

Sun Server X4-4 Installation Guide for Oracle® Solaris Operating System

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Using This Documentation

This section describes how to get the latest firmware and software for the system, documentation and feedback, and a document change history.

- “Sun Server X4-4 Model Naming Convention” on page 7
- “Getting the Latest Firmware and Software” on page 7
- “Documentation and Feedback” on page 8
- “About This Documentation” on page 8
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Sun Server X4-4 Model Naming Convention

The Sun Server X4-4 name identifies the following:

- X identifies an x86 product.
- The first number, 4, identifies the generation of the server.
- The second number, 4, identifies the number of processor sockets in the server.

Getting the Latest Firmware and Software

Firmware, drivers, and other hardware-related software for each Oracle x86 server are updated periodically.

You can obtain the latest version in one of following ways:

- Oracle System Assistant – This is a factory-installed option for Sun Oracle x86 servers. It has all the tools and drivers you need and resides on an internal USB flash stick.
- My Oracle Support – This is the Oracle support web site located at: <https://support.oracle.com>.

Documentation and Feedback

Documentation	Link
All Oracle products	http://www.oracle.com/technology/documentation/index.html
Sun Server X4-4	http://www.oracle.com/goto/X4-4/docs
Oracle Integrated Lights Out Manager (ILOM). Refer to the documentation for your supported version of Oracle ILOM listed in the <i>Product Notes</i> .	http://www.oracle.com/goto/ILOM/docs
Oracle Hardware Management Pack. Refer to the documentation for your supported version of Oracle Hardware Management Pack listed in the <i>Product Notes</i> .	http://www.oracle.com/goto/ohmp/docs

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

About This Documentation

This documentation set is available in both PDF and HTML. The information is presented in topic-based format (similar to online help) and therefore does not include chapters, appendixes, or section numbering.

Support and Training

These web sites provide additional resources:

- Support: <https://support.oracle.com>
- Training: <http://education.oracle.com>

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Change History

The following lists the release history of this documentation set:

- April 2014. Initial publication.
- May 2014. Updated *Product Notes* for SW 1.0.1. Updated *Product Notes*, *Installation Guide* and *Service Manual* information for the 8 GB DIMM which will no longer be orderable as of June 2014.
- October 2014. Updated *Product Notes* for SW 1.1.0. Updated *Installation Guide* and *Sun Server X4-4 Installation Guide for Linux Operating System* information to add support for the Oracle Linux Fault Management Architecture software available with Oracle Hardware Management Pack 2.3. Minor editorial updates to *Sun Server X4-4 Installation Guide for Windows Operating System*.
- January 2015. Updated *Product Notes* for SW 1.1.1.
- August 2015. Updated *Product Notes* for SW 1.2. Updated the *Service Manual* information for the fan module replacement. Updated the *Installation Guide* for minor technical edits.
- September 2015. Updated *Product Notes* for SW 1.2.1.
- October 2015. Updated *Product Notes* to add note about important updates. Removed information in all books about obtaining physical media for Oracle software.

About Oracle Solaris OS Installation

This section provides an overview of the installation process, supported OS versions, and installation options.

- [“Oracle Solaris Installation Task Table” on page 11](#)
- [“Supported OS Versions and Latest Information” on page 11](#)
- [“OS Installation Options” on page 12](#)

Oracle Solaris Installation Task Table

Use the following task table to install a supported version of Oracle Solaris on your Sun Server X4-4.

Step	Task	Link
1	Review the list of supported Solaris OS versions and learn how to obtain the latest and most up-to-date information about the server software and hardware.	“Supported OS Versions and Latest Information” on page 11
2	Review the options for single server or multiple server OS installations.	“OS Installation Options” on page 12
3	Get an overview of Oracle System Assistant and how you can use it to manage your server.	“Oracle System Assistant” on page 14
4	Prepare for the OS installation by performing necessary procedures.	“Preparing to Install the OS” on page 17

Supported OS Versions and Latest Information

Use this section to learn about the supported versions of the Oracle Solaris operating system (OS) and how to get the latest server-related information:

- [“Supported Oracle Solaris Operating System Versions” on page 12](#)

Supported Oracle Solaris Operating System Versions

At the time of the release of this server, the Sun Server X4-4 supports the following Oracle Solaris OS versions:

Solaris OS Version	Edition
Oracle Solaris 11	Release 11.1 (SRU12)

For a specific and up-to-date list of supported operating systems, refer to:

<https://wikis.oracle.com/display/SystemsComm/Sun+Server+X4-4#tab:Operating-Systems>

Note - The most up-to-date information about your server is maintained in the [Sun Server X4-4 Product Notes](#). The *Product Notes* document contains detailed information about the available firmware updates and any hardware or software issues for the server. This document and other server-related documents are available online in the server's documentation library at: <http://www.oracle.com/goto/X4-4/docs>.

OS Installation Options

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

Option	Description
Multiple servers	For information on using Oracle Enterprise Manager Ops Center to install an OS on multiple servers, go to: http://www.oracle.com/technetwork/oem/ops-center/index.html
Single server	Install an OS to a single server using one of the following methods: <ul style="list-style-type: none">■ Local installation: OS installation is performed locally at the server. Additional hardware KVMS is required.■ Remote installation: OS installation is performed from a remote location. Uses the Oracle ILOM Remote Console application to either access Oracle System Assistant

Option	Description
	to perform an assisted installation, or to perform a manual OS installation using the Solaris media.
	Note - Oracle System Assistant is the easiest method for local or remote single-server OS installations.

Related Information:

- [“Single-Server Installation Methods” on page 13](#)

Single-Server Installation Methods

Select a method for providing the Oracle Solaris installation media. Use the following information to determine the local or remote OS installation that best serves your needs.

Media Delivery Method	Uses	Additional Requirements	More Information
Local assisted OS installation	Oracle System Assistant.	Monitor, USB keyboard and mouse, USB OSA device, and OS distribution media.	“Assisted OS Installation” on page 13.
Remote assisted OS installation	Oracle System Assistant.	Oracle ILOM Remote Console application, USB OSA device, and OS distribution media.	“Assisted OS Installation” on page 13.
Local using a CD/DVD drive	Physical CD/DVD drive connected to the server.	Monitor, USB keyboard and mouse, USB CD/DVD drive, and OS distribution media.	“Manual OS Installation” on page 14.
Remote using a CD/DVD drive or CD/DVD ISO image	CD/DVD drive on remote system running Oracle ILOM Remote Console.	Remote system with browser, attached physical CD/DVD drive, OS distribution media, and network access to the server management port.	“Manual OS Installation” on page 14.
Network PXE install	PXE image available on the network.	Network installation.	Refer to Solaris documentation. http://www.oracle.com/technetwork/documentation/solaris-11-192991.html

Assisted OS Installation

This is the easiest method for installing a supported OS on the server. This method involves using the Oracle System Assistant application. You deliver the Solaris OS installation media on

either a local or remote CD/DVD drive, USB device, or CD/DVD image, and Oracle System Assistant guides the installation process and installs the necessary drivers when necessary.

Related Information:

[“Oracle System Assistant” on page 14](#)

Manual OS Installation

With this method, you deliver the Oracle Solaris distribution media on either a local or remote CD/DVD drive, USB device, or CD/DVD image. Most drivers for the server are included with the media, however newer drivers might be available from the My Oracle Support site.

Related Information:

[“Preparing to Install the OS” on page 17](#)

Oracle System Assistant

This section contains the following topics:

- [“Oracle System Assistant Overview” on page 14](#)
- [“Oracle System Assistant OS Installation Task” on page 15](#)
- [“Obtaining Oracle System Assistant” on page 15](#)

Oracle System Assistant Overview

Oracle System Assistant is a single-server system setup and maintenance tool for Oracle x86 servers. The USB device based tool integrates Oracle's Single System Management products and a selection of related software to provide a suite of tools that allow for the quick and convenient startup and maintenance of the server. The components of Oracle System Assistant include:

- Hardware Management Pack
- User interface access to startup and maintenance provisioning tasks (including Install OS task)
- Oracle Linux command-line environment
- Operating system drivers and tools

- Server-specific firmware
- Server-related documentation

Oracle System Assistant is installed in the server and is factory-configured with a server-specific version of tools and drivers that is maintained through the use of online updates.

Related Information:

[Oracle X4 Series Servers Administration Guide \(http://www.oracle.com/goto/x86AdminDiag/docs\)](http://www.oracle.com/goto/x86AdminDiag/docs).

Oracle System Assistant OS Installation Task

The Oracle System Assistant Install OS task assists in the installation of a supported OS. You supply the OS installation media, and Oracle System Assistant guides you through the installation process. The Install OS task is not available for all server-supported operating systems. However, once a server-supported OS is installed, you can use Oracle System Assistant to update the OS drivers as well as all the firmware components (BIOS, Oracle ILOM, HBAs, and expanders).

You can access Oracle System Assistant locally or remotely. If you just completed the installation of the server, then using Oracle System Assistant locally (while physically present at the server) can be a fast and efficient method of starting up the server. Once the server is operational, you can conveniently access Oracle System Assistant remotely while still retaining full-featured functionality.

Obtaining Oracle System Assistant

Oracle System Assistant might be already installed in the server. For more information about how to determine if the server has Oracle System Assistant or how to perform updates and recovery procedures, refer to the [Oracle X4 Series Servers Administration Guide \(http://www.oracle.com/goto/x86AdminDiag/docs\)](http://www.oracle.com/goto/x86AdminDiag/docs).

Preparing to Install the OS

This section describes the steps for preparing to install an OS. Use the following task table as a guide.

Step	Task	Link
1	Review the OS installation task table.	“About Oracle Solaris OS Installation” on page 11
2	Get the installation documentation.	“Obtaining Oracle Solaris Documentation” on page 17
3	Setup for the installation based on your selected installation method.	“Setting Up the Installation Session” on page 17
4	Prepare the BIOS by loading the optimal default values, and selecting a BIOS mode.	“Setting Up BIOS” on page 24
5	Install and update the OS.	“Installing the Oracle Solaris OS” on page 27

Obtaining Oracle Solaris Documentation

Documentation for supported versions of the Oracle Solaris operating systems are available at:

- <http://www.oracle.com/technetwork/documentation/solaris-11-192991.html>

Note - Oracle Solaris documentation is also available on the Documentation DVD included with the Oracle Solaris OS software.

Setting Up the Installation Session

This section describes how to set up a local or remote installation session.

A local OS installation is performed at the server. A remote OS installation is performed using the Oracle ILOM Remote Console Plus application, and a redirected CD/DVD drive, CD ISO image, or USB image.

- [“Set Up for Local Installation” on page 18](#)
- [“Set Up for Remote Installation” on page 18](#)

▼ Set Up for Local Installation

Use this procedure to set up for a local Oracle System Assistant assisted installation or a local manual (unassisted) installation. A local OS installation is performed at the server.

The preferred procedure for a local installation method is to use the Oracle System Assistant's Install OS task.

- Before You Begin**
- Perform the server installation as described in the [Sun Server X4-4 Installation Guide](#)
 - Get the following items:
 - Video monitor with 15-pin (DB-15) connector capabilities
 - USB keyboard and mouse
 - OS media on CD/DVD drive or USB OSA device
 - To ensure that the server has the latest updates, server web access is recommended.
- 1. Ensure the server is in standby power state.**
 - 2. Connect the video monitor to the video connector on the front of the server.**
 - 3. Connect the keyboard and mouse to one of the USB connectors on the front of the server.**
 - 4. Connect the CD/DVD drive to the other USB connector on the front of the server (only if your server did not come with a DVD drive built-in).**

Next Steps [“Setting Up BIOS” on page 24](#)

▼ Set Up for Remote Installation

Use this procedure to set up for a remote Oracle System Assistant assisted installation or a remote manual (unassisted) installation. A remote OS installation is performed using the Oracle ILOM Remote Console Plus application and an OS image on a redirected CD/DVD drive, CD ISO image, or USB device.

The preferred procedure for a remote installation is to use Oracle System Assistant's assisted Install OS task.

Note - Using the CD/DVD-ROM or CD/DVD-ROM ISO image option to install the OS *significantly* increases the time necessary to perform the installation as the content of the CD/DVD-ROM is accessed over the network. The installation duration depends on the network connectivity and traffic. This installation method also has a greater risk of issues due to transient network errors.

Before You Begin The following requirements must be met:

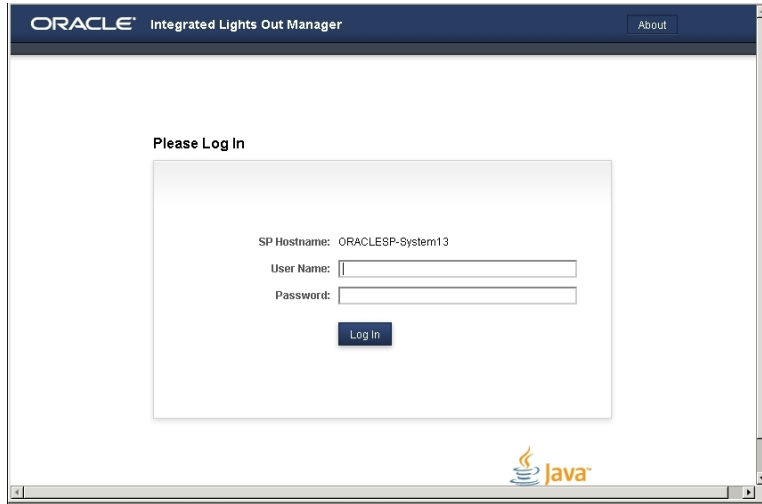
- Perform the server installation as described in the [Sun Server X4-4 Installation Guide](#)
- Set up the server service processor (SP). Follow the instructions in the Oracle ILOM documentation for your server.
- The Oracle ILOM Remote Console Plus system can be any client with a browser connected to a network that has access to the Sun Server X4-4 Ethernet management port.
- Ensure that you have met the Java, browser, and configuration requirements to run Oracle ILOM Remote Console Plus on a remote client as described in the *Oracle ILOM Administrator's Guide for Configuration and Maintenance* for your server's version of Oracle ILOM at: <http://www.oracle.com/goto/ILOM/docs>.

Note - Some of the screen images shown in this procedure might differ from the screens you see.

1. **To access Oracle ILOM, type the IP address of the service processor into a browser on the Oracle ILOM Remote Console Plus system.**

Answer any security prompts, as needed.

The Oracle ILOM login screen appears.



2. Type the user name and password and click Log In.

To use the Oracle ILOM Remote Console Plus feature, you need to log in using an account that has Console role privileges.

The Oracle ILOM System Summary screen appears.

The screenshot displays the Oracle ILOM System Summary screen. The title bar reads "ORACLE Integrated Lights Out Manager vx86_3.2.2.0". The navigation pane on the left includes "Summary", "Processors", "Memory", "Power", "Cooling", "Storage", "Networking", "PCI Devices", "Firmware", "Open Problems (0)", "System Log", "Remote Control", "Host Management", "System Management", "Power Management", and "ILOM Administration".

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	System13
QPart ID	Q10542
Part Number	X4-4-PPN
Serial Number	X4-4-PSN
Component Model	X4-4
Component Part Number	X4-4-PPN
Component Serial Number	System13
System Identifier	-
System Firmware Version	vx86_3.2.2.0
Primary Operating System	Not Available
Host Primary MAC Address	00:10:e0:2e:45:76
ILOM Address	192.168.254.195
ILOM MAC Address	00:10:E0:2E:45:7A
- Status:** Overall Status: OK, Total Problem Count: 0. A table lists subsystems and their status.

Subsystem	Status	Details	Inventory
Processors	OK	Processor Architecture: x86 64-bit Processor Summary: Four Intel Xeon Processor E7 V2 Series	Processors: 4 / 4 (Installed / Maximum)
Memory	OK	Installed RAM Size: 256 GB	DIMMs: 32 / 96 (Installed / Maximum)
Power	OK	Permitted Power Consumption: 1607 watts Actual Power Consumption: 403 watts	PSUs: 2 / 2 (Installed / Maximum)
Cooling	OK	Inlet Air Temperature: 23 °C Exhaust Air Temperature: 25 °C	Chassis Fans: 6 / 6 (Installed / Maximum) PSU Fans: Not Supported
Storage	Not Available	Installed Disk Size: Not Available Disk Controllers: Not Available	Internal Disks: 6 / 6 (Installed / Maximum)
Networking	OK		Ethernet NICs: 4 (Installed)
- Actions:** Power State: ON (Turn Off), Locator Indicator: OFF (Turn On), Oracle System Assistant: Not Available (Launch), System Firmware Update: Update, Remote Console: Launch.

3. Click the Remote Console Launch button.

Answer any prompts that appear.

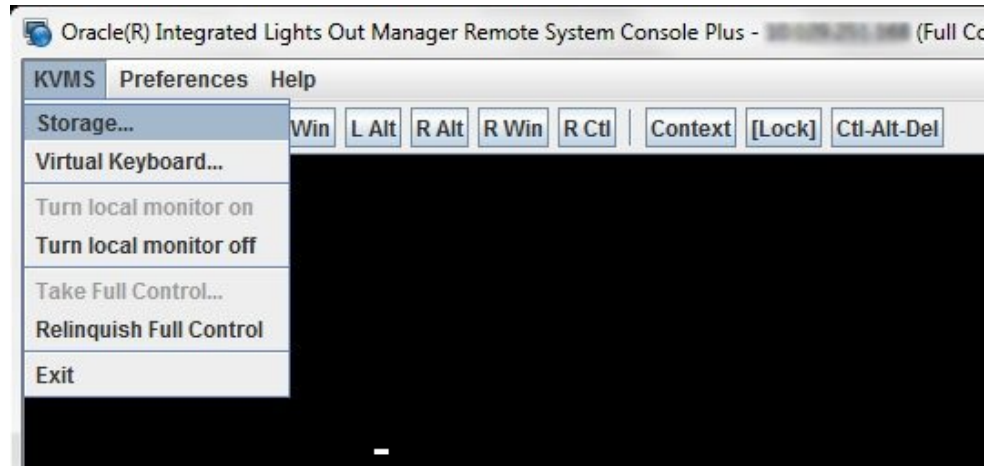
The Oracle ILOM Remote Console Plus screen appears.

4. To redirect storage media, perform the following actions:

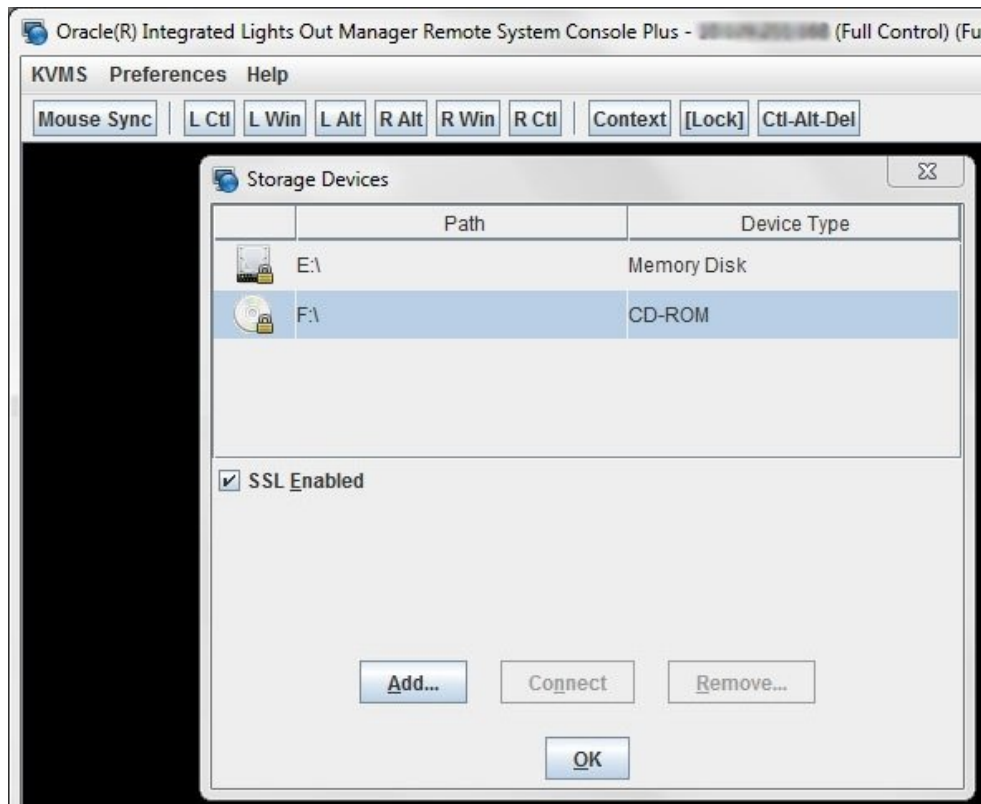
- a. **Verify you have full-control privileges for the redirection session. If not, click Take Full-Control in the KVMS menu.**

Note - If you are the primary user with full-control privileges, the option for Take Full-Control is disabled in the KVMS menu.

- b. Click Storage in the KVM menu.



The Storage Device dialog box appears.



Note - The Storage Device dialog box automatically displays storage drive devices (such as CD, DVD, floppy, and USB devices) detected on the Oracle ILOM Remote Console Plus client. If bootable media is not detected in the drive, a lock icon appears on the drive to indicate: 1) the drive is present, and 2) bootable media was not found in the drive.

- c. To add a storage image (such as a CD/DVD image) to the Storage Device dialog box, click Add.
- d. To redirect storage media from the Storage Device dialog box, select the storage media and click Connect.

Note - After clicking Connect in the Storage Device dialog, the label on the Connect button changes to Disconnect.

Next Steps [“Setting Up BIOS” on page 24](#)

Setting Up BIOS

Before you install the operating system, ensure that BIOS settings are configured to support the type of installation you plan to perform. The following topics provide specific instructions on how to configure the BIOS to support the installation:

- [“Load BIOS Optimal Default Settings” on page 24](#)
- [“Set the BIOS Boot Mode” on page 25](#)

▼ Load BIOS Optimal Default Settings



Caution - This procedure resets the BIOS settings to the default values and overwrites any previously customized settings. To retain customized settings, review each menu and make note of the customized values before loading the default values.

The BIOS Setup Utility contains an option to load the optimal BIOS settings for the server. Perform this procedure on a newly installed server to ensure that the BIOS is set to the optimal default values.

- Before You Begin**
- The server is equipped with a properly installed storage drive.
 - A console connection is established to the server. For details, see [“Setting Up the Installation Session” on page 17](#).
- 1. Power on the server.**
POST message appears on the video (KVMS or RKVMS) console.
 - 2. Watch the messages, and, when prompted, press F2 to access the BIOS Setup Utility.**
The BIOS Setup Utility main screen appears.
 - 3. To ensure that the factory defaults are set, press F9.**

4. **To save the changes, and exit the BIOS Setup Utility, press F10.**

Next Steps [“Set the BIOS Boot Mode” on page 25](#)

▼ Set the BIOS Boot Mode

The Unified Extensible Firmware Interface (UEFI) BIOS firmware supports both legacy BIOS boot mode and UEFI BIOS boot mode; the default setting is Legacy BIOS boot mode. Oracle Solaris 11.1 and later operating systems support UEFI BIOS boot mode and legacy BIOS boot mode.

Follow these instructions for setting the BIOS boot mode before installing the OS:

1. **Power on the server.**
POST messages appear on the console.
2. **Watch the messages, and, when the prompt appears, press F2 to access the BIOS Setup Utility.**
The BIOS Setup Utility main screen appears.
3. **In the BIOS Setup Utility, use the left or right arrow keys to navigate to the Boot menu.**
The Boot Menu screen appears.
4. **Use the down arrow key to select the UEFI/BIOS Boot Mode field.**
5. **Press Enter and use the up or down arrow keys to select the BIOS boot option.**
6. **To save the changes, and exit the BIOS Setup Utility, press F10.**

Next Steps [“Installing the Oracle Solaris OS” on page 27](#)

Installing the Oracle Solaris OS

This section describes how to install the Oracle Solaris operating system.

Step	Task	Link
1	Start the installation.	“Installing Supported Versions of the Oracle Solaris OS” on page 27
2	Install the Oracle Solaris OS system tools and access the drivers (if required) that are included with Oracle System Assistant software and the downloaded software package.	“Installing Server System Tools (Optional)” on page 34

Installing Supported Versions of the Oracle Solaris OS

This section contains the following procedures:

- [“Install the Oracle Solaris OS \(Oracle System Assistant\)” on page 27](#)
- [“Install the Oracle Solaris OS \(Manually\)” on page 32](#)

▼ Install the Oracle Solaris OS (Oracle System Assistant)

The Oracle System Assistant Install OS task provides assisted OS installation of a supported versions of the Oracle Solaris OS.

- Before You Begin**
- Prepare the server storage drives. For more information, refer to the [Sun Server X4-4 Installation Guide](#).
 - Perform the steps in [“Preparing to Install the OS” on page 17](#).

- During the OS installation and configuration process, you might need to provide logical and physical network names. For more information, see [“Install the Oracle Solaris OS \(Manually\)” on page 32](#).
- **For local installation**, have the installation media available to insert into the attached physical CD/DVD-ROM drive when prompted.
- **For remote installation**, insert the installation media into the Remote Console system’s CD/DVD-ROM drive. Make sure you have selected CD-ROM from the Remote Console Device menu.

If you are using an ISO image, ensure that it is accessible from the Remote Console system. Select CD-ROM Image from the Remote Console Device menu.

- Server web access is required to update Oracle System Assistant.
For more information about how to setup Oracle System Assistant network access, refer to the [Oracle X4 Series Servers Administration Guide \(http://www.oracle.com/goto/x86AdminDiag/docs\)](http://www.oracle.com/goto/x86AdminDiag/docs).

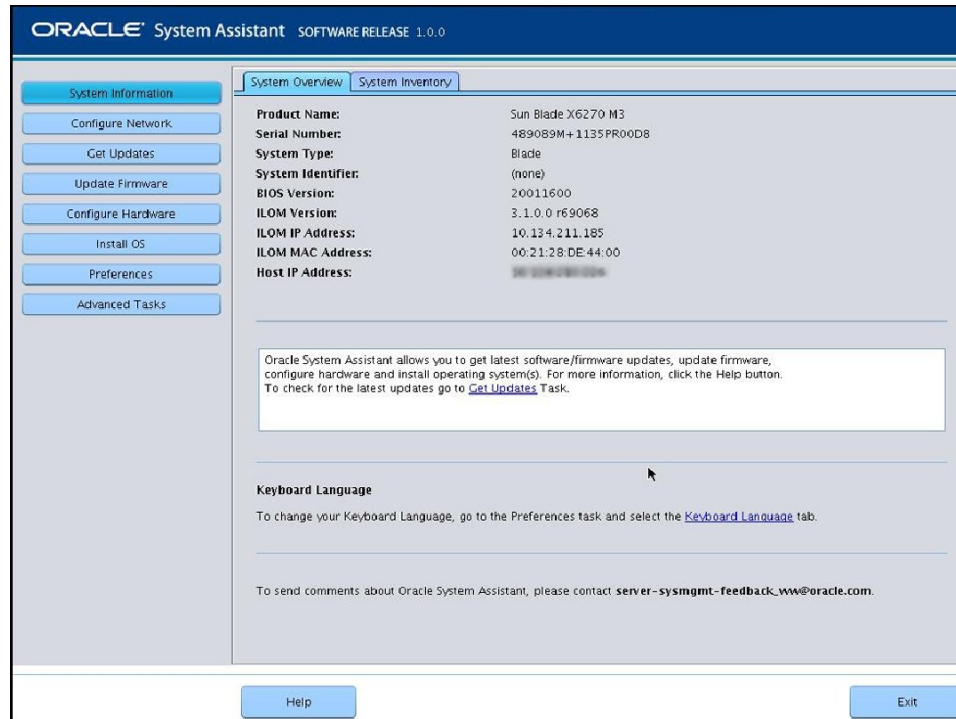
1. Ensure that the server is in standby power.

2. Boot the server.

Watch the video monitor or Remote Console screen for the prompt to press the F9 key to access Oracle System Assistant.

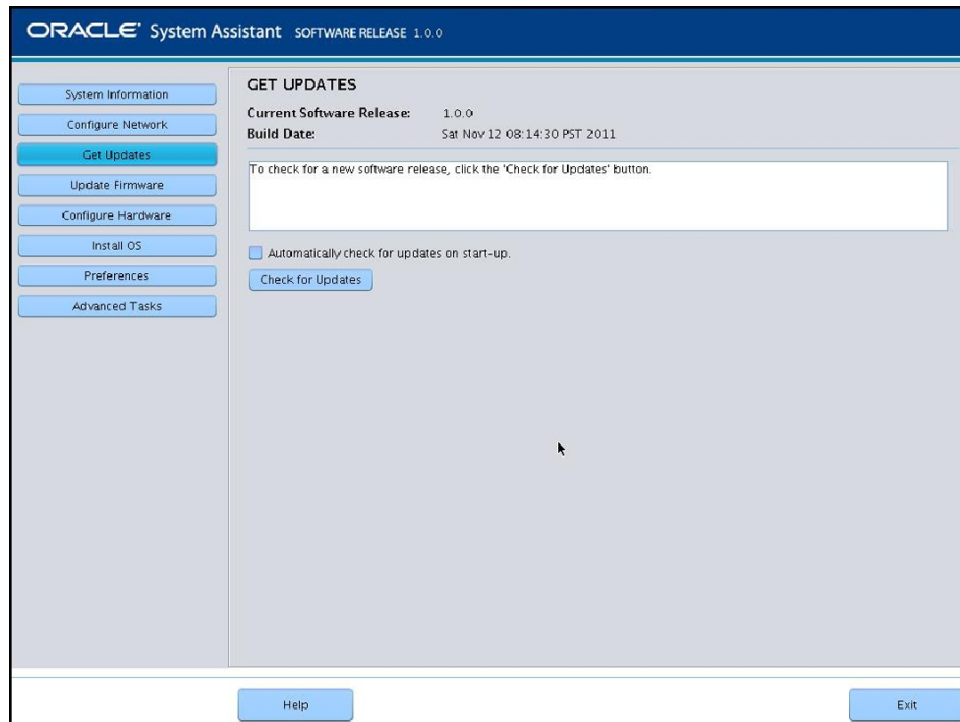
3. When the prompt appears, press the F9 key.

The Oracle System Assistant main screen appears.



4. To update the Oracle System Assistant application, click the Get Updates button.

This action ensures that the application has the latest firmware and drivers before you begin the OS installation.

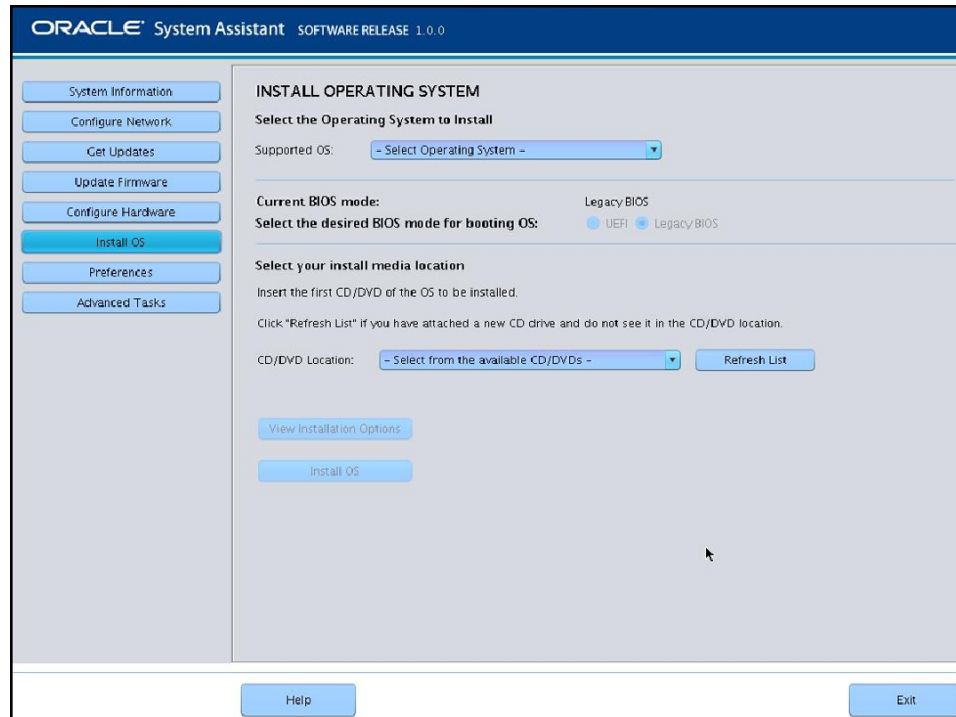


- 5. To update the server firmware, click the Update Firmware button.**

This action ensures that the server has the latest firmware before you begin the OS installation.

- 6. To install the OS, click the Install OS button.**

The Install OS screen appears.



7. **From the Select Operating System drop-down list, select the OS.**
8. **Select the BIOS boot mode. See “Set the BIOS Boot Mode” on page 25**
For more information, refer to the [Oracle X4 Series Servers Administration Guide \(http://www.oracle.com/goto/x86AdminDiag/docs\)](http://www.oracle.com/goto/x86AdminDiag/docs).
9. **In the Select your install media location section, indicate the location of the installation media.**
This is the location of the OS distribution media. If you attached a CD/DVD drive, you might need to click the Refresh button to see it in the drop-down list.
10. **To select a device, click View Installation Options.**
This is the device on which you install the OS.



Caution - Loss of data. The OS installation erases the contents of the disk. All data on the selected disk is erased.

11. **To begin the OS installation, click Install OS.**
12. **Follow the prompts until the installation is finished.**
The server boots.

Next Steps [“Installing Server System Tools \(Optional\)” on page 34](#)

▼ Install the Oracle Solaris OS (Manually)

Use this procedure to install the OS locally or remotely using CD/DVD/USB installation media or ISO image.

- Before You Begin**
- Review Oracle Solaris OS installation documentation:
 - Oracle Solaris 11.1: <http://www.oracle.com/technetwork/documentation/solaris-11-192991.html>
 - You should have already selected your BIOS boot mode (Legacy or UEFI) as described in [“Preparing to Install the OS” on page 17](#).
 - You should have already done the preparation for a local or remote installation as described in [“Preparing to Install the OS” on page 17](#). Then perform one of the following:
 - **Local installation:** Have the OS distribution media available to insert into the attached physical CD/DVD-ROM drive or USB port.
 - **Remote installation:** If your OS distribution media is a CD/DVD or USB image, insert it into the remote client's DVD-ROM drive or USB port and mount it through the Oracle ILOM Remote Console KVMS > Storage menu.
- If you are using an ISO image of the OS distribution media, ensure that the image is mounted through the Oracle ILOM Remote Console KVMS > Storage menu.

1. **insert the Solaris distribution media into the server's CD/DVD drive or USB port.**
2. **Power on or reboot the server.**

If you are using the remote installation method, you can power on or reboot the server through Oracle ILOM.

BIOS messages display.



3. **Watch the screen until you see a list of selections and then press F8 to select "BBS Popup."**

Note - BIOS messages, including the BIOS menu selection list, can go by quickly. If you miss the messages, power cycle the server and hold down the F8 key during boot until the BBS Popup menu appears.

After a delay, a "select boot device" menu appears with a list of possible boot devices.

4. **Select a boot device from the list, as follows:**
 - For a local installation, select the Solaris distribution media from the list of devices and press Enter.
 - For a remote installation, select the client's remotely mounted virtual CD/DVD drive or USB image from the list of devices and press Enter.

Control passes to the OS installation program on the media.

Note - If a message about mounting an OS instance appears, select **q**. You should not mount any OS instance.

5. **Use the text- or GUI-based installation program to install the OS.**

For more information on installation, refer to the Oracle Solaris 11.1 documentation: <http://www.oracle.com/technetwork/documentation/solaris-11-192991.html>

▼ Installing Server System Tools (Optional)

Server system tools, which include LSI MegaRAID Storage Manager (LSI MSM), MegaCLI, and Oracle Hardware Management Pack are available with the Oracle System Assistant software and the downloaded Solaris OS software package. Use this procedure to access and install the server system tools.

Note - Additional software for Solaris 11.1 can be installed with the Oracle Solaris Image Packaging System (IPS). For more more information, refer to: http://docs.oracle.com/cd/E26502_01/html/E28984/index.html

1. **Do one of the following:**

■ **If your system has Oracle System Assistant:**

a. **From the OS, open a file browser, and navigate to the Oracle System Assistant USB device.**

The USB device is named: ORACLE_SSM

For USB mounting instructions, refer to the [Oracle X4 Series Servers Administration Guide](http://www.oracle.com/goto/x86AdminDiag/docs) (<http://www.oracle.com/goto/x86AdminDiag/docs>).

b. **Navigate to the appropriate Solaris OS Tools folder:**

Solaris/*OS_name*/Tools

where *OS_name* is the installed Solaris OS.

■ **If your system does *not* have Oracle System Assistant:**

a. **Download the latest server system tools and drivers package from the My Oracle Support site.**

For more information, refer to “[Getting Server Firmware and Software](#)” in *Sun Server X4-4 Installation Guide* .

b. **Unzip the downloaded tools and drivers package to the server.**

c. **Within the unzipped file system, navigate to the Solaris OS Tools folder:**

`Solaris/OS_name/Tools`

where `OS_name` is the installed Solaris OS.

2. **The following table lists the procedures for installing the tools:**

Tool	Instructions
LSI MSM	<ol style="list-style-type: none"> 1. Navigate to the MSM/disk directory and run the <code>install.sh</code> file. This starts the installation script. 2. Follow the progress of the script until the installation is finished. For more information, refer to the LSI MSM installation instructions at: http://www.lsi.com/sep/Pages/oracle/sg_x_sas6-r-rem-z.aspx <p>Note - The <code>readme.txt</code> file in <code>Tools/MSM</code> directory contains important installation information.</p>
MegaCLI	<p>Navigate to the MegaCLI directory and run the MegaCLI file.</p> <p>Note - The <code>readme.txt</code> file in <code>Tools/MSM</code> directory contains important installation information.</p>
Oracle Hardware Management Pack	<p>Refer to the <code>hmp-prerequisite-installation.txt</code> ReadMe file in the <code>hmp-tools/oracle-hmp-version/SOFTWARE</code> directory (where <code>version</code> is the version of Oracle Hardware Management Pack).</p> <p>For more information, refer to the Oracle Hardware Management Pack documentation at: http://www.oracle.com/goto/OHMP/docs</p>

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