Sun Fire X2270 M2 Server Installation Guide

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Contents

Preface

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

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 library page at: http://www.oracle.com/pls/topic/lookup?ctx=sfx2270m2&id=homepage.

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

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

Document Group	Document	Description
	Oracle Integrated Lights Out Manager (ILOM) 3.0 SNMP and IPMI Procedures Guide	How to use SNMP and IPMI commands.
	Oracle Integrated Lights Out Manager (ILOM) 3.0 Management Protocols Reference Guide	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

Oracle is interested in improving product documentation and welcomes your comments and suggestions. You can submit comments by going to this link:

`http://www.oraclesurveys.com/se.ashx?s=25113745587BE578`

▼ Download Server System Tools and Drivers

Patches and the Tools and Drivers CD/DVD ISO image file for your server are now available by from My Oracle Support (MOS). Use this procedure to access server-specific downloads on MOS.

1. **Go to `http://support.oracle.com`.**
2. **Sign in to My Oracle Support.**
3. **At the top of the page, click the Patches and Updates tab.**

   The Patches and Updates screen appears.
4. **In the Search screen, click Product or Family (Advanced Search).**

   The screen appears with search fields.
5. **In the Product field, select the product from the drop-down list.**

   Alternatively, type a full or partial product name (for example, Sun Fire X2270 M2) until a match appears.

6. **In the Release field, select the release from the drop-down list.**

   Expand the folders to see the component offerings.

7. **Click Search.**

   A list of updates (patches) appears.

8. **To select a patch, click the check boxes next to the patch name (you can select more than one patch).**

   A popup action panel appears. The panel contains several action options.

9. **To download the update, click Download in the popup panel.**

   The download begins automatically.

Documents History

- May 2010, initial publication
- June 2010, collection refresh, revisions to –11
- March 2011, *Product Notes* document updated for document errata and SW v1.1.0 and SW v1.2.0 releases. *Windows Operating System Installation Guide* revised for document errata. *Oracle Solaris Operating System Installation Guide* revised for document errata. Service Manual revised for document errata.
- September 2011, *Product Notes* and *OS Installation Guides* updated for SW v1.3.0 release.

Sun Fire X2270 M2 Server Installation Guide

The *Sun Fire X2270 M2 Server Installation Guide* contains information and procedures for maintaining and servicing your server. The table below describes how this content is organized.

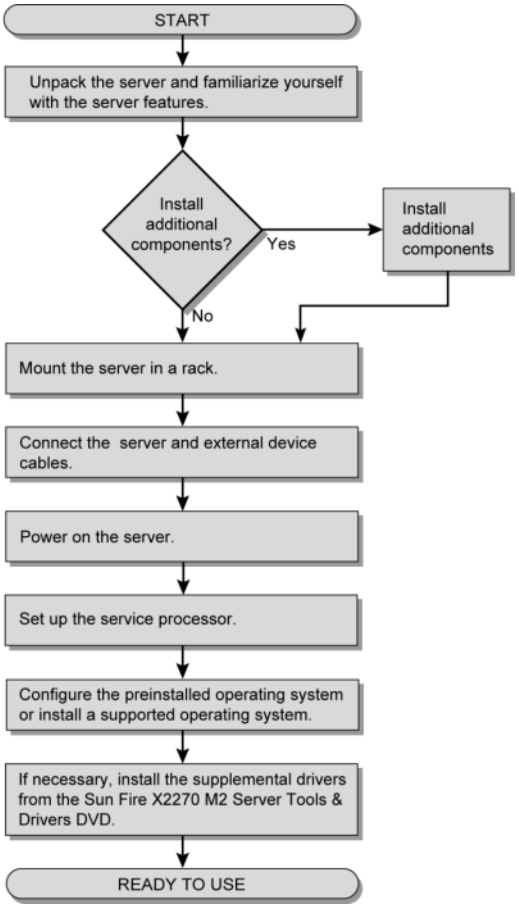
Description	Link
Installation overview and preparation topics	"Installation Overview and Preparation" on page 11
Instructions for installing the server in a rack	"Installing the Server Into a Rack With Optional Slide Rails" on page 19
Information about ILOM and other server management tools	"Managing Your Server" on page 29
Instructions for accessing ILOM and setting up system console	"Communicating With the ILOM and the System Console" on page 31
Instructions for configuring the factory-installed Oracle Solaris 10 OS	"Configuring the Factory—Installed Oracle Solaris 10 Operating System" on page 45
Information about powering the server.	"Powering On and Powering Off the Server" on page 53
Information about Troubleshooting and getting support.	"Troubleshooting and Support" on page 57

Installation Overview and Preparation

Use this information in this section to prepare for the installation of your Sun Fire X2270 M2 server.

Installation Flow Chart

The following installation flowchart provides an overview of the installation process.



Next Step: "Installation Task Table" on page 12

Installation Task Table

The following installation task table provides the steps for installing the server. Review the sequence and click the links for more information.

Step	Task Description	Link
1	Review the basic setup tasks described in the *Sun Fire X2270 M2 Server Getting Started Guide*.	Included in your server accessory kit and available online in the server document library.

Step	Task Description	Link
2	Review safety and compliance information and the list of required tools.	"Safety and Compliance Information" on page 13 "Required Tools" on page 14
3	Familiarize yourself with the server features, components and specifications.	"External Features and Components" on page 14
4	Mount the server in the rack using the optional slide rail kit.	"Installing the Server Into a Rack With Optional Slide Rails" on page 19
5	Cable and power the server to standby mode.	"Connecting Cables and Powering On to Standby-Power Mode" on page 31
6	Manage the server and access ILOM.	"About the ILOM Software" on page 30 "ILOM SP IP Address and the ILOM Interfaces" on page 32
7	Configure the factory-installed OS. -or- Install a supported OS.	"Configuring the Factory-Installed Oracle Solaris 10 Operating System" on page 48 Refer to the OS-specific operating system installation guide included in the server documentation library.
8	Update drivers and firmware	"Updating Supplemental Drivers and Firmware" on page 51
9	Learn more about the Oracle Solaris 10 OS	"Getting Started on the Oracle Solaris OS" on page 51

Next: "Safety and Compliance Information" on page 13

Safety and Compliance Information

Refer to the following documents for safety information regarding the Sun Fire X2270 M2 server:

- *Important Safety Information for Sun Hardware Systems*: printed document included in the ship kit.
- *Sun Fire X2270 M2 Server Safety and Compliance Manual* : available online by navigating to the Sun Fire X2270 M2 server library page at: http://www.oracle.com/pls/topic/lookup?ctx=sfx2270m2&id=homepage

- For service, maintenance, and removal and replacement procedures, refer to the *Sun Fire X2270 M2 Server Service Manual*.

Required Tools

The following is a list of tools that you need to use to install your server.

- Flashlight (or other portable light source)
- No. 2 Phillips screwdriver
- Small flat-tip screwdriver
- Removable cable ties (for dressing external back panel cabling)
- Mechanical lift (optional if additional personnel are present to assist)

Next: "External Features and Components" on page 14

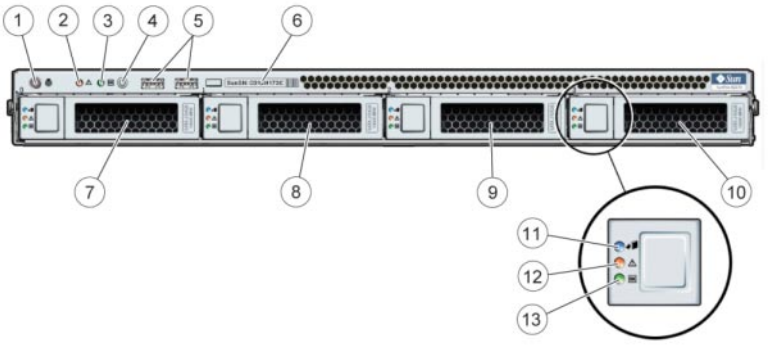
External Features and Components

Before you install the server, inspect the server and use this section to familiarize yourself with the external features and components.

- "Front Panel Features and Components" on page 14
- "Back Panel Features and Components" on page 15

Front Panel Features and Components

Use the following information to familiarize yourself with the front panel features and components.

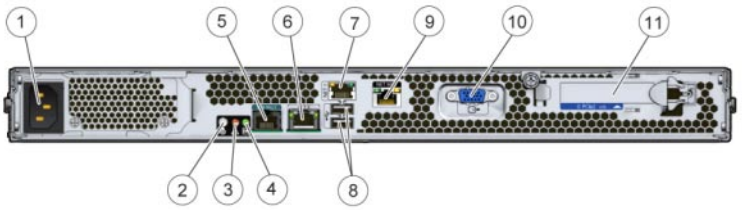


Legend			
1	White Locate LED/button	2	Amber Fault LED
3	Green Power OK LED	4	Power button
5	USB 2.0 ports (2)	6	Server serial number
7	Optional removable SATA HD/SSD 1	8	Optional removable SATA HD/SSD 2
9	Optional removable SATA HD/SSD 3	10	Optional removable SATA HD/SSD 4
11	Blue Disk Drive Ready-to-Remove LED (non operational)	12	Amber Disk Service Action Required LED (non operational)
13	Green Disk Drive OK read and write activity LED		

Next: "Back Panel Features and Components" on page 15

Back Panel Features and Components

Use the following information to familiarize yourself with the back panel features and components.



Legend			
1	AC power connector	2	White Locate LED
3	Amber Fault LED	4	Green Power OK LED
5	Serial Management (SER MGT) port (RJ-45)	6	GigabitEthernet port (NET-0)
7	GigabitEthernet port (NET-1)	8	USB 2.0 ports (2)
9	Network Management (NET MGT) Ethernet port (available only in systems with an SP module)	10	HD-15 video connector (available only in systems with an SP module)
11	PCIe slot (Gen 2, x16)		

Next: "Specifications" on page 16

Specifications

Review the Sun Fire X2270 M2 server specifications before installing the server.

Physical Specifications

Specification	U.S. Customary Units	Metric
Height	1.7 in.	43 mm
Width	17.2 in.	436 mm
Depth	25.6 in.	650 mm
Weight	27.28 lbs (minimum configuration options)	12.4 kg
	29.04 lbs (maximum configuration options)	13.2 kg

Power Specifications

	Range	Current	Frequency
Voltage	100–127/200–240V	6/3A Max.	50/60 Hz

Environmental Specifications

Specification	State	British	Metric
Temperature	Operating (sea level)	41° F to 100° F	5° C to 35° C
	Nonoperating	–40° F to 158° F	–40° C to 70° C

Specification	State	British	Metric
Humidity	Operating	10% to 93% RH non condensing, 80.6° F max wet bulb	10%to 93% RH non condensing, 38° C max wet bulb
	Nonoperating	93% RH, non condensing, 100.4° F max wet bulb	93% RH, non condensing, 43° C max wet bulb
Vibration	Operating	0.12 G x-y, 0.17 G z; 5–500 Hz sine	
	Nonoperating	0.3 G x-y, 0.6 G z;5–500 Hz sine	
Shock	Operating	3.5 G; 11 msec. half-sine	
Maximum operating temperature derating		–1.8° F for every 985 ft. in altitude	–1° C for every 300 m in altitude
Altitude	Operating	0 to 10,000 ft	0 to 3,048 m

Acoustic Noise Specifications

	23° C Idle	23° C Operating
L_wA_d	7.0 B	7.5 B
LpAm	60 dba	70 dba

Installing the Server Into a Rack With Optional Slide Rails

Perform these procedures to install your server into a four-post rack using the slide rail option.

Steps	Description	Topic or Task
1	Review optional slide rail compatibility.	"Optional Slide Rail Compatibility" on page 19
2	Disassemble the slide rails in preparation for installation.	"How to Disassemble the Slide Rails Before Installation" on page 20
3	Install the server mounting brackets on the server.	"How to Install the Mounting Brackets on the Server" on page 21
4	Attach the slide rails to the rack.	"How to Attach the Slide Rail Assemblies to the Rack" on page 21
5	Install the server in the rack.	"How to Install the Server Into the Slide Rail Assemblies" on page 24
6	Verify the installation by checking the operation of the slide rails.	"How to Verify the Operation of the Slide Rails" on page 26
Optional	Remove the server from the rack.	"How to Remove the Server from the Rack" on page 26

Optional Slide Rail Compatibility

- Four-post structure (mounting at both front and rear). Two-post racks are not compatible.
- Rack horizontal opening and unit vertical pitch conforming to ANSI/EIA 310-D-1992 or IEC 60927 standards.
- Distance between front and rear mounting planes of 610 mm and 915 mm (24 in. to 36 in.).
- Clearance depth (to front cabinet door) in front of front rack mounting plane at least 25.4 mm (1 in.).
- Clearance depth (to rear cabinet door) behind front rack mounting plane at least 800 mm (31.5 in.) with the cable management arm, or 700 mm (27.5 in.) without the cable management arm.

- Clearance width (between structural supports and cable troughs) between front and rear mounting planes at least 456 mm (18 in.).

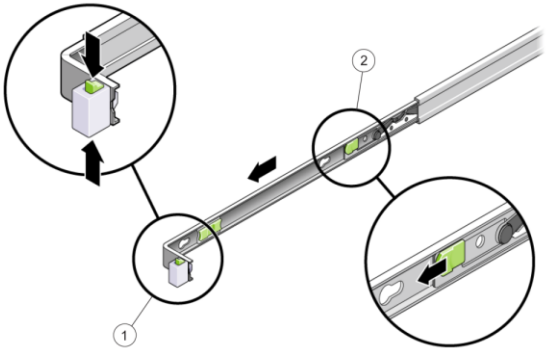
Caution – Always load equipment into a rack from the bottom up so that it does not become top-heavy and tip over. Deploy your rack's anti tilt bar to prevent the rack from tipping during equipment installation.

Caution – Ensure that the temperature in the rack does not exceed the server's maximum ambient rated temperatures. Consider the total airflow requirements of all equipment installed in the rack to ensure that the equipment is operated within its specified temperature range.

How to Disassemble the Slide Rails Before Installation

Use this procedure to remove the mounting brackets from the slide rail assemblies.

1. **Unpack the slide rails.**
2. **Locate the slide rail lock at the front of one of the slide rail assemblies.**
3. **Squeeze and hold the tabs (1) at the top and bottom of the lock while you pull the mounting bracket out of the slide rail assembly until it reaches the stop.**



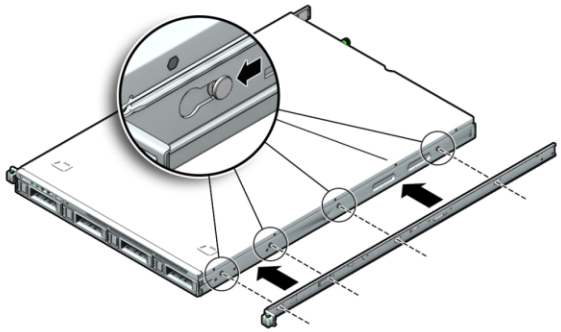
4. **Push the mounting bracket release button toward the front of the mounting bracket (2) and simultaneously withdraw the mounting bracket from the slide rail assembly.**
5. **Repeat for the remaining slide rail assembly.**

Next Steps "How to Install the Mounting Brackets on the Server" on page 21

How to Install the Mounting Brackets on the Server

Use this procedure to install the two mounting brackets onto the sides of the server.

1. **Position a mounting bracket against the chassis so that the slide rail lock is at the server front, and the four keyed openings on the mounting bracket are aligned with the four locating pins on the side of the chassis.**



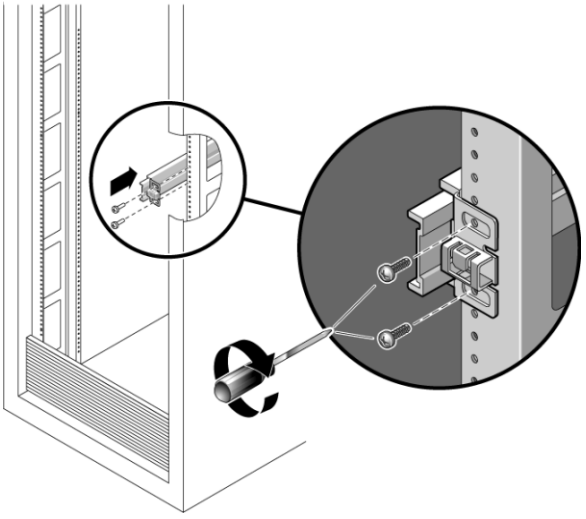
2. **With the heads of the four chassis locating pins protruding though the four keyed openings in the mounting bracket, push the mounting bracket toward the front of the chassis until the mounting-bracket clip locks into place with an audible click.**
3. **Verify that the rear locating pin has engaged the mounting-bracket clip.**
4. **Repeat the previous steps to install the remaining mounting bracket on the other side of the server.**

Next Steps "How to Attach the Slide Rail Assemblies to the Rack" on page 21

How to Attach the Slide Rail Assemblies to the Rack

Use this procedure to install the slide rail assemblies in the rack.

1 **Position a slide rail assembly in your rack so that the brackets at each end of the slide rail assembly are on the outside of the front and rear rack posts.**



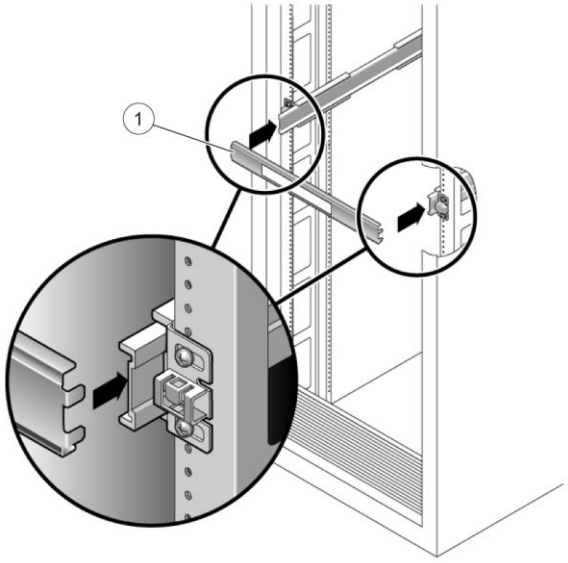
2 **Attach the slide rail assembly to the rack posts, but do *not* tighten the screws completely.**

The method used to attach the slide rails varies, depending on the type of rack:

- If your rack has threaded mounting holes in the rack posts, first determine whether the threads are metric or standard, then insert the correct mounting screws through the slide rail brackets and into the threaded holes.
- If your rack does not have threaded mounting holes, insert the mounting screws through both the slide rail brackets and rack posts, then secure them with the caged nuts.

3 **Repeat the previous steps for the remaining slide rail assembly.**

4 **From the front of the rack, adjust the proper width of the rails with the spacer (1).**
Use the slotted screw holes to provide equal space on both sides.

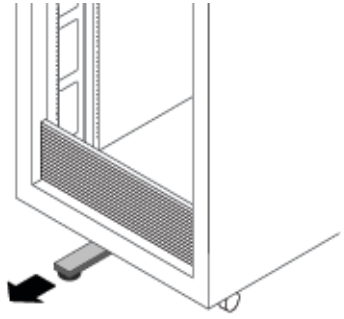


5 **When the width is properly adjusted, tighten the screws on the brackets.**

6 **Remove the spacer and confirm that the rails are attached tightly to the rack.**

7 **Repeat the previous steps for rear of the rack.**

8 **Extend the anti tilt bar at the bottom of the rack.**



Caution – If your rack does not have an anti tilt bar, there is some danger of the rack tipping.

Next Steps "How to Install the Server Into the Slide Rail Assemblies" on page 24

How to Install the Server Into the Slide Rail Assemblies

Use this procedure to install the server chassis, with mounting brackets, into the slide rail assemblies that are mounted to the rack.

Caution – This procedure requires a minimum of two people because of the weight of the server. Attempting this procedure alone could result in equipment damage or personal injury.

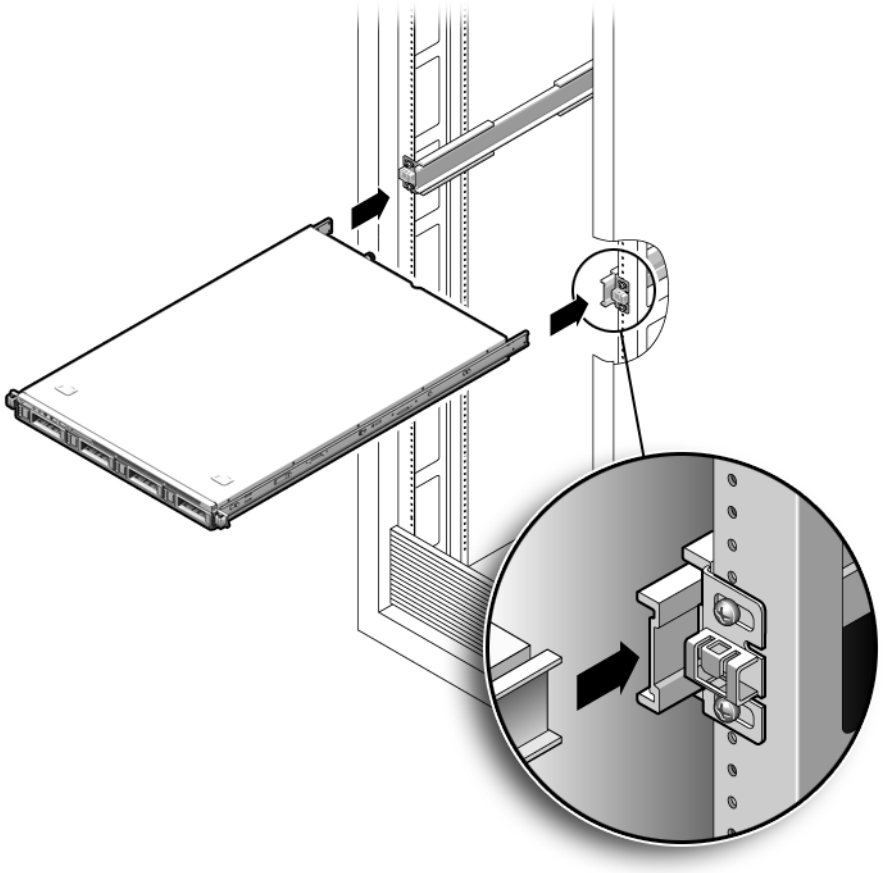
Caution – Always load equipment into a rack from the bottom up so that it does not become top-heavy and tip over. Deploy your rack's anti tilt bar to prevent the rack from tipping during equipment installation.

Before You Begin You must have already installed the mounting brackets on the server to perform this step. See "How to Install the Mounting Brackets on the Server" on page 21.

1. **Ensure that the slide rails and the slide rail assemblies are fully collapsed into the rack.**

   Push the slide rails into the slide rail assemblies and then collapse the assemblies.

2 **Raise the server so that the rear ends of the mounting brackets are aligned with the slide rail assemblies that are mounted in the equipment rack.**



3 **Insert the mounting brackets into the slide rails, then push the server into the rack until the mounting brackets encounter the slide rail stops (approximately 12 in. or 30 cm).**

4 **Simultaneously push and hold the slide rail release buttons on each mounting bracket while you push the server into the rack. Continue pushing until the slide rail locks on the front of the mounting brackets engage the slide rail assemblies.**

You hear an audible click.

Caution – Verify that the server is securely mounted in the rack and that the slide rails locks are engaged with the mounting brackets before continuing.

How to Verify the Operation of the Slide Rails

Use this procedure to ensure that the slide rails are operating correctly.

Note – Two people are recommended for this procedure: one to move the server in and out of the rack, and one to observe the cables.

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1. **Slowly pull the server out of the rack until the slide rails reach their stops.**
2. **Inspect the attached cables for any binding or kinks.**
3. **Push the server back into the rack.**

   When the server is fully extended, you must release two sets of slide rail stops to return the server to the rack:

   a. **The first set of stops are levers, located on the inside of each slide rail, just behind the back panel of the server. These levers are labeled "PUSH." Push in both levers simultaneously and slide the server toward the rack.**

      The server slides in approximately 38 cm (15 in.) and stops.

      Verify that the cables retract without binding before continuing.

   b. **The second set of stops are the slide rail release buttons, located near the front of each mounting bracket. Simultaneously push or pull both of the slide rail release buttons and push the server completely into the rack until both slide rail locks engage.**

4. **Adjust the cable hangers as required.**

How to Remove the Server from the Rack

Caution – Potential for physical harm to personnel or component and facility damage. The weight of the server and uneven weight distribution within the rack can cause physical harm to personnel and damage to components and the facility. Always use a mechanical lift or more than one person to remove the server from the rack. Always use your rack anti-tip bar, keep the weight distribution to the lower end of the rack, and do not extend more than one server at a time.

Use this procedure to safely remove the server from the rack for service or maintenance purposes.

1. **Power off the server.**

2. **Disconnect all cables from the rear of the server.**

   If necessary, label the cables first.

3. **Extend the anti-tip bar at the bottom of the server.**

   The anti-tip bar prevents the rack from tipping over and causing physical harm to personnel and damage to components and the facility.

4. **Squeeze and hold the green slide-rail lock tabs that are located on both sides of the front of the server.**

5. **Pull the server away from the rack until both slide rails lock with an audible click.**

Caution – Include additional personnel from this step forward.

6. **Locate the slide lock release tabs.**

   The release tabs are located on both sides of the server near the center of the mounting brackets.

7. **Prepare to remove the server from the rack. Position at least one person on each side of the rack holding the server.**

8. **Pull the slide lock release tabs forward and then pull the server slightly away from the rack just far enough to disengage the slide locks.**

   This action releases the server from the rack allowing it to slide freely.

Caution – Do *not* leave the server unattended.

9. **Slide the server away from the rack until the mounting brackets on the side of the server clear the rails.**

10. **Set the server on a flat stable surface.**

11. **If necessary, push the extended rails into the rack.**

Managing Your Server

This section contains information about the server management tools available for your server.

About Server Management Tool Options

You have several options for managing your server depending on your needs. You might need a tool to manage *many* servers, or you might need a tool to manage a *single* server.

- Managing *many* servers
  - If your server is one of many Oracle x86 and SPARC servers that you want to manage from a single interface, you can use the Oracle Enterprise Ops Center. For information, go to:

    `http://www.oracle.com/us/products/enterprise-manager/opscenter/index.html`
- Managing a *single* server
  - Sun Installation Assistant (SIA) is an application that you can use for initial server configuration . SIA helps you to update firmware (ILOM firmware, BIOS, and RAID controller software) and to automate installation of Linux and Windows operating systems. For more details, refer to the *Sun Installation Assistant 2.3 through 2.4 User's Guide for x64 Servers*.
  - Oracle's Integrated Lights Out Manager (ILOM) is built-in software and hardware that you can use to monitor the status and configuration of your server. For more information, see "About the ILOM Software" on page 30.

About the ILOM Software

Oracle Integrated Lights Out Manager (ILOM) is an integrated hardware and software package that enables advance-level OS-independent server management and monitoring in both low power and full power conditions. ILOM is factory-installed on a variety of Oracle server platforms, including SPARC-based servers and x86–based Sun Fire servers, Sun Blade server modules, and Sun Blade modular chassis systems. This consistency across hardware product lines provides:

- A single , consistent system management interface for operators
- Rich protocol and standards support
- Third-party management support
- System management functions integrated into Oracle servers at no extra cost

With ILOM, you can:

- Learn about hardware errors and faults as they occur
- Remotely control the power state of your server
- View the graphical and non-graphical consoles for the host
- View the current status of sensors and indicators on the system
- Determine the hardware configuration of your system
- Receive generated alerts about system events in advance using IPMI PETs, SNMP traps, or email alerts

The ILOM SP runs its own embedded OS and has a dedicated Ethernet port, which together provide out-of-band management capability. In addition, you can access ILOM from the server host OS. Using ILOM, you can remotely manage your server as if you were using a locally attached keyboard, monitor, and mouse.

ILOM automatically initializes as soon as power is applied to your server. It provides a full-featured, browser-based web interface and has an equivalent command-line interface (CLI). There is also an industry-standard SNMP interface and IPMI interface.

Communicating With the ILOM and the System Console

After you have performed the basic setup tasks described in the "Installation Task Table" on page 12 and installed the server in the rack, use the procedures in this section to setup communication with the ILOM and the system console.

Connecting Cables and Powering On to Standby-Power Mode

▼ How to Connect the Cables

1 **Connect a serial null modem cable to the serial port.**

The default serial port speed is 9600 baud with no flow control.

2 **Connect Ethernet cables to the RJ-45 LAN GigabitEthernet ports as needed.**

Note – The Network Management (NET MGT) Ethernet port on the SP module, or the Serial Management (SER MGT)/ RS-232F /RJ-45 serial port can be used for server management and network access.

The two Gigabit Ethernet ports (NET-0 and NET-1) are the primary network interface controllers (NICs) and should be used for network installation of the operating system and drivers.

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3 **Connect any additional external devices to the server's other ports.**

Next Steps "How to Power On the Server to Standby-Power Mode" on page 32

▼ How to Power On the Server to Standby-Power Mode

Before You Begin For an explanation of power modes, see "Power Modes" on page 53.

1. **Connect the AC power cords to the AC connector on the back of the server.**
2. **Connect the AC power cords to a live grounded power outlet. Do *not* press the front panel Power button.**

   When AC power is supplied to the server, the green Power OK LED on the front panel rapidly blinks.
3. **To attain server standby-power mode, wait for the green front panel Power OK LED to blink slowly.**

See Also
- "How to Power On the Server" on page 53
- "How to Power Off the Server" on page 54

ILOM SP IP Address and the ILOM Interfaces

The ILOM SP is assigned a DHCP IP address by default. There are two requirements for DHCP IP address assignment to occur:

- Connection to your network must be through a NET MGT port.
- DHCP services must be present on your network infrastructure.

If a DHCP server cannot be reached after three DHCP requests, the ILOM SP is assigned a static IP address based on the network management port MAC address. This IP address is always in the format 192.168.xxx.xxx.

You can choose from one of several ILOM SP interfaces to support system management on your server. You can access SP firmware applications through the following ILOM SP interfaces:

- Serial port command-line interface (CLI) (local access)
- Secure Shell (SSH) CLI (remote access over the network)
- Web browser user interface (BUI) (remote access over the network)

Determining the SP IP Address

You need to determine the service processor (SP) IP (network) address to use the SP ILOM to manage the server. You can determine the IP address through either one of these ways:

- "How to Get the SP IP Address by Using a Serial Connection and the CLI" on page 33
- "How to Get the SP IP Address By Using the BIOS Setup Utility" on page 34

▼ How to Get the SP IP Address by Using a Serial Connection and the CLI

Before You Begin

- Apply standby-power for your server by plugging an AC cord into the system power supply. See "How to Power On the Server to Standby-Power Mode" on page 32.

1 Verify that your terminal, laptop, or terminal server is operational.

2 Configure the terminal emulation software running on a laptop or PC to the following settings:

- 8 bits, no parity, 1 stop bit
- 9600 baud
- Disable hardware flow control (CTS/RTS)
- Disable software flow control (XON/XOFF)

3 Connect a serial cable from the RJ-45 SERIAL MGT port on the server back panel to a terminal device.

4 Press Enter on the terminal device to establish a connection between the terminal device and the ILOM SP.

The SP login prompt appears. For example:

```
SUNSP003BA84D777login:
```

where the string SUNSP is the same for all service processors and 003BA84D777 is the product serial number by default (this value can also be the host name, which is assigned by the user or DHCP server).

5 Log in to the ILOM.

- Type the default user name: **`root`**
- Type the default password: **`changeme`**

The SP command prompt appears:

```
–>
```

You can now run CLI commands to configure the ILOM for the server user accounts, network settings, access lists, alerts, and so on. For detailed instructions on CLI commands, refer to the *Oracle Integrated Lights Out Manager 3.0 CLI Procedures Guide*.

6 **To display the SP IP address, type:**

```
show /SP/network
```

The SP IP address appears along with additional network information.

7 **Make note of the IP address.**

8 **Type `exit` to log out of the ILOM CLI.**

▼ How to Get the SP IP Address By Using the BIOS Setup Utility

Before You Begin You need to have either local or remote (RKVM) access to the server console. See "Connecting to the System Console" on page 37.

1 **Power on or reboot the server.**

2 **Press the F2 key when prompted for the BIOS Setup Utility.**

3 **In the BIOS Setup Utility, choose Advanced→IPMI 2.0 Configuration→Set LAN Configuration.**

4 **Select the IP Address menu item.**

The service processor IP address appears as: `Current IP address in BMC: xxx.xxx.xxx.xxx`

5 **To exit the BIOS Setup Utility, press Esc.**

Connecting to the ILOM

▼ How to Connect to the ILOM Command-Line Interface Using SSH

Before You Begin

- Determine the SP IP address. See "Determining the SP IP Address" on page 33.
- Apply standby-power to the server by connecting AC power to the system power supply.

1. **Connect the server to the Internet with an Ethernet cable connected to the server RJ-45 NET MGT Ethernet port.**

2. **Using a client system, access a command line and establish a Secure Shell (SSH) connection to the service processor IP address with the following command:**

   `ssh -l root` *sp_ip_address*

   For example, to connect to the SP with the DHCP-assigned IP address of 129.144.82.20, type the following command:

   ```
   ssh -l root 129.144.82.20
   ```

3. **Log in to the ILOM.**

   The default user name is `root` and the default password is `changeme`.

▼ How to Connect to the ILOM Command-Line Interface Through the Serial Management Port

Use this procedure to establish a serial connection to the ILOM SP so that you can perform initial configuration of ILOM.

Before You Begin

- Determine the SP IP address. See "Determining the SP IP Address" on page 33.
- Apply standby-power to the server by connecting AC power to the system power supply.
- Verify that your terminal, laptop, or terminal server is operational.

1. **Configure the terminal device or the terminal emulation software running on a laptop or PC to the following settings:**

   - 8 data bits, no parity, 1 stop bit
   - 9600 baud
   - Disable hardware flow control (CTS/RTS)
   - Disable software flow control (XON/XOFF)

2. **Connect a serial cable from the RJ-45 SERIAL MGT port on the server's back panel to a terminal device.**

3. **Press Enter on the terminal device to establish a connection between that terminal device and the ILOM SP.**

   The SP eventually displays a login prompt, such as the following example:

   `SUNSP`*`0111AP0-0814YT06B4`*`login:`

   In this example login prompt:

   - The string SUNSP is the same for all SPs.
   - 0111AP0-0814YT06B4 is the product serial number by default. This value can also be the host name, which is assigned by the user or the DHCP server.

4. **Log in to the ILOM.**

   a. **Type the default user name: `root`.**

   b. **Type the default password: `changeme`.**

      Once you have successfully logged in, the SP displays its default command prompt:

      ```
      ->
      ```

      You can now run CLI commands to configure ILOM for the server's user accounts, network settings, access lists, alerts, and so on. For detailed instructions on CLI commands, the *Oracle Integrated Lights Out Manager 3.0 CLI Procedures Guide.*

5. **To start the serial console, type:**

   ```
   cd /SP/console
   ```

   ```
   ->start
   ```

Note – You can switch back to the SP CLI from the serial console by pressing the **`Esc`** + **`(`** key sequence.

▼ How to Connect to the ILOM Web Interface

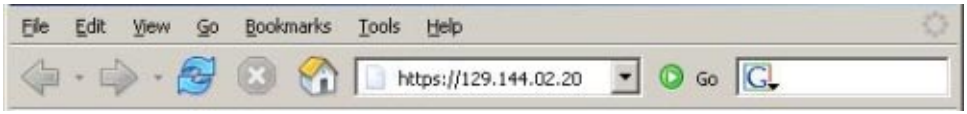
Note – The screen shots presented in this topic are for informational purposes only and might differ slightly from the screens you see.

Before You Begin

- Determine the SP IP address. "Determining the SP IP Address" on page 33.
- Apply standby-power to the server by connecting AC power to the system power supply.

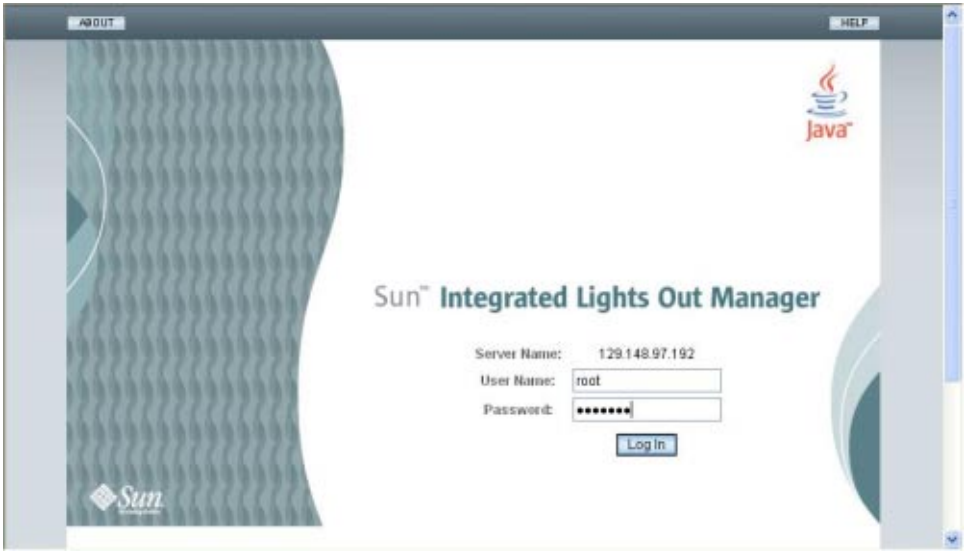
1 **Type the IP address of the ILOM SP in the browser locator box and press Enter.**

For example, if the IP address for your ILOM SP is 129.144.02.20, you would enter it as shown here:



The log-in screen appears.

2 **Log in to the web interface using the default user name, `root`, and the default password, `changeme`.**



Connecting to the System Console

▼ How to Connect to the System Console Locally (Physical Console)

If you plan to interact with the system console locally, you need to make the connections described in this procedure.

1 **Connect a mouse and a keyboard to the server USB connectors.**

2 **Connect a monitor to the server video connector.**

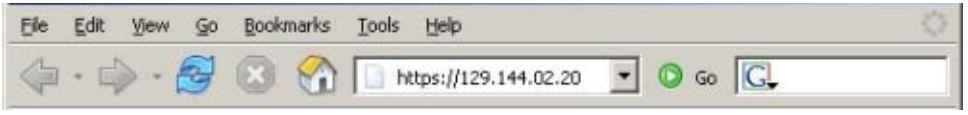
▼ How to Connect to the System Console Remotely Using the ILOM Web Interface

Note – The screen shots presented in this topic are for informational purposes only and might differ slightly from the screens you see.

Before You Begin These are the requirements for the JavaRConsole (remote console):

- Oracle Solaris OS, Linux, or Windows operating system is installed.
- The system must be connected to a network that has access to the server Ethernet management port.
- Java Runtime Environment (JRE) 1.5 or later is installed.
- If the remote console system is running the Oracle Solaris OS, volume management must be disabled for the remote console to access the physical floppy and CD/DVD-ROM drives.
- If the remote console system is running Windows, Internet Explorer Enhanced Security must be disabled.
- The remote console system and ILOM service processor must be set up according to the instructions in the *Oracle Integrated Lights Out Manager (ILOM) Web Interface Procedures Guide*.

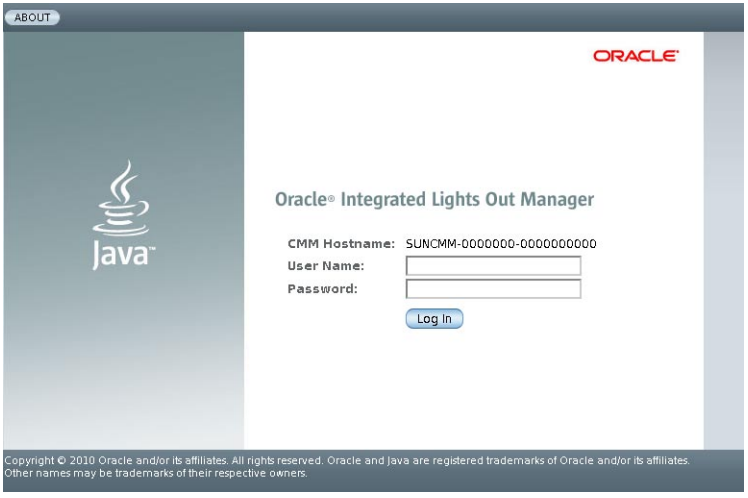
1 **Start the remote console application by typing the IP address of the ILOM service processor into a browser on the remote console system.**



The Security Alert dialog box is displayed.

2 Click Yes.

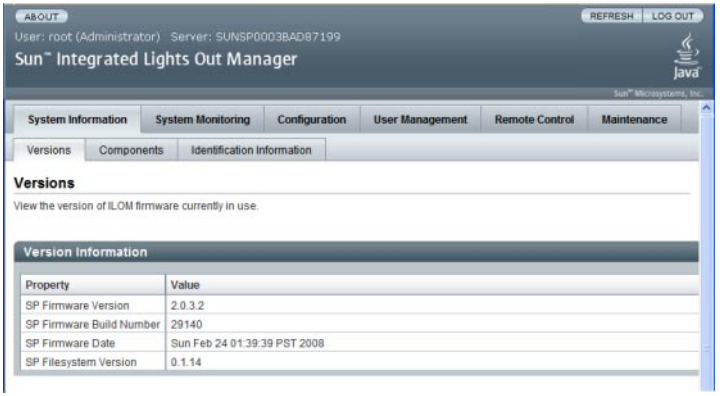
The ILOM login screen appears.



3 Enter the user name and password and click Log In.

The default user name is **`root`** and default password is **`changeme`**.

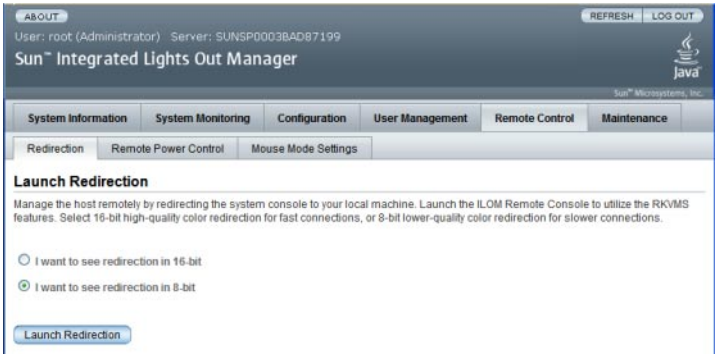
The ILOM Version Information screen appears.



4 Click the Remote Control tab in the ILOM Web interface.

The Launch Redirection screen appears.

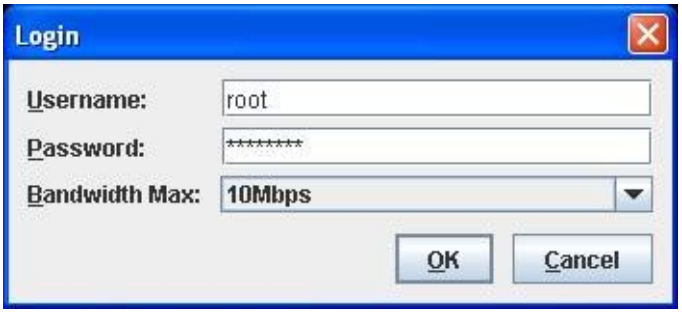
Note – Make sure that the mouse mode is set to Absolute mode in the Mouse Mode Settings tab.



5 Select 8-bit color or 16-bit color, and then click Launch Redirection.

Note – When using a Windows system for remote console redirection, an additional warning appears after you click Launch Redirection. If the Hostname Mismatch dialog box is displayed, click the Yes button.

The Remote Control dialog box appears.



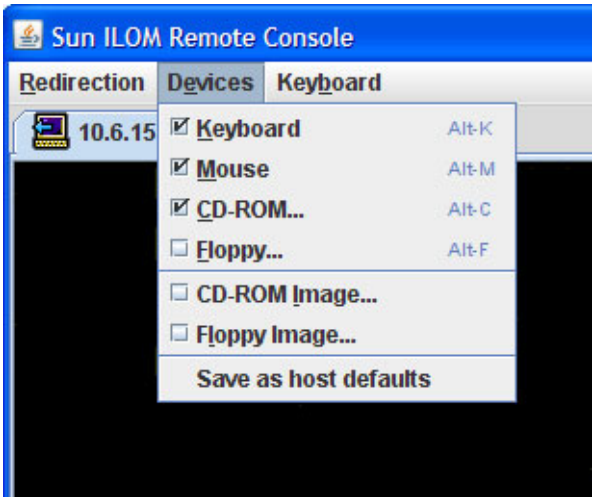
6 **In the Remote Control Login dialog box, enter your user name and password and click OK.**

Note – You must have administrator privileges.

The default user name is **root** and default password is **changeme**.

The JavaRConsole screen appears.

7 **From the Devices menu, select the appropriate item based on the delivery method you have chosen.**



- Remote Physical Floppy Disk: Select Floppy to redirect the server to the physical floppy drive attached to the remote console.
- Remote Floppy Image: Select Floppy Image to redirect the server to the floppy image file located on the remote console.
- Remote Physical CD/DVD: Select CD-ROM to redirect the server to the CD/DVD in the CD/DVD drive attached to the remote console.
- Remote CD/DVD Image: Select CD-ROM Image to redirect the server to the `.iso` image file located on the remote console.

Note – Using the CD-ROM Remote or CD-ROM Image options to install software on your server significantly increases the time necessary to perform the installation because the content is accessed over the network. The installation duration depends on the network connectivity and traffic.

▼ How to Connect to the Serial Console Using the ILOM Command-Line Interface

Before You Begin

- Connect the server to your network through an Ethernet cable.
- If you have not already done so, determine the service processor IP address.

1. **Using a client system, establish a Secure Shell (SSH) connection to the service processor IP address:**

   `ssh -l root` *sp_ip_address*

2. **Log in to the service processor as an administrator.**

   The default user name is **`root`** and default password is **`changeme`**.

   Note – Only accounts with administrator privileges are enabled to configure the SP serial port. Refer to the *Oracle Integrated Lights Out Manager (ILOM) 3.0 CLI Procedures Guide*.

3. **Start the ILOM console mode by typing the following:**

   ```
   start /SP/console
   ```

Setting Up Platform Operating System and Driver Software

After configuring the ILOM SP with network settings, you can configure the factory-installed Oracle Solaris 10 operating system (OS) or install a one of the supported operating systems.

Note – Before installing an OS or performing upgrades and updates to the server, review the most current version the *Sun Fire X2270 M2 Server Product Notes* document, which is available online with the server documentation library.

- For information about how to configure the factory-installed Oracle Solaris 10 OS, see "Configuring the Factory—Installed Oracle Solaris 10 Operating System" on page 45.
- For information about how to install a supported version of Linux, Windows, VMware, or the Oracle Solaris OS, see the specific Sun Fire X2270 M2 Server OS installation guide included with the server online documentation library.

  Note – Oracle highly recommends that you use the Sun Installation Assistant (SIA) software when installing an OS other than the Oracle Solaris OS. SIA helps locate and install all necessary OS components automatically. With SIA, you can install the OS, the appropriate drivers, and if necessary, additional system software by simply booting the SIA media and following the prompts.

- For information about using the Sun Installation Assistant (SIA) to install and configure a supported Linux or Windows OS on your server, refer to the *Sun Installation Assistant 2.3 through 2.4 User's Guide for x64 Servers*.

Configuring the Factory—Installed Oracle Solaris 10 Operating System

Before you begin to configure the factory—installed Oracle Solaris 10 OS, you need to perform the setup tasks described in the section "Installation Overview and Preparation" on page 11. This section contains the following topics:

The Oracle Solaris OS Installation Worksheet

Use the worksheet to gather the information you need to configure the factory-installed Oracle Solaris 10 OS. You need to collect only the information that applies to your application.

Information for Installation		Description or Example	Your Answers: Defaults are noted with an asterisk (*).
Language		Choose from the list of available languages for the Oracle Solaris 10 software.	English*
Locale		Choose your geographic region from the list of available locales.	English (C - 7-bit ASCII)*
Terminal		Choose the type of terminal that you are using from the list of available terminal types.	
Network connection		Is the system connected to a network?	■ Networked ■ Non-networked*
DHCP		Can the system use Dynamic Host Configuration Protocol (DHCP) to configure its network interfaces?	■ Yes ■ No*
If you are not using DHCP, note the network address:	IP address	If you are not using DHCP, supply the IP address for the system. Example: `129.200.9.1`	

Information for Installation		Description or Example	Your Answers: Defaults are noted with an asterisk (*).
	Subnet	If you are not using DHCP, is the system part of a subnet? If yes, what is the netmask of the subnet? Example: `255.255.0.0`	255.255.0.0*
	IPv6	Do you want to enable IPv6 on this machine?	■ Yes ■ No*
Host name		A host name that you choose for the system.	
Kerberos		Do you want to configure Kerberos security on this machine? If yes, gather the following information: Default Realm: Administration Server: First KDC: (Optional) Additional KDCs:	■ Yes ■ No*
Name service: If the system uses a name service, provide the following information.	Name service	Which name service should this system use?	■ NIS+ ■ NIS ■ DNS ■ LDAP ■ None*
	Domain name	Provide the name of the domain in which the system resides.	
	NIS+ and NIS	Do you want to specify a name server or let the installation program find one?	■ Specify One ■ Find One*
	DNS	Provide IP addresses for the DNS server. You must enter at least one IP address, but you can enter up to three addresses. You can also enter a list of domains to search when a DNS query is made. Search Domain: Search Domain: Search Domain:	

Information for Installation		Description or Example	Your Answers: Defaults are noted with an asterisk (*).
	LDAP	Provide the following information about your LDAP profile: Profile name: Profile server: If you specify a proxy credential level in your LDAP profile, gather this information: Proxy-Bind Distinguished Name: Proxy-Bind Password:	
Default route		Do you want to specify a default route IP address or let the Oracle Solaris OS installation program find one? The default route provides a bridge that forwards traffic between two physical networks. An IP address is a unique number that identifies each host on a network. You have the following choices: ■ You can specify the IP address. An `/etc/defaultrouter` file is created with the specified IP address. When the system is rebooted, the specified IP address becomes the default route. ■ You can let the Oracle Solaris OS installation program detect an IP address. However, the system must be on a subnet that has a router that advertises itself by using the ICMP router discovery protocol. If you are using the command-line interface, the software detects an IP address when the system is booted. ■ You can select None if you do not have a router or do not want the software to detect an IP address at this time. The software automatically tries to detect an IP address on reboot.	■ Specify One ■ Detect One ■ None*
Time zone		How do you want to specify your default time zone?	■ Geographic region* ■ Offset from GM ■ Time zone file
Root password		Choose a root password for the system.	

Selecting Your Console Output

You will *not* see the output of the factory-installed Oracle Solaris 10 OS image through a monitor when you power on the server. Instead, the output of the factory-installed image is directed to a *serial console*.

GRUB, the open source boot loader, is the default boot loader. The boot loader is the first software program that runs after you power on a system.

From the GRUB menu, you have the option of displaying the installation process to a VGA connection (video port), as shown in the following figure.

```
*************************************************************************
* Solaris 10 09/10 s10x_u9wos_14a X86  - Serial Port (ttya)       *
* Solaris 10 09/10 s10x_u9wos_14a X86  - Graphics Adapter         *
* Solaris failsafe                                                *
*                                                                 *
*                                                                 *
*                                                                 *
*                                                                 *
*                                                                 *
*************************************************************************
```

Note – The first line of this figure shows the default startup mode.

For example, to display output to the video port, select the following option:

```
Solaris 10 10/08 s10x_u6wos_07b X86 - Graphics Adapter
```

Configuring the Factory-Installed Oracle Solaris 10 Operating System

Configuring the factory-installed Oracle Solaris 10 OS is a menu-driven procedure. However, you need access to the server output to view the procedure. The procedures in this section describe how to configure the factory-installed Oracle Solaris 10 OS using a remote console or a terminal program:

- "How to Configure the Factory-Installed OS Using the Remote Console" on page 48
- "How to Configure the Factory-Installed OS Using a Terminal Program" on page 50

▼ How to Configure the Factory-Installed OS Using the Remote Console

Before You Begin This procedure assumes:

- You have connected the server to your network through an Ethernet cable. See "Connecting Cables and Powering On to Standby-Power Mode" on page 31.
- You have already determined the SP IP address. See "Determining the SP IP Address" on page 33.

1. **Verify that the communication properties of the system serial port are set to the defaults.**

   The default settings are 9600 baud, eight data bits, no parity, one stop bit, disable flow control.

2. **Using a client system, establish a Secure Shell (SSH) connection to the service processor's IP address and log in as an administrator. Type:**

   ```
   # ssh -l root sp_ip_address
   password: changeme
   ```

   Note – You can connect to the ILOM service processor CLI using the serial management port on the rear of the server, or by using SSH over the network.

3. **To access the server serial port, you must connect to the ILOM service processor CLI. Type:**

   ```
   ->
    start /SP/console
   ```

   A message appears prompting you to confirm that you want to start the SP console.

4. **Continue the operation for starting the SP console by typing y (yes) and pressing Enter.**

5. **Press and release the Power button on the server front panel.**

   POST messages appear on your screen as the OS boots and the GRUB boot loader menu appears.

6. **To make the Oracle Solaris OS output appear on the server VGA (video) port, you must select the video port from the GRUB boot loader menu. See "Selecting Your Console Output" on page 48.**

7. **If you have changed the SP serial port default settings, you must reset them to the default settings.**

8. **Follow the Oracle Solaris 10 OS onscreen prompts.**

   Use the information gathered in "The Oracle Solaris OS Installation Worksheet" on page 45 to help you enter the system and network information when prompted.

   The screens that appear will vary, depending on the method that you chose for assigning network information to the server (DHCP or static IP address).

After you have entered the system-configuration information, the server completes the boot process and displays the Oracle Solaris OS login prompt. Refer to the*Sun Fire X2270 M2 Server Installation Guide for Oracle Solaris Operating System* for information about configuring the Oracle Solaris OS.

▼ How to Configure the Factory-Installed OS Using a Terminal Program

Before You Begin This procedure can be used for systems that contain an SP and systems that do not contain an SP. If your system *does not* contain an SP module, skip Step 4 and Step 5 and continue with Step 6 .

1. **Connect a cable from the serial port of the server to the serial port of the host system.**

2. **Verify that the communication properties of the serial port of the host system are set to the defaults.**

   The default settings are 9600 baud, eight bits, no parity, one stop bit, disable flow control.

3. **Start a terminal session to capture the serial port output by doing one of the following:**

   On a client running the Oracle Solaris OS, type:

   $ **tip -9600 /dev/ttya**

   - On a client running Windows, start a program such as Hyperterminal.
   - On a client running Linux, start a program such as Minicom, a text-based serial communication program that is included in the Linux distributions. For more information, see the man pages included in the Linux distribution.

4. **Log in to the service processor as an administrator, for example:**

   ```
   login: root
   password: changeme
   ```

5. **Start the ILOM SP CLI by typing the following:**

   ```
   -> start /SP/console
   ```

6. **Press and release the Power button on the server front panel.**

   POST messages appear on your screen as the OS boots.

7. **Follow the Oracle Solaris 10 OS preinstallation onscreen prompts.**

   Use the information gathered in "The Oracle Solaris OS Installation Worksheet" on page 45 to help you configure the system and the network.

The screens that appear will vary, depending on the method that you chose for assigning network information to the server (DHCP or static IP address).

After you have entered the system-configuration information, the server completes the boot process and displays the Oracle Solaris OS login prompt. See the*Sun Fire X2270 M2 Server Installation Guide for Oracle Solaris Operating System* for information about configuring the Oracle Solaris OS.

Updating Supplemental Drivers and Firmware

The most up-to-date information about hardware, software, drivers, and firmware is available in the *Sun Fire X2270 M2 Server Product Notes*. The latest drivers and firmware are available on the latest version of the Tools and Drivers CD/DVD for your product. The Tools and Drivers CD/DVD is available as a component in the Documentation and Media X-Option Kit, which can be ordered from Oracle. The Tools and Drivers CD/DVD is also available online as an ISO image from the server product download page.

For information about how to use the Tools and Drivers CD/DVD, refer to the *Sun Fire X2270 M2 Server Service Manual*

Getting Started on the Oracle Solaris OS

Oracle Solaris 10 OS Training

Oracle provides flexible training options that accommodate your personal schedule and learning style. The training options include instructor-led, web-based online, CD-ROM, and Live Virtual Class. For Oracle Solaris 10 Training and Certification options at a glance, please visit:

`http://www.oracle.com/us/education/selectcountry-new-079003.html`

Downloading Oracle Solaris 10 OS Software

If you need to install the Oracle Solaris 10 OS or reinstall the OS after removing it, you can download the CD or DVD image from the following site:

`http://www.oracle.com/technetwork/server-storage/solaris/downloads/index.html`

Refer to the*Sun Fire X2270 M2 Server Installation Guide for Oracle Solaris Operating System* for specific instructions on Oracle Solaris 10 OS installation.

Accessing Oracle Solaris 10 OS User Documentation

You can access the various libraries of the Oracle Solaris 10 OS user documentation at:

`http://www.oracle.com/technetwork/documentation/solaris-10-192992.html`

Powering On and Powering Off the Server

Power Modes

The Sun Fire X2270 M2 server has two power modes, *full-power mode* and *standby-power mode*. In full-power mode, power is supplied to all the server components (for example, CPU modules, hard drives, fans). Full-power mode is the normal operational mode for the server. When the server is in full-power mode, the server boots and the operating system (OS) functions. You achieve full-power mode by pressing the Power button on the front of the server when the server is in standby-power mode. When the server is in full-power mode the Power OK LED is on continuously (does *not* blink).

Standby-power mode is the non operating mode. That is, the server is in a low-power or powered-down state and is not capable of booting and starting the OS. In standby–power mode, minimum power is supplied only to the components that are required for low—power system management, such as the service processor (SP). You achieve standby-power mode by connecting the server to an AC supply using the AC power cords. To sustain standby-power mode, you must *not* press the front panel Power button. You can also achieve standby-power mode by powering off the server from full-power mode using one of the methods described in the section, "How to Power Off the Server" on page 54. When the server is in standby-power mode the Power OK LED on the front panel blinks.

See also:

- "How to Power On the Server to Standby-Power Mode" on page 32
- "How to Power On the Server" on page 53
- "How to Power Off the Server" on page 54

▼ How to Power On the Server

Before You Begin For an explanation of power modes, see "Power Modes" on page 53.

1. **Verify that the server's power supply is connected to a grounded AC power source and that the server is in standby-power mode.**

   In standby-power mode, the Power OK LED on the front panel blinks, indicating that the service processor is working and the system is ready to be powered on to full-power mode.

2. **Press and release the recessed Power button on the server front panel.**

   The server performs power-on system tests (POST) and boots to the OS.

See Also

- "How to Power On the Server to Standby-Power Mode" on page 32
- "How to Power Off the Server" on page 54

▼ How to Power Off the Server

Before You Begin For an explanation of power modes, see "Power Modes" on page 53.

1. **To gracefully power off the server from full-power mode to standby-power mode, use the operating system-specific shutdown procedure for the OS running on your server.**

   All operating systems have a shutdown procedure. This shutdown procedure provides a graceful shutdown of the OS, and it should be your first choice for powering off the server.

2. **To gracefully power off the server from full-power mode to standby-power mode using the Power switch, use a stylus or other nonconducting pointed object to quickly press and release the Power button on the front panel.**

Caution – Potential data loss. Pressing and releasing the Power button causes Advanced Configuration and Power Interface (ACPI)–enabled operating systems to perform an orderly shutdown of the operating system. Servers not running ACPI-enabled operating systems perform an emergency shut down to standby-power mode.

When the server is in standby-power mode, the Power OK LED on the front panel blinks, indicating that standby-power is still available.

Caution – In standby-power mode, power is still directed to some components. To completely power off the server, you must disconnect the AC power cords from the back panel of the server.

3. **To perform an emergency shutdown of the server power, press and hold the Power button for four seconds to force a power down to standby-power mode.**

Caution – Potential data loss. Pressing and holding the Power button for four seconds performs an immediate shutdown of the server. The system does not prompt for confirmation, nor are you allowed to save and exit open applications.

4 **To completely power off the server, remove the AC power cable(s).**

See Also

- "How to Power On the Server to Standby-Power Mode" on page 32
- "How to Power On the Server" on page 53

Troubleshooting and Support

This section contains information to help you troubleshoot minor server setup problems. It includes the following topics:

Troubleshooting the Sun Fire X2270 M2 Server

If you experience problems while setting up your server, use the following table to troubleshoot the issue.

Problem	Possible Solution
Server powers on, but the monitor does not.	■ Is the Power button for the monitor turned on? ■ Is the monitor power cord connected to a wall outlet? ■ Does the wall outlet have power? Test by connecting another device.
No video is displayed on the monitor screen.	■ Is the monitor cable attached to the video connector? ■ Does the monitor work when connected to another system? ■ If you have another monitor, does it work when connected to the original system? ■ If, after POST and BIOS complete, you no longer see video output on your monitor and only see a flashing cursor, check the configuration of the operating system to determine whether it is configured to redirect its output exclusively over the serial line.

Problem	Possible Solution
Server does not power on when the front panel Power button is pressed.	Keep notes on the following situations in case you need to call Oracle service: ■ Is the Power OK LED illuminated on the front of the system? (Ensure that the power cord is connected to the system and to a grounded power supply.) ■ Does the wall outlet have power? Test by connecting another device. ■ Does the monitor synchronize within five minutes after power–on? (The green LED on the monitor stops flashing and remains illuminated.)
Keyboard or mouse does not respond to actions.	■ Verify that the mouse and keyboard cables are connected to the on-board USB 2.0 ports on the server. ■ Verify that the server is powered on and the front Power OK LED is illuminated.
Server appears to be in standby power mode, but the Power OK LED does not blink.	The Power OK LED only blinks when all server components are in standby power mode. A tape drive might be connected to your server. Because tape drives do not enter standby power mode, the Power OK LED does not blink.

Problem	Possible Solution
Server is hung or frozen: no response from mouse or keyboard or any application.	Try to access your system from a different server on the network: 1. On another system, type **ping** *IP_address_of_server*. 2. If a response is returned, then try logging in to the Sun Fire X2270 M2 server using either **telnet**, **ssh** or **rlogin**. 3. If you successfully log in, list the running processes using the **ps** command. 4. Kill any processes that appear unresponsive or should not be running, by using the **kill** *process_ID* command. 5. Check the responsiveness of the Sun Fire X2270 M2 server after each process is killed. If the above procedure does not work, power cycle the server: 6. Press the Power button to power off the server and wait 20 to 30 seconds. 7. Press the Power button again to power on the system.

Note – For additional troubleshooting information, refer to the *Sun Fire X2270 M2 Server Service Manual*.

Contacting Support

If the troubleshooting procedures in this topic fail to solve your problem, then use the following table to collect information that you might need to communicate to support personnel and contact support at:`http://support.oracle.com/`

System Configuration Information Needed	Your Information
Oracle service contract number	
System model	
Operating environment	
System serial number	

System Configuration Information Needed	Your Information
Peripherals attached to the system	
Email address and phone number for you and a secondary contact	
Street address where the system is located	
Superuser password	
Summary of the problem and the work being done when the problem occurred	
IP address	
Server name (system host name)	
Network or internet domain name	
Proxy server configuration	