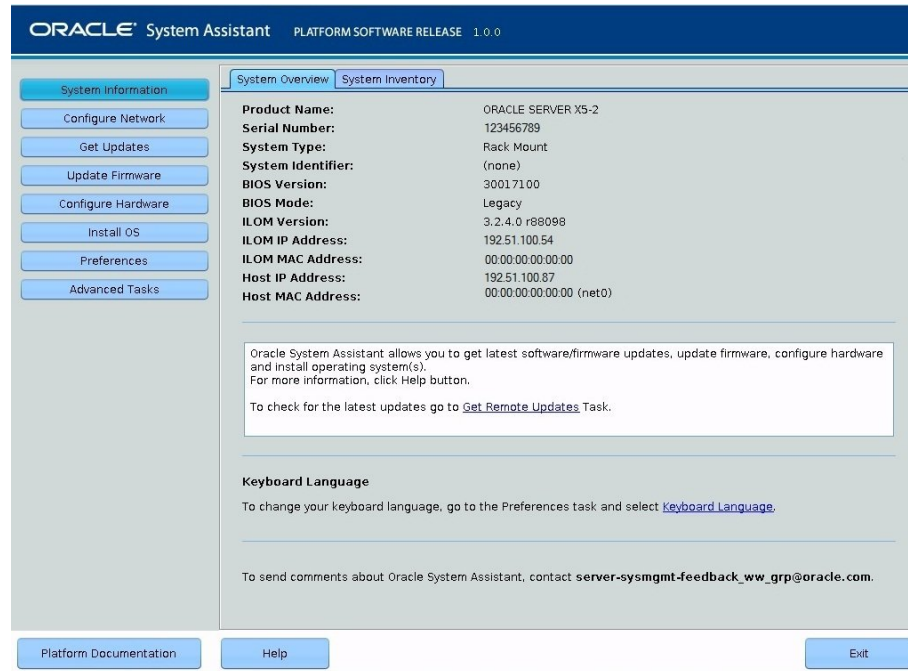
- General Information:** A table listing system details.

System Type	Rack Mount
Model	ORACLE SERVER X5-2
QPart ID	Q0000
Part Number	X5-2
Serial Number	1404NM101B
System Identifier	-
System Firmware Version	3.2.4.0
Primary Operating System	Not Available
Host Primary MAC Address	00:00:00:00:00:00
ILOM Address	192.0.2.100
ILOM MAC Address	00:00:00:00:00:00
- Actions:** A panel with controls for Power State (ON/OFF), Locator Indicator (OFF), and buttons for Oracle System Assistant (Launch), System Firmware Update (Update), and Remote Console (Launch).
- Status:** A table showing overall status and details for various subsystems.

Subsystem	Status	Details	Inventory
Processors	Service Required	Processor Architecture: x86 64-bit Processor Summary: Two Intel Xeon Processor E5 V3 Series	Processors: 2 / 2 (Installed / Maximum)
Memory	OK	Installed RAM Size: 16 GB	DIMMs: 2 / 24 (Installed / Maximum)
Power	OK	Permitted Power Consumption: 606 watts Actual Power Consumption: 157 watts	PSUs: 2 / 2 (Installed / Maximum)
Cooling	OK	Inlet Air Temperature: 21 °C Exhaust Air Temperature: 36 °C	Chassis Fans: 16 / 16 (Installed / Maximum) PSU Fans: Not Supported
Storage	Not Available	Installed Disk Size: Not Available Disk Controllers: Not Available	Internal Disks: 4 / 8 (Installed / Maximum)

- d. In the Actions panel on the Oracle ILOM Summary Information page, click the Oracle System Assistant Launch button.

The Oracle System Assistant System Overview screen appears.



e. Proceed to [Step 4](#).

3. To launch Oracle System Assistant using the Oracle ILOM Remote System Console Plus and BIOS, perform the following steps:

a. From the Oracle ILOM Summary Information page, click the Remote Console Launch button.

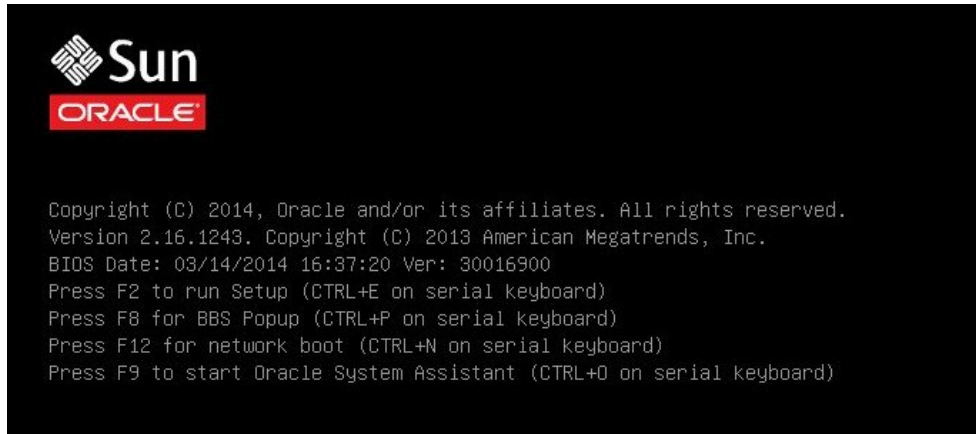
The Oracle ILOM Remote System Console Plus window appears.

b. Reset or power on the server.

For example, to reset the server, do one of the following:

- **From the local server**, press the Power button on the front panel of the server (for approximately 1 second) to power off the server, and then press the Power button again to power on the server.
- **From the Oracle ILOM web interface**, select Host Management → Power Control, and then select Reset from the Select Action list box.
- **From the Oracle ILOM command-line interface**, type `reset /System`.

The server begins the boot process, and the BIOS screen appears in the Oracle ILOM Remote System Console Plus window.



Note - The next events occur very quickly; therefore, focused attention is needed for the following steps. Watch carefully for these messages as they appear on the screen for a brief time. You might want to enlarge the size of your screen to eliminate scroll bars.

c. Press the F9 key.

The Oracle System Assistant System Overview screen appears.

4. In the navigation pane, click the Get Updates button to update the Oracle System Assistant software.

This action ensures that the server has the latest software release package installed before you begin the operating system installation.

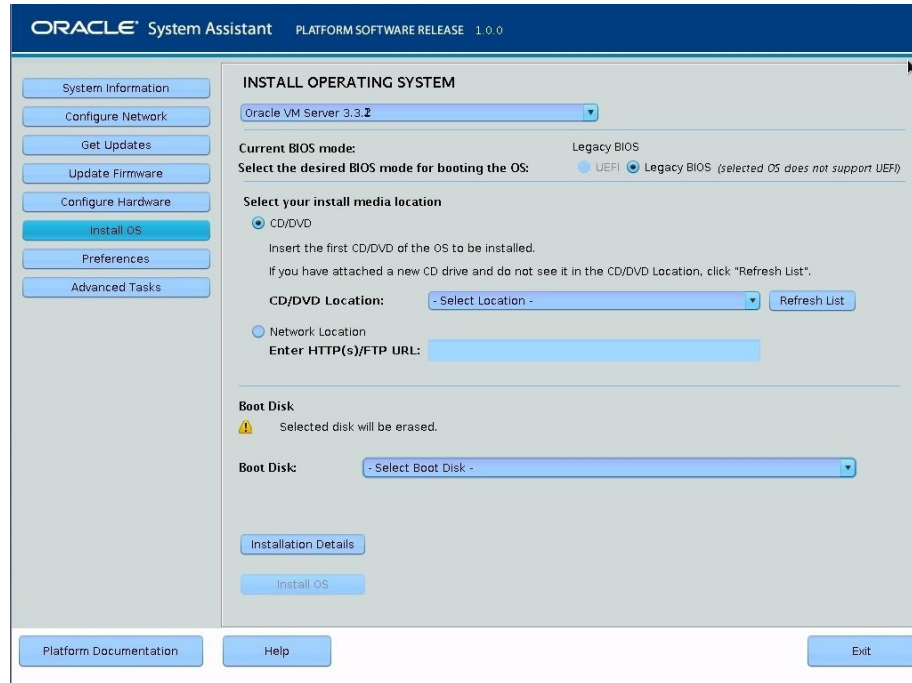
Note - Server web access is required to access remote updates for Oracle System Assistant.

5. Click the Update Firmware button to update the server firmware.

This action ensures that the server has the latest firmware and BIOS before you begin the operating system installation.

6. Click the Install OS button to install Oracle VM Server.

The Install Operating System screen appears.



7. **From the Supported OS drop-down list, select Oracle VM Server.**
8. **In the Select Your Install Media Location section of the screen, select the location of the installation media.**

This is the location of the installation CD/DVD or the ISO installation image.

Note - Oracle System Assistant does not support Preboot eXecution Environment (PXE) installations. To perform a PXE installation of Oracle VM Server, refer to the Oracle VM Server documentation at http://docs.oracle.com/cd/E50245_01/index.html.

9. **In the Boot Disk portion of the screen, select the installation target.**
10. **Click Installation Details.**
The Installation Details dialog box appears.
11. **In the Installation Details dialog, deselect any items that you do not want to install.**

Note - The Oracle VM and Drivers options are mandatory and cannot be deselected.

12. **At the bottom of the Install Operating System screen, click the Install OS button.**
13. **To confirm your selection of boot device, click Yes.**
To change boot devices, click No, and select another device.
14. **Follow the prompts until the installation is finished.**
The server boots.

Installing Oracle VM Server on a Single System Manually

This section provides information about installing Oracle VM Server 3.3 for x86 (64-bit) software.

- [“Install Oracle VM Server Manually Using Local or Remote Media” on page 29](#)

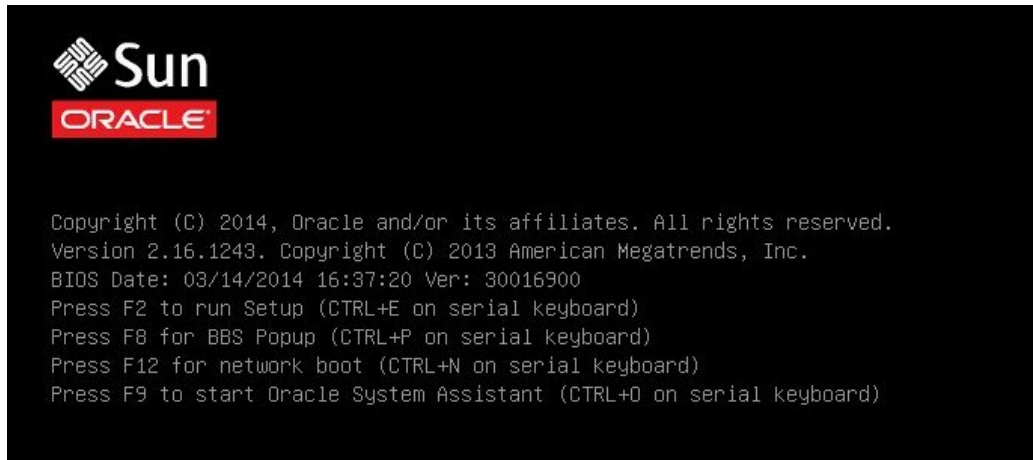
▼ Install Oracle VM Server Manually Using Local or Remote Media

Before you begin, review the installation prerequisites in [“Before You Begin” on page 23](#).

1. **Access the host console.**
For instructions, see [“Accessing the Host Console” on page 18](#).
2. **Ensure that the installation media is available to boot.**
For instructions, see [“Preparing the Boot Media” on page 19](#).
3. **Power on or reset the server.**
For example, to reset the server, do one of the following:
 - **From the local server**, press the Power button on the front panel of the server (for approximately 1 second) to power off the server, and then press the Power button again to power on the server.
 - **From the Oracle ILOM web interface**, select Host Management → Power Control, and then select Reset from the Select Action list box.

- **From the Oracle ILOM command-line interface, type `reset /System`.**

The server begins the boot process.

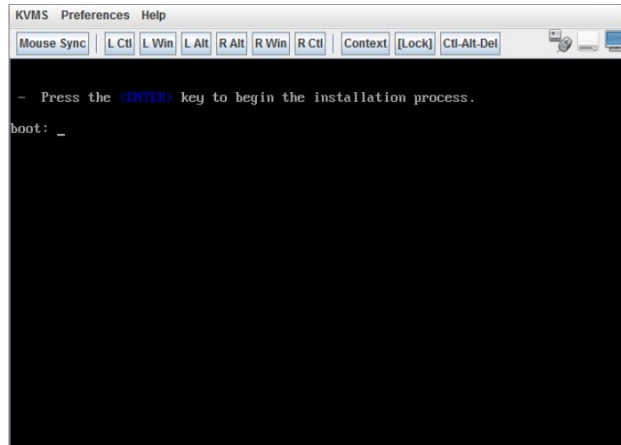


Note - The next events occur very quickly; therefore, focused attention is needed for the following steps. Watch carefully for these messages as they appear on the screen for a brief time. You might want to enlarge the size of your screen to eliminate scroll bars.

4. **In the BIOS screen, press the F8 key to specify a temporary boot device for the Oracle VM Server installation.**
5. **In the Please Select Boot Device menu, select either the external or virtual CD/DVD device as the boot device, and then press Enter.**

The device strings listed in the Boot Device menu are in the following format: *device type, slot indicator, and product ID string*.

After a few seconds, the splash screen for Oracle VM Server appears.



6. Press Enter to begin the installation.

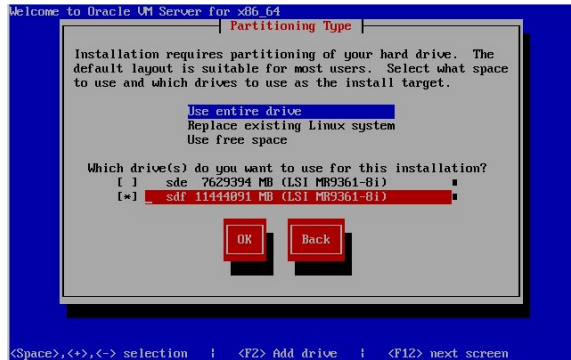
If you do not press a key, after one minute, the installer automatically starts. The installer is only available in text mode.

7. Refer to the *Oracle VM Installation and Upgrade Guide for Release 3.3* at http://docs.oracle.com/cd/E50245_01/index.html.

The *Oracle VM Installation and Upgrade Guide for Release 3.3* provides step-by-step instructions for installing Oracle VM.

8. Follow the on-screen prompts to install Oracle VM Server and Oracle VM Server Agent.

9. As you progress through the on-screen prompts, the Partitioning Type screen appears.



Note - Although the next step is described in the *Oracle VM Installation and Upgrade Guide for Release 3.3* at: http://docs.oracle.com/cd/E50245_01/index.html, it is included here because you must exercise caution when you select the drive onto which to install Oracle VM Server.

10. In the Partitioning Type screen, do the following:

- a. Select one of following partition layouts:
 - Use entire drive
 - Replace existing Linux system
 - Use free space

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



Caution - In the Partitioning Type screen, the Oracle SSM drive is the Oracle System Assistant USB flash drive. You might have to scroll to the bottom of the screen to see this drive. You should *never* select the Oracle SSM drive as the software installation drive. Installing Oracle VM Server to the Oracle SSM drive will overwrite the Oracle System Assistant software and Oracle System Assistant will have to be restored. For instructions for restoring Oracle System Assistant, see the *Oracle X5 Series Servers Administration Guide* at <http://www.oracle.com/goto/x86AdminDiag/docs>.

- c. Select OK to continue the installation.

11. To complete the installation, refer to the Oracle VM installation documentation and follow the instructions.

Refer to the *Oracle VM Installation and Upgrade Guide for Release 3.3* at http://docs.oracle.com/cd/E50245_01/index.html.

Note - The Oracle VM installation will require two passwords: one for the root Oracle VM Server account and one for the Oracle VM Agent.

12. After completing the installation of Oracle VM Server and Oracle VM Agent, do one of the following:

- If you *do not* have an Oracle VM Manager configured to manage the Oracle VM Server, you will need to install it before proceeding to “[Post Installation Tasks for Oracle VM Server](#)” on page 33.

For instructions for installing Oracle VM Manager, refer to the *Oracle VM Installation and Upgrade Guide for Release 3.3* at http://docs.oracle.com/cd/E50245_01/index.html.

- If you already have an Oracle VM Manager configured to manage the Oracle VM Server, proceed to “[Post Installation Tasks for Oracle VM Server](#)” on page 33.

Post Installation Tasks for Oracle VM Server

After completing Oracle VM Server software installation, review the following post installation tasks and, if necessary, perform the tasks that are applicable to your system.

- “[Update Oracle VM Server Software](#)” on page 33
- “[Manage Oracle VM Server Resources](#)” on page 33

Update Oracle VM Server Software

The Oracle VM Server installation media might not contain the most up-to-date versions of the software. If necessary, update the Oracle VM Server software with the latest updates. For download instructions, go to this web site:

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

Manage Oracle VM Server Resources

To learn how to configure, access, and manage Oracle VM Server resources, refer to the Oracle VM Release 3.3 Documentation Library at:

http://docs.oracle.com/cd/E50245_01/index.html

Configuring Network Interfaces

This section contains information about the network connectors on the server:

- [“NIC Connectors” on page 35](#)

NIC Connectors

The network interface card connectors are labeled physically on the server as follows.

TABLE 1 NIC Connector Label

NIC Connector Label	Interface Type
NET0	First interface (eth 0)
NET1	Second interface (eth 1)
NET2	Third interface (eth 2)
NET3	Fourth interface (eth 3)

Note - Ethernet ports NET 2 and NET 3 are nonfunctional in single-processor systems.

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