

# **Sun Fire X2270 M2 Server Installation Guide for Oracle® Solaris Operating System**



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# Preface

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This preface describes related documentation, available documentation formats, and the process for submitting feedback to Oracle. It also includes a document change history.

- “Related Books” on page 5
- “About This Documentation (PDF and HTML)” on page 7
- “Documentation Comments” on page 7
- “Documents History” on page 7

## Related Books

The following is a list of documents related to Oracle's Sun Fire X2270 M2 server. These and additional support documents are available on the web at:

<http://docs.sun.com/app/docs/prod/sf.x2270m2#hic>

Document Group	Document	Description
Sun Fire X2270 M2 Server-Specific Documentation	Sun Fire X2270 M2 Server Product Documentation	Integrated HTML version of all starred (*) documents, including Search and Index.
	<i>Sun Fire X2270 M2 Server Getting Started Guide</i>	Pictorial setup quick reference.
	<i>Sun Fire X2270 M2 Server Installation Guide*</i>	How to install, rack, and configure the server up to initial power-on.
	<i>Sun Fire X2270 M2 Server Product Notes*</i>	Important late-breaking information about the server.
	<i>Sun Installation Assistant 2.3 through 2.4 User's Guide for x64 Servers*</i>	An Oracle tool used to perform an assisted installation of a supported Windows or Linux OS, upgrade firmware (regardless of OS), and other tasks.
	<i>Sun Fire X2270 M2 Server Installation Guide for Oracle Solaris Operating Systems*</i>	How to install the Oracle Solaris OS on your server.

Document Group	Document	Description
	<i>Sun Fire X2270 M2 Server Installation Guide for Oracle VM*</i>	How to install Oracle VM on your server.
	<i>Sun Fire X2270 M2 Server Installation Guide for Linux Operating Systems*</i>	How to install a supported Linux OS on your server.
	<i>Sun Fire X2270 M2 Server Installation Guide for Windows Operating Systems*</i>	How to install supported versions of Microsoft Windows on your server.
	<i>Sun Fire X2270 M2 Server Installation Guide for ESX Software*</i>	How to install supported versions of the ESX OS on your server.
	<i>Integrated Lights Out Manager Supplement for the Sun Fire X2270 M2 Server*</i>	Version-specific supplemental information for your server's Integrated Lights Out Manager.
	<i>Sun Fire X2270 M2 Server Diagnostics Guide*</i>	How to diagnose problems with your server.
	<i>Sun Fire X2270 M2 Server Service Manual*</i>	How to service and maintain your server.
	<i>Sun Fire X2270 M2 Server Safety and Compliance Guide</i>	Safety and compliance information about your server.
Oracle Integrated Controller Disk Management	<i>Sun x64 Server Disk Management Overview</i>	Information about managing your server storage.
x64 Servers Applications and Utilities Reference Documentation	<i>Sun x64 Server Utilities Reference Manual</i>	How to use the available utilities included with your server.
Integrated Lights Out Manager (ILOM) 3.0 Documentation	<i>Oracle Integrated Lights Out Manager (ILOM) 3.0 Feature Updates and Release Notes</i>	Information about new ILOM features.
	<i>Oracle Integrated Lights Out Manager (ILOM) 3.0 Getting Started Guide</i>	Overview of ILOM 3.0.
	<i>Oracle Integrated Lights Out Manager (ILOM) 3.0 Concepts Guide</i>	Conceptual information about ILOM 3.0.
	<i>Oracle Integrated Lights Out Manager (ILOM) 3.0 Web Interface Procedures Guide</i>	How to use ILOM through the web interface.
	<i>Oracle Integrated Lights Out Manager (ILOM) 3.0 CLI Procedures Guide</i>	How to use ILOM through commands.

Document Group	Document	Description
	<i>Oracle Integrated Lights Out Manager (ILOM) 3.0 SNMP and IPMI Procedures Guide</i>	How to use SNMP and IPMI commands.
	<i>Oracle Integrated Lights Out Manager (ILOM) 3.0 Management Protocols Reference Guide</i>	Information about management protocols.

## About This Documentation (PDF and HTML)

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

## Documentation Comments

We are interested in improving the product documentation and welcome your comments and suggestions. You can submit your comments by clicking the floating feedback link [+] at:

<http://docs.sun.com/app/docs/prod/sf.x2270m2#hic>

Please include the title and part number of your document with your feedback.

## Documents History

- May 2010, initial publication
- June 2010, collection refresh, revisions to –11



# Planning the Oracle Solaris Operating System Installation

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This topic identifies the information that you need to properly plan the installation of an operating system onto a Sun Fire X2270 M2 Server.

- “Task Map for the Solaris 10 Installation” on page 9
- “Preinstalled Solaris Image” on page 10
- “Solaris Installation Methods” on page 11
- “How to Install From the Local Console” on page 11
- “How to Install From a Remote Console” on page 11
- “How to Install From Local Boot Media” on page 12
- “How to Redirect Boot Media From a Remote Storage Device” on page 13
- “PXE Installation” on page 13
- “Installation Targets” on page 14
- “Verifying BIOS Settings for New Installations” on page 15
- “How to View or Edit BIOS Settings for New Installations” on page 15

## Task Map for the Solaris 10 Installation

Use the Task Map for the Solaris 10 Installation table to preview the installation process defined as a series of tasks. This table identifies and describes the required tasks, and provides pointers to the instructions for performing that task.

TABLE 1 Task Map for the Solaris 10 Installation

Step	Task	Description	Relevant Topic(s)
1	Review installation prerequisites.		This topic
2	Choose an installation method.	Evaluate and select an installation method that meets the needs of your infrastructure.	<a href="#">“Solaris Installation Methods” on page 11</a>
3	Ensure that the BIOS factory defaults are set.	Verify that the factory default settings in the BIOS are set prior to performing the operating system installation.	<a href="#">“Verifying BIOS Settings for New Installations” on page 15</a>

TABLE 1 Task Map for the Solaris 10 Installation (Continued)

Step	Task	Description	Relevant Topic(s)
4	Gather the Solaris 10 10/08 installation media.	The Solaris 10 OS is shipped with the CD and DVD media and documentation that you need to install the Solaris OS for both SPARC and x86 platforms.	You can download or order the media for Solaris 10 10/08 at:  <a href="http://wikis.sun.com/display/SystemsComm/Sun+Fire+X2270+M2+Server">http://wikis.sun.com/display/SystemsComm/Sun+Fire+X2270+M2+Server</a>
5	Perform the Solaris 10 10/08 OS installation.	The installation instructions in this section explain the initial steps for booting the installation media and launching the Solaris installation program.  For further information about installing Solaris 10 10/08, refer to the <i>Solaris 10 Installation Guide: Basic Installations</i> .	“Solaris Installation Methods” on page 11
6	Install driver(s) post installation, if necessary.	After performing the operating system installation, if applicable, install the required operating system device drivers for your system.	“Installing System Device Driver(s) to Support Additional Hardware” on page 27

## Preinstalled Solaris Image

The preinstalled Solaris 10 Operating System image, if ordered, is shipped preinstalled on the hard disk drive. If you need to install another operating system on this drive, you can choose to:

- Partition the local drive to remove the preinstalled OS image
- or*
- Partition the local drive to support a dual-boot operating system configuration

The Solaris operating system installation procedures described in this topic explain the appropriate point in the installation program where you can either partition the drive to remove the preinstalled OS image or to support a dual-boot operating system configuration.

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**Note** – To configure the preinstalled Solaris 10 OS image, refer to “Configuring the Preinstalled Oracle Solaris 10 Operating System” in *Sun Fire X2270 M2 Server Installation Guide*.

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# Solaris Installation Methods

To determine which installation method is best for your infrastructure, consider the options and requirements summarized in the following sections:

- “How to Install From the Local Console” on page 11
- “How to Install From a Remote Console” on page 11
- “How to Install From Local Boot Media” on page 12
- “How to Redirect Boot Media From a Remote Storage Device” on page 13

## ▼ How to Install From the Local Console

Install the OS and administer the server by attaching a local console directly to the service processor (SP).

### 1 Attach a local console to the server.

For additional details, refer to “How to Connect to the System Console Locally (Physical Console)” in *Sun Fire X2270 M2 Server Installation Guide*.

### 2 At the ILOM prompt, type your ILOM user name and password.

The ILOM command prompt appears.

### 3 Establish a connection to the host serial port by typing `start /SP/console`.

The output is routed to the local console.

## ▼ How to Install From a Remote Console

You can install the OS and administer the server from a remote console by establishing a network connection to the server SP.

Examples of remote consoles include:

- Web-based client connection using the ILOM Remote Console application
- SSH client connection using a serial console

### 1 Establish an IP address for the server SP.

For details, refer to either the *Oracle Integrated Lights Out Manager (ILOM) 3.0 Getting Started Guide* or the *Oracle Integrated Lights Out Manager (ILOM) 3.0 documentation collection*. The ILOM 3.0 documentation collection is located here: <http://docs.sun.com/app/docs/prod/int.lights.mgr30#hic>

- 2 Establish a connection between a remote console and the server SP:
  - For web-based client connection, perform these steps:
    - a. In a web browser, type the IP address for the server SP.
    - b. Log in to the ILOM web interface.
    - c. Redirect the video output from the server to the web client by launching the ILOM Remote Console.
    - d. Enable device redirection (mouse, keyboard, etc.) in the Device menu.
  - For SSH client connection, perform these steps:
    - a. From a serial console, establish an SSH connection to the server SP (`ssh root@ipaddress`)
    - b. Log in to the ILOM command-line interface.
    - c. Redirect the video output from the server to the SSH client by typing  
`start /SP/console`

---

**Note** – For additional information about establishing a remote connection to the ILOM SP or using the ILOM Remote Console, refer to either the *Oracle Integrated Lights Out Manager (ILOM) 3.0 Getting Started Guide* or the *Oracle Integrated Lights Out Manager (ILOM) 3.0 documentation collection*. The ILOM 3.0 documentation collection is located here: <http://docs.sun.com/app/docs/prod/int.lights.mgr30#hic>.

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## ▼ How to Install From Local Boot Media

You can start the operating system installation to a server by booting a local or remote installation media source. The following identifies the supported media sources and the setup requirements for each source.

Local boot media requires a built-in storage device on the server or an external storage device attached to the server. Supported OS local boot media sources can include CD/DVD-ROM installation media, and, if applicable, floppy device driver media.

- 1 If your server does not contain a built-in storage device, attach the appropriate storage device to the server using a USB connector
- 2 For more information about how to attach local devices to the server, refer to **“Connecting Cables and Powering On to Standby-Power Mode”** in *Sun Fire X2270 M2 Server Installation Guide*.

## ▼ How to Redirect Boot Media From a Remote Storage Device

Remote media requires you to boot the install over the network. You can start the network installation from a redirected boot storage device.

To redirect the boot media from a remote storage device, perform these steps:

- 1 **Insert the boot media into the storage device, for example:**
  - For CD/DVD-ROM, insert media into the built-in or external CD/DVD-ROM drive.
  - For a device driver floppy ISO image, ensure that ISO image, if applicable, is readily available on a network shared location or on a USB drive.
  - For device driver floppy media, if applicable, insert the floppy media into the external floppy drive.
- 2 **Establish a web-based client connection to the ILOM server SP and launch the ILOM Remote Console application. For more details, see the Setup Requirements for a web-based client connection in “Solaris Installation Methods” on page 11.**
- 3 **In the Device menu of the ILOM Remote Console application, specify the location of the boot media, for example:**
  - For CD/DVD-ROM boot media, select CD-ROM.
  - For CD/DVD-ROM ISO image boot media, select CD-ROM Image.
  - For floppy device driver boot media, select Floppy.
  - For floppy image device driver boot media, select Floppy Image.

For more information about the ILOM Remote Console, refer to either the *Oracle Integrated Lights Out Manager (ILOM) 3.0 User's Guide* or the *Oracle Integrated Lights Out Manager (ILOM) 3.0* documentation collection:

<http://docs.sun.com/app/docs/prod/int.lights.mg30#hic>

**See Also** “PXE Installation” on page 13

## ▼ PXE Installation

An automated installation image enables you to perform the OS installation on multiple servers. By using an automated image, you can ensure configuration uniformity among many systems. Automated installations use a PXE technology to enable the clients without an operating system to boot remotely to the automated installation server that installs the operating system.

- 1 **Configure the network server to export the installation using a PXE boot.**
- 2 **Make the OS installation media available for PXE boot.**  
If you are using an automated OS installation image, you need to create and provide the automated OS installation image, for example the Solaris Jump Start Image.
- 3 **To boot the installation media, select the PXE boot interface card as the temporary boot device.**  
For details, see the applicable PXE-based operating system installation procedure.

## Installation Targets

The Installation Targets for OS Installations table identifies the supported installation targets that you can use to install an operating system.

TABLE 2 Installation Targets for OS Installations

Installation On Target	Description	Setup Requirement
Local Hard Disk Drive (HDD) or Solid State Drive (SSD)	You can choose to install the operating system to any of the HDDs or SSDs installed in the server.	Ensure that the HDD or SSD is properly installed and powered-on in the server.  For more information about installing and powering on an HDD or SSD, refer to “ <a href="#">Removing and Installing Flash Memory Modules (CRU)</a> ” in <i>Sun Fire X2270 M2 Server Service Manual</i>
Sun flash modules <b>Note</b> – This option is not available on all servers.	If your system is equipped with optional Sun flash modules, you can choose to install a supported operating system to the Sun flash modules.	Ensure that the Sun flash module options are properly installed in the server.  For more information about installing this option, refer to “ <a href="#">Removing and Installing Flash Memory Modules (CRU)</a> ” in <i>Sun Fire X2270 M2 Server Service Manual</i> .

# Verifying BIOS Settings for New Installations

For all new operating system installations on a hard disk drive, you should verify that the following BIOS settings are properly configured before you perform the operating system installation:

- System time
- System date
- Boot order

In the BIOS Setup utility, you can set optimal defaults, as well as view and edit BIOS settings as needed. Note that all changes you make in the BIOS Setup utility (through F2) are permanent until the next time you change them.

---

**Note** – If necessary, you can specify a temporary boot device by pressing F8 during the BIOS start-up. Note that a temporary boot device setting is only in effect for the current system boot. After the system boots from a temporary boot device, the permanent boot device setting specified through F2 (in the BIOS) is in effect.

---

## ▼ How to View or Edit BIOS Settings for New Installations

**Before You Begin** Ensure that the following requirements are met prior to accessing the BIOS Setup utility:

- Server is mounted and powered on in a rack. For details, refer to the [Sun Fire X2270 M2 Server Installation Guide](#).
- Server is equipped with a hard disk drive (HDD) or solid state disk drive (SSD).
- HDD or SSD is properly installed in the server. For details, refer to the [Sun Fire X2270 M2 Server Service Manual](#).
- Console connection is established to the server.

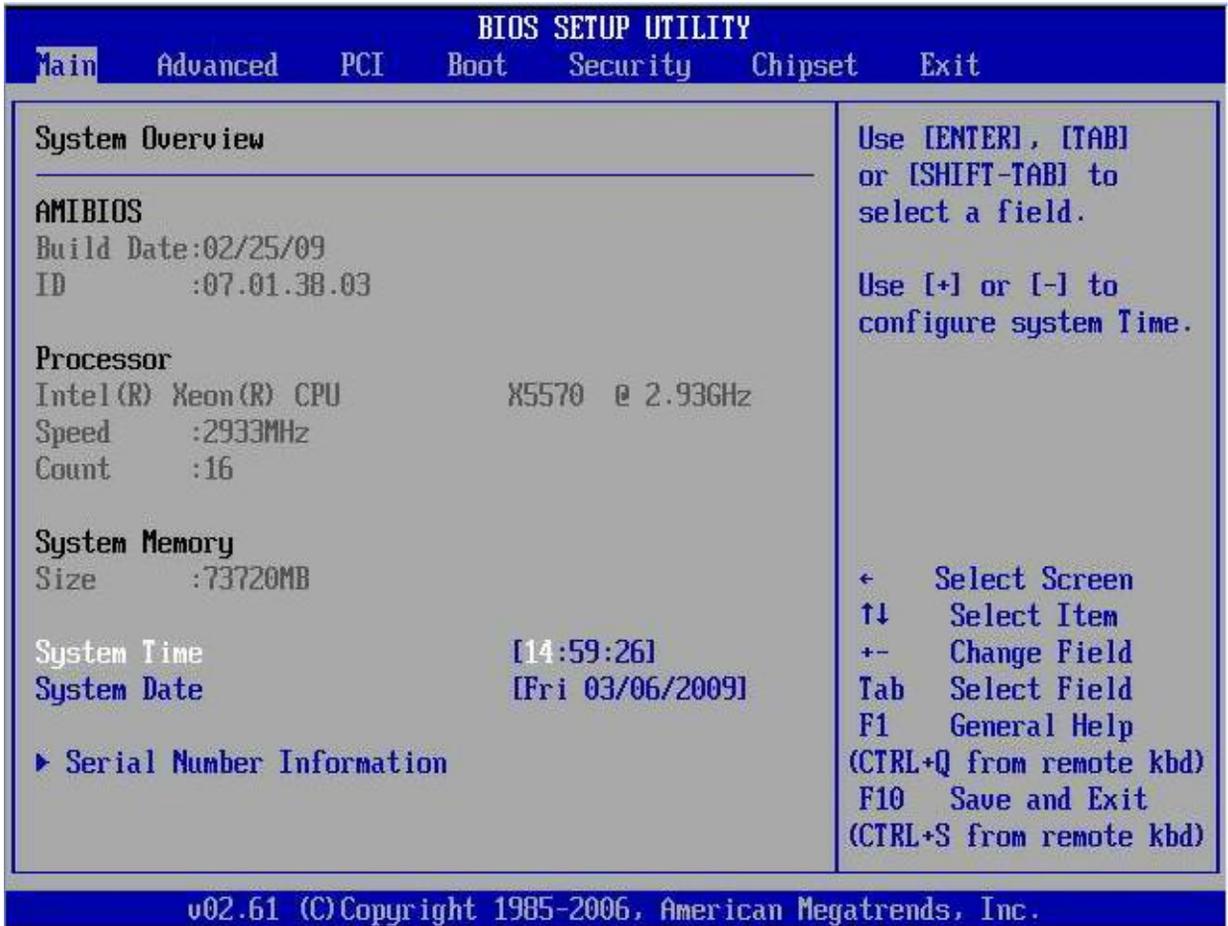
### 1 Reset the power on the server.

For example:

- **From the ILOM web interface**, select Remote Control → Remote Power Control, then select the Power Cycle option from the Host action drop-down list box.
- **From the local server**, press the Power button (approximately, one second) on the front panel of the server to turn the server off, then press the Power button again to turn the server on.
- **From the ILOM CLI**, type: `reset /SYS`  
The BIOS screen appears.



- 2 When prompted in the BIOS screen, press F2 to access the BIOS Setup utility.  
After a few moments, the BIOS Setup utility appears.



- 3 To ensure that the factory defaults are set, do the following:
  - a. Press F9 to automatically load the optimal factory default settings.  
A message appears prompting you to continue this operation by selecting OK or to cancel this operation by selecting CANCEL.
  - b. In the message, highlight OK, then press Enter.  
The BIOS Setup utility screen appears with the cursor highlighting the first value in the system time field.

- 4 In the BIOS Setup utility, do the following to edit the values associated with the system time or date:
  - a. Highlight the values you want to change. Use the up or down arrow key to change between the system time and date selection.
  - b. To change the values in the highlighted fields, use these keys:
    - PLUS (+) to increment the current value shown
    - MINUS (-) to decrement the current value shown
    - ENTER to move the cursor to the next value field
- 5 To access the boot settings, select the Boot menu.

The Boot Settings menu appears.
- 6 In the Boot Settings menu, use the down arrow key to select Boot Device Priority, then press Enter.



The Boot Device Priority menu lists the order of the known bootable devices, with the first device in the list having the highest priority.

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**Note** – The boot device order listed on your screen might differ from the device order shown in the following sample screen.

---

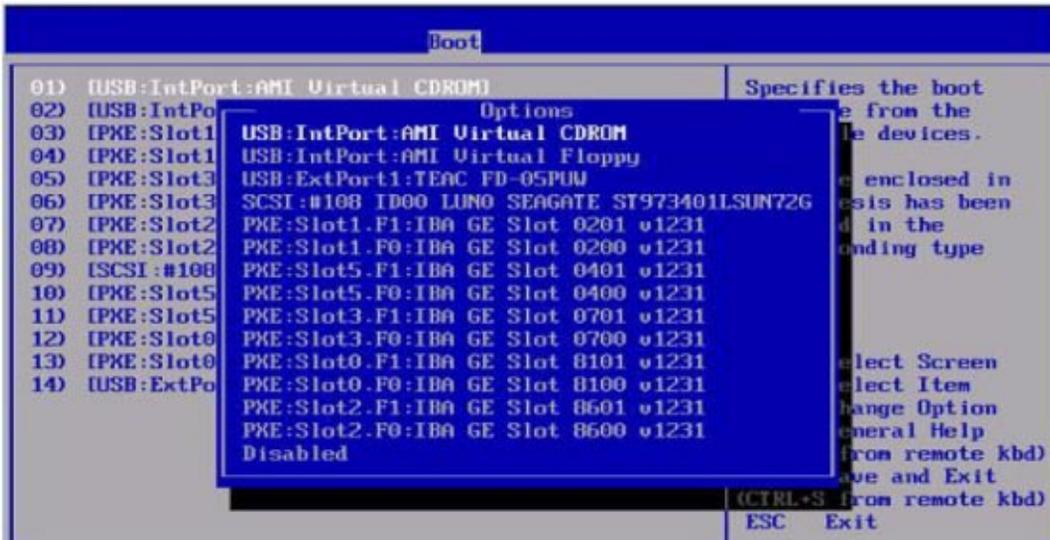


- 7 In the Boot Device Priority menu, do the following to edit the first boot device entry in the list:
  - a. Use the up and down arrow keys to select the first entry in the list, then press Enter.
  - b. In the Options screen, use the up and down arrow keys to select the default permanent boot device, then press Enter.

---

**Note** – The boot options listed on your screen might differ from the options shown in the following sample screen.

---



The device strings listed on the Boot menu and Options menu are in the format: Device Type, Slot Indicator, and Product ID String.

**Note** – You can change the boot order for other devices in the list by repeating Steps 7a and 7b for each device entry you want to change.

**8 To save your changes and exit the BIOS Setup utility, press F10.**

**Note** – When using the ILOM Remote Console, F10 is trapped by the local OS. You must use the F10 option listed in the Keyboard drop-down menu that is available at the top of the Remote Console.

Alternatively, you can save the changes and exit the BIOS Setup utility by selecting Save on the Exit menu.

A message appears prompting you to save changes and exit setup.

**9 In the message dialog, select OK, then press Enter.**

# Installing Oracle Solaris 10

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This topic provides information about installing the Oracle Solaris 10 10/08 Operating System (Oracle Solaris 10 OS) on a Sun Fire X2270 M2 Server.

This topic includes the following:

- “How to Install Oracle Solaris 10 Using Local or Remote Media” on page 21
- “Post Solaris Installation Configuration” on page 27
- “Installing System Device Driver(s) to Support Additional Hardware” on page 27
- “How to Install System Device Drivers Using Local or Remote Media” on page 28
- “How to Install the System Device Driver Using a Network Share or USB Device” on page 29
- “Installing Critical Solaris Patches” on page 29

To install the preinstalled Solaris 10 image, refer to “Configuring the Preinstalled Oracle Solaris 10 Operating System” in *Sun Fire X2270 M2 Server Installation Guide*.

## ▼ How to Install Oracle Solaris 10 Using Local or Remote Media

### Before You Begin

Meet all applicable installation prerequisites for installing an operating system. For further information about these prerequisites, see “[Task Map for the Solaris 10 Installation](#)” on page 9.

---

**Note** – The following procedure explains the initial steps for booting the install media and launching the Solaris installation program. For further details about installing Solaris 10, see the *Solaris 10 Installation Guide: Basic Installations*.

---

#### 1 Ensure that the install media is available to boot.

- For distribution CD/DVD, insert the Solaris 10 Distribution media (CD labeled 1 or the single DVD) into the local or remote CD/DVD-ROM drive.
- For ISO images, ensure that the ISO images are available and that the ILOM Remote Console application is aware of the first ISO image location.

For additional information about how to set up the install media, see “[How to Install From Local Boot Media](#)” on page 12 and “[How to Redirect Boot Media From a Remote Storage Device](#)” on page 13.

#### 2 Reset the power on the server.

- **From the ILOM web interface**, select Remote Control → Remote Power Control, then select the Power Cycle option from the Host action drop-down list box.
- **From the ILOM CLI on server SP**, type: `reset /SYS`
- **From the local server**, press the Power button (approximately, 1 second) on the front panel of the server to turn the server off, then press the Power button again to turn the server on.

The BIOS screen appears.

```
www.ami.com American Megatrends
Sun microsystems

AMIBIOS (C) 2006 American Megatrends, Inc.
BIOS Date: 02/25/09 16:04:09 Ver: 08.00.15
Sun BIOS Revision: 07.01.38.03
Sun Fire X4170 Server CPU Power (TDP Limit) = 95 Watts
Product Serial Number:0000000000
CPU : Intel(R) Xeon(R) CPU X5570 @ 2.93GHz
Speed : 2.93 GHz Count : 16

Press F2 to run Setup (CTRL+E on Remote Keyboard)
Press F12 if you want to boot from the network (CTRL+N on Remote Keyboard)
Press F8 for BBS POPUP (CTRL+P on Remote Keyboard)
QPI Operational Speed at : 6.4GT/s
BMC Firmware Revision: 2.0.2.9
Initializing USB Controllers ..

(C) American Megatrends, Inc.
64-3047-009999-00101111-022509-TYLSBURG-3AD0M030-Y2KC 6B30
```

---

**Note** – The following event occurs very quickly. Watch carefully for the messages, which appear on the screen for only a brief time.

---

**3 Press F8 to display a list of boot devices.**

The Please Select Boot Device menu appears.



**4 In the Please Select Boot Device menu, select either the external or virtual CD/DVD device as the first (temporary) boot device, then press Enter.**

If you are performing the Solaris installation from the ILOM Remote Console application, select in the Boot Device menu the AMI Virtual CDROM.

The GRUB menu appears.

---

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

---

5 In the GRUB menu, select Solaris, then press Enter.

```
WARNING: There will be no MCA support on chip 0 core 0 strand 5 (cmi_hdl_create
returned NULL)

WARNING: There will be no MCA support on chip 1 core 0 strand 5 (cmi_hdl_create
returned NULL)

WARNING: There will be no MCA support on chip 0 core 0 strand 7 (cmi_hdl_create
returned NULL)

WARNING: There will be no MCA support on chip 1 core 0 strand 7 (cmi_hdl_create
returned NULL)

Configuring devices.
/

1. Solaris Interactive (default)
2. Custom JumpStart
3. Solaris Interactive Text (Desktop session)
4. Solaris Interactive Text (Console session)
   (Select option 3 or 4 to install a ZFS root file system)
5. Apply driver updates
6. Single user shell

Enter the number of your choice.
Automatically continuing in 27 seconds
```

6 In the Install Type menu, choose the type of interface that you want to use to perform the installation.

- **Graphical User Interface (default)** – Type 1 then press Enter.
- **Text Installer From Desktop Session** – Type 3 then press Enter.
- **Text Installer From Console Session** – Type 4 then press Enter.

The system discovers and configures the devices and interfaces. If the system discovers a keyboard, the Configure Keyboard Layout menu appears.

---

**Note** – The screens that appear on your system might vary depending on the type of interface you chose to configure in Step 6. The following sample screens are based on the default Graphical User Interface (GUI) option (option 1).

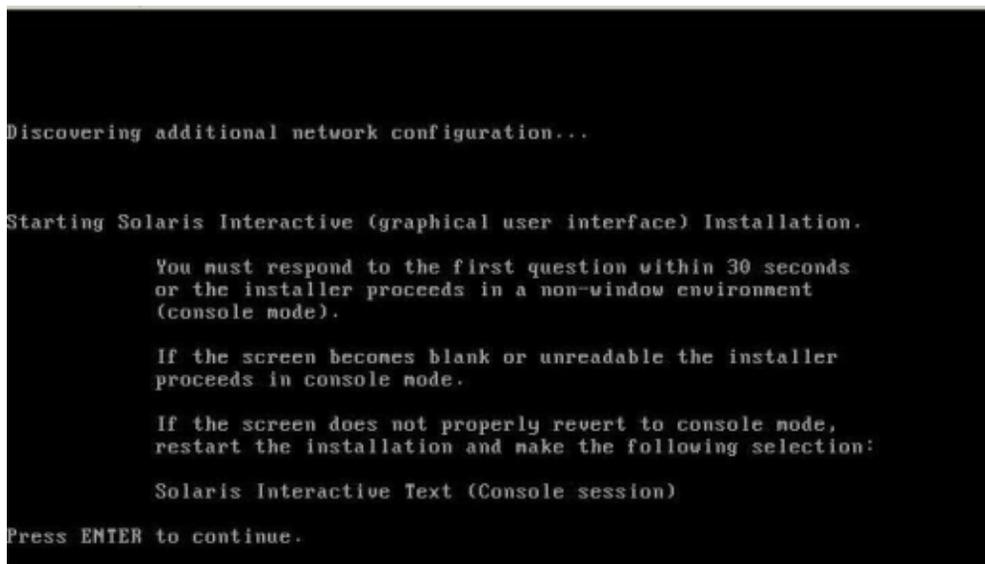
---



- 7 In the Configure Keyboard Layout menu, select the appropriate keyboard layout, then press F2 to continue.

The system configures the keyboard layout selection and searches for configuration files.

If you selected a web interface installation in the earlier steps, the next two steps (Step 8 and Step 9) confirm that the GUI is functioning. If you did not select a web interface earlier, skip to Step 10.



- 8 In the Discovering Network Configurations and Starting Solaris Interactive Installation screen, press Enter.**

A second screen appears to confirm that the web interface is functioning.

If this screen is not legible, restart the installation and consider choosing one of the text modes in Step 6.

- 9 Press Enter.**

The Language Selection menu appears.

- 10 In the Language Selection menu, type the selected language ID number (0-9), then press Enter.**

After a few moments the Solaris Welcome screen appears.

---

**Note** – The following sample screen reflects the web interface installation program. If you are running a text-based installation interface, the text-based Solaris Welcome screen (not shown) appears.

---



**11 In the Solaris Welcome screen, click Next to begin the installation.**

If you preconfigured all the system information, the installation program does not prompt you to enter any configuration information. If you did not preconfigure all the system information, the installation program prompts you for this information on several configuration screens.

**12 Continue the normal Solaris installation and, if necessary, refer to the Solaris documentation for additional details.**

- If you configured the system to reboot when the installation is done, the system automatically reboots and displays the Solaris login prompt.
- If you did not configure the system to automatically reboot when the installation is done, you must manually reboot the system.

**See Also** [“Post Solaris Installation Configuration” on page 27](#)

## Post Solaris Installation Configuration

After completing the Solaris installation and rebooting the Solaris Operating System, perform the following tasks:

- [“Installing System Device Driver\(s\) to Support Additional Hardware” on page 27](#)
- [“Installing Critical Solaris Patches” on page 29](#)

## Installing System Device Driver(s) to Support Additional Hardware

The following system device drivers are available for you to install on your system.

Hardware	Device Driver
AST2100 service processor	AST2100 VGA driver

The following installation methods can be used to install device drivers:

- The tools and drivers CD/DVD can be used with a local or remote install. See [“How to Install System Device Drivers Using Local or Remote Media” on page 28](#).
- An ISO image of the tools and drivers CD/DVD can be used with a remote install. See [“How to Install System Device Drivers Using Local or Remote Media” on page 28](#).
- The `sx86.zip` file can be used with a USB/network share install. See [“How to Install the System Device Driver Using a Network Share or USB Device” on page 29](#).

---

**Note** – The remote installation requires that your server be equipped with an SP.

---

Use one of the following methods to obtain media:

- Use the tools and drivers CD that is provided with the documentation and media kit, which is a customer-orderable option.
- Download an ISO image of the tools and drivers CD. You can use this image for remote installs, or you can burn it to a CD/DVD and use that for local or remote installs.
- Download `sx86.zip` file and use it for USB or network share installs.

Downloads are available at:

<http://wikis.sun.com/display/SystemsComm/Sun+Fire+X2270+M2+Server>

## ▼ **How to Install System Device Drivers Using Local or Remote Media**

**Before You Begin** Obtain a tools and drivers CD/DVD, or an equivalent ISO image.

If you use the remote installation method, you must set up and configure a Sun ILOM Remote Console session. For more information about redirecting devices to the Sun ILOM Remote Console, see “[How to Install From Local Boot Media](#)” on page 12 or “[How to Redirect Boot Media From a Remote Storage Device](#)” on page 13.

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

Either:

- Insert the Tools & Drivers CD into the local or remote CD/DVD-ROM drive.
- In the Device menu of the Sun ILOM Remote Console, select CD-ROM image to specify the location of the ISO image.

### **2 Change to the mounted CD/DVD directory by typing the following command:**

```
# cd <mount_point>/drivers/solaris/sx86
```

### **3 Run the install script by typing the following command:**

```
# sh install.sh
```

The system device driver(s) are now installed. The script prompts you to reboot the system for changes to take effect.

### **4 Reboot your server.**

## ▼ How to Install the System Device Driver Using a Network Share or USB Device

If your server is not equipped with an SP, you can install device drivers from a shared network location or from a locally attached USB device.

**Before You Begin** Obtain a `sx86.zip` file from the download site:

<http://wikis.sun.com/display/SystemsComm/Sun+Fire+X2270+M2+Server>

**1 Download and unzip the contents of the `sx86.zip` file to a USB flash device or shared network location that is accessible during the installation.**

**2 Change to the mounted USB device or shared network location by typing the following command:**

```
# cd <mount_point>
```

**3 Run the install script by typing the following command:**

```
# sh install.sh
```

The system device driver(s) are now installed. The script prompts you to reboot the system for changes to take effect.

**4 Reboot your server.**

## Installing Critical Solaris Patches

Critical Solaris Patches identifies the critical Solaris patches available to install on your system. You should review this table to determine which patch, if any, are currently required for installation on your system.

TABLE 3 Critical Solaris Patches

Critical Solaris Patch	Description
138626-02	The Gigabit Ethernet (igb) driver could send a package larger than <code>max_frame_size</code> . This known issue (CR 6716686) can cause the system to hang on NFS writes over the onboard igb ports.
138889-02	Performance counter support for Intel processors (CR 6661753). Fix <code>mp_startup()</code> for diskless MP systems (CR 6657646).
119789-09	IOException can lead to <code>CachingProxyValidationHandler</code> deleting a cached file in the latest LPS patch (CR 6551967).

TABLE 3 Critical Solaris Patches (Continued)

Critical Solaris Patch	Description
121082-08	Prepatch script for 121081-07 121082-07 uses cc-client-adm which is not Alternate Boot Environment safe (CR 6663550).
124864-07	<p>Incorrect overload ambiguity message for template function (CR 6377606).</p> <p>Function try-block around main() asserts or core dumps (CR 6428383).</p> <p>Offset of causes prep_star(): unexpected ir_type (CR 6689032).</p> <p>Assertion: (./lnk/tmplmatchargs.cc, line 193) (CR 6728467).</p> <p>Cannot run C++ program compiled with -g with Sun Studio Express on Solaris 10 machines (CR 6761222).</p> <p>Incorrect offset computation for struct member &gt;2Gb offset (CR 6763250).</p> <p>Compiler cannot choose the most specialized function (CR 6775001).</p> <p>__func__ in switch statement results in bypassed initialization of local variable (CR 6776456).</p>
124868-07	<p>lint2n random behavior due to memory corruption (CR 6722341).</p> <p>lint2 core dumps when run with libumem (CR 6763773).</p>
124869-02	<p>Perflib performs incorrect size of work array at dporfs routine call (CR 6534839).</p> <p>Degraded parallel performance for dtrsm (CR 6557146).</p> <p>Perflib BLAS1 routine cscal might produce an arithmetic error on the AMD64 processors (CR 6568225).</p> <p>PERFLIB: The initial value of the input parameter IPIV is not initialized before the call (CR 6577242).</p> <p>PERFLIB: sunperf_version is not found in dynamic libsunperf (CR 6577261).</p> <p>PERFLIB: Application gets segv at runtime (CR 6577632).</p> <p>PERFLIB: SuperLU routines are absent both in a static, and dynamic library (CR 6577744).</p>
124873-06	<p>dbx crash on startup (CR 6717882).</p> <p>dbx loads object and mmap(s) it over and over (CR 6726139).</p>
126496-02	signal 11 compiling with -g (buffer overrun) (CR 6573504).

TABLE 3 Critical Solaris Patches (Continued)

Critical Solaris Patch	Description
126498-11	<p data-bbox="644 232 1333 260">Incorrect loop iteration on signed/unsigned comparison (x86) (CR 6764759).</p> <p data-bbox="644 279 901 331">Out of memory in cse_driver (CR 6747860).</p> <p data-bbox="644 350 1333 402">Wrong optimization of switch statement by cond_elim phase in Sun Studio 12 iropt (CR 6757204).</p> <p data-bbox="644 421 1300 473">OMP-C: customer code using flush hangs when compiled with mars patch (CR 6761911).</p> <p data-bbox="644 493 1168 520">Miscmpare for an important C benchmark (CR 6765891).</p> <p data-bbox="644 539 1210 567">Inline asm not working in gst-plugins-good code (CR 6706715).</p> <p data-bbox="644 586 1196 614">heap corrupted on Linux processing 255.vortex (CR 6757565).</p> <p data-bbox="644 633 1068 661">struct alignment problem on x86 (CR 6736290).</p> <p data-bbox="644 680 1182 708">64bit code with inline breaks when optimized (CR 6547609).</p> <p data-bbox="644 727 1053 755">tanh giving wrong value on x86 (CR 6773237).</p> <p data-bbox="644 774 1262 826">compiler/ube Optimization breaks SUNWgnome-img-organizer (CR 6774059).</p>
126996-04	<p data-bbox="644 840 1319 892">Processor count off by one because system reports MAX ID, not MAX count (CR 6737408).</p>
127002-04	<p data-bbox="644 909 1205 937">f95 -C causes compiler SegFault for specific code (CR 6619931).</p> <p data-bbox="644 956 1315 1008">SS12 sparc/x85/linux exists with internal error on compilation of cp2k code (CR 6652329).</p> <p data-bbox="644 1027 1268 1079">-native gets wrong cached value when target-identifying code changes, SunWS_cache/prtconf.result... (CR 6732427).</p> <p data-bbox="644 1098 1333 1150">When calling system() from Fortran 90 program the value of the environment variable SHELL is ignored (CR 6737448).</p> <p data-bbox="644 1170 1248 1197">f90comp has problems matching function arguments (CR 6742477).</p> <p data-bbox="644 1216 1319 1244">fpp removes &amp; in &amp;! combinations, breaks continuation lines (CR 6749384).</p> <p data-bbox="644 1263 1319 1291">-Xlist cross reference output omits some loop label references (CR 6750432).</p> <p data-bbox="644 1310 1248 1362">f90 INTERNAL COMPILER ERROR questionable temporization in MakeIndependent with -C and where (CR 6752447).</p>
127144-03	<p data-bbox="644 1378 1305 1430">DATA initialization for hollerith in implied-do loop fails with phoenix (CR 6678702).</p> <p data-bbox="644 1449 1233 1477">implement fwTargetCon to permit NaN generation (CR 6579540).</p> <p data-bbox="644 1496 962 1524">assert on -LOC() call (CR 6560444).</p>



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