Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide

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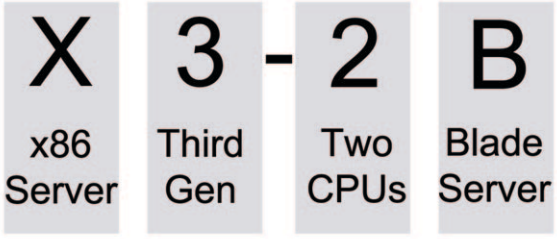
Using This Documentation

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

- "Sun Blade X3–2B Model Name Change" on page 7
- "Getting the Latest Firmware and Software" on page 8
- "Documentation and Feedback" on page 8
- "About This Documentation" on page 8
- "Support and Training" on page 9
- "Contributors" on page 9
- "Change History" on page 9

Sun Blade X3–2B Model Name Change

The Sun Blade X3-2B was previously named the Sun Blade X6270 M3 Server Module. This name might still appear in the software. The name change does not indicate any change in system features or functionality.



The new name identifies the following:

- X identifies an x86 product.
- The first number, 3, identifies the generation of the server.
- The second number, 2, identifies the number of processors.
- The alpha character, B, identifies the product as a blade server.

Getting the Latest Firmware and Software

Firmware, drivers, and other hardware-related software for each Oracle x86 server, server module (blade), and blade chassis are updated periodically.

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

- Oracle System Assistant – This is a new factory-installed option for Sun Oracle x86 servers. It has all the tools and drivers you need and resides on a USB drive installed in most servers.
- My Oracle Support – `http://support.oracle.com`
- Physical media request

For more information, see "Getting Server Firmware and Software" on page 103.

Documentation and Feedback

Documentation	Link
All Oracle products	`http://www.oracle.com/documentation`
Sun Blade X3-2B	`http://www.oracle.com/pls/topic/lookup?ctx=SunBladeX3-2B`
Oracle ILOM 3.1	`http://www.oracle.com/pls/topic/lookup?ctx=ilom31`
Oracle Hardware Management Pack	`http://www.oracle.com/pls/topic/lookup?ctx=ohmp`

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

About This Documentation

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

You can generate a PDF that includes all information about a particular topic subject (such as hardware installation or product notes) by clicking the PDF button in the upper left corner of the HTML page.

Some of the documents are translated into French, Spanish, Simplified Chinese, and Japanese.

The most up-to-date versions of the documents are available in English.

Support and Training

These web sites provide additional resources:

- Support: http://support.oracle.com
- Training: http://education.oracle.com

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Change History

The following lists the release history of this documentation set:

- May/August 2013, Updated the supported OS list in *Product Notes* and revised *Administration Guide*, *Installation Guide*, *Security Guide*.
- March 2013, Revised *Installation Guide* and *Product Notes*.
- January 2013. Revised *Product Notes*, *Administration Guide*, *Installation Guide*
- November 2012. Updated for SW 1.2 and document refresh. Revised *Product Notes*, *Service Manual*, *Installation Guide*, and *Administration Guide*.
- August 2012. Revised *Product Notes* only.
- July 2012. Revised *Product Notes* only.
- July 2012. Server model name changed. All documents revised.
- June 2012. Updated for SW 1.1. Revised *Product Notes* and *Service Manual*.
- May 2012. Updated for SW 1.0.1. Documentation library re-released with editorial revisions.
- April 2012. Initial publication.

About the Installation Procedure

Note – Important: The Sun Blade X3-2B was formerly named the Sun Blade X6270 M3 server module. This name might still appear in the software. The name change does not indicate any change in system features or functionality.

The following table list the tasks that you need to complete to install the Sun Blade X3-2B.

Step	Description	Links
1	Review the server module features.	"About Server Features and Components" on page 13
2	Install the server into the modular system chassis.	"Installing the Server Module" on page 23
4	Cable the server module.	"Cabling the Server Module" on page 29
5	Set up Oracle ILOM.	"Connecting to Oracle ILOM" on page 35
6	Set up your system software and firmware.	"Setting Up Software and Firmware" on page 57
7	Prepare the storage drives for OS installation.	"Preparing the Storage Drives to Install an Operating System" on page 65
8	Configure a preinstalled OS.	■ "Configuring the Preinstalled Oracle Solaris OS" on page 73 ■ "Configuring Preinstalled Oracle VM Software" on page 81 ■ "Configuring the Preinstalled Oracle Linux OS" on page 87
9	Troubleshoot installation issues.	"Troubleshoot Installation Issues" on page 93

About Server Features and Components

This section provides an overview of the features and product specifications of Oracle's Sun Blade X3-2B.

Tasks	Links
Review server features.	"Server Features" on page 13
Locate front panel components.	"Server Module Front Panel and Indicators" on page 15
Locate rear panel components.	"Rear Panel Features" on page 18
Learn about UEFI BIOS.	"UEFI BIOS" on page 19
Review product specifications.	"Specifications" on page 19

Server Features

Feature	Description
Chassis compatibility	Sun Blade 6000 modular system with PCIe 2.0 midplane (standard with models A90–B and A90–D). The minimum Oracle ILOM CMM firmware for each chassis is as follows: ■ A90-B: CMM ILOM 3.0.12.11b (software release 3.3.3) ■ A90-D: CMM ILOM 3.1 (software release 4.2)
Chassis midplane and internal I/O	■ Two x8 PCIe 2.0 bus connections to a chassis PCIe EM slot ■ One x8 PCIe 2.0 bus connection to REM slot ■ Two x8 PCIe bus connections to FEM slots. PCIe port speeds vary by FEM ■ Two 10/100/1000 BASE-T Ethernet ports for NEMs from the FEM
CPU	The Sun Blade X3-2B supports two CPUs. Refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes* for detailed information about supported CPUs.

Feature	Description
Rear panel I/O	Dual internal USB drive ports with rear panel access. Most server modules will have Oracle System Assistant installed on USB drive in port 0. See "Setting Up Software and Firmware" on page 57 for information about setting up your server using Oracle System Assistant.
Front panel I/O	A universal connector port (UCP) is available for use with the multiport (dongle) cable. The multiport cable provides the following interface connections: ■ VGA graphics port (2D embedded graphics controller, resolutions up to 1,280 x 1,024 x 16 bits @60 Hz and 1,024 x 768 when viewed remotely via ILOM RKVMS) ■ RJ-45 serial management port ■ Dual USB ports (keyboard, mouse, USB drive) The front panel also has two front and two internal USB 2.0 ports.
Memory	Twenty-four registered DDR3 DIMMs with ECC memory slots total (12 slots per CPU). Refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes* for details on supported memory.
Network express module (NEM) compatibility	Both 10 GbE and 1 GbE NEM interfaces are supported. Refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes* for details on the supported NEMs.
Operating systems	Oracle Solaris can be optionally preinstalled on the server module. Operating systems such as Oracle Solaris, Linux, and Windows are supported. For a complete list of supported OS versions for your server, refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes*.
Virtualization software	Oracle VM software is supported and can optionally be preinstalled on the server. VMware ESXi is also supported for the server module. For information about specific versions supported, see *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes*.
SP	The server module includes an AST2300 SP. The SP provides IPMI 2.0-compliant remote management capabilities. The SP features: ■ Oracle Integrated Lights Out Manager (ILOM version 3.1) ■ Local Oracle ILOM command-line access using a serial connection ■ 10/100 management Ethernet port to midplane ■ Remote keyboard, video, mouse, and storage (KVMS) over IP

Feature	Description
Storage	■ Four SAS–2 2.5-inch disk bays. Refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes* for details on supported hard drives. ■ Two internal USB 2.0 ports. ■ Two front panel USB 2.0 ports. ■ Two optional LSI REM host bus adapters are supported: ■ Sun Storage 6Gb/s SAS REM HBA (SGX-SAS6-REM-Z) ■ Sun Storage RAID 6Gb/s SAS RAID REM HBA, (SGX-SAS6-R-REM-Z) For more information, see "Preparing the Storage Drives to Install an Operating System" on page 65.
Video	A maximum resolution of 1280x1024 is supported with 8 MB of video memory.

Related Information

- "About the Installation Procedure" on page 11
- "Specifications" on page 19
- "Server Module Front Panel and Indicators" on page 15

Server Module Front Panel and Indicators

The following illustration calls out the front panel features.

FIGURE 1 Server Module Front Panel Features

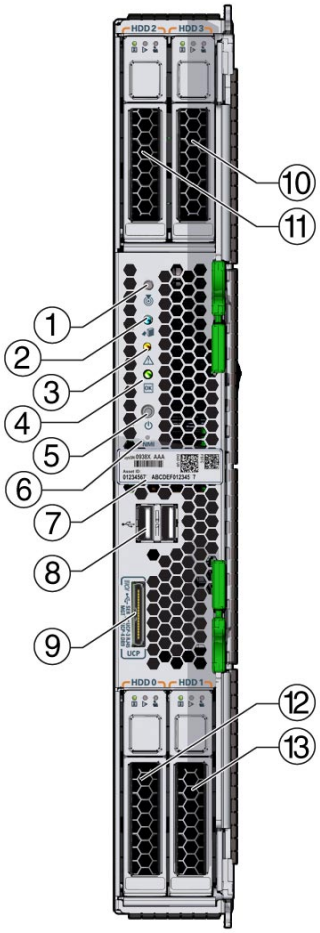


Figure Legend	
1	Locate LED (white light)
2	Ready to Remove LED (blue light)
3	Service Action Required LED (amber light)
4	OK/Power LED (green light)
5	Power button

Figure Legend	
6	NMI button
7	Serial number label
8	USB 2.0 ports (two)
9	Universal connector port (UCP)
10, 11, 12, 13	Hard drives (HDDs) or solid state disks (SSDs)

The topics below describe the function of the front panel components.

Front Panel LEDs and Buttons

This section describes the functions of the front panel LEDs and buttons (see Figure 1).

 **Locate LED and Button**:

White light: Press the button to light the LED and identify server within Oracle ILOM. Also used in some Oracle ILOM procedures.

 **Ready to Remove LED**:

Blue light. Main power off. Safe to remove.

 **Service Action Required LED**:

Amber light. Signals that a fault condition has occurred and an investigation of the issue is required.

OK/Power LED:

Green light. Modes:

 **Power button**:

Press briefly to toggle the server between standby and full power.

NMI button:

For Oracle Service use only. Do not press.

Front Panel Components

This section describes the front panel components (see Figure 1).

- **Serial number label**: Unique number identifies server model within Oracle systems.
- **USB 2.0 ports (two)**: Removable storage.
- **Universal connector port (UCP)**: Used for multiport (dongle) cable.
- **Hard drives (HDDs) or solid state disks (SSDs)**: Server module storage drives.

Related Information

- "About the Installation Procedure" on page 11
- "Server Features" on page 13
- "Specifications" on page 19

Rear Panel Features

The following illustration shows rear panel features on the Sun Blade X3-2B.

FIGURE 2 Rear Panel Features

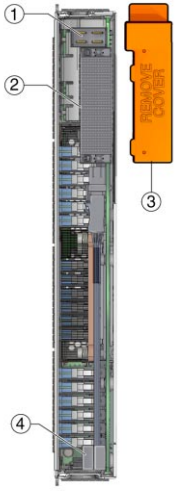


Figure Legend			
1	Power connector	2	I/O Connector

Figure Legend			
3	Rear cover (remove)	4	USB flash drives 2, 3

Power Connector and Cover

The internal power connector passes power from the Sun Blade chassis to the server module. The connector cover ships with a new server module. Remove this cover before installing the server module. For location, see Figure 2.

I/O Connector

The internal connector that passes control signals and data to and from the Sun Blade chassis midplane. For location, see Figure 2.

USB Flash Drives

Two internal USB flash drives, one,port 0 (P0), is reserved for the dedicated Oracle System Assistant drive. For the location of the USB drives, see Figure 2.

UEFI BIOS

The Sun Blade X3-2B contains a Unified Extensible Firmware Interface (UEFI)-compatible BIOS that provides more boot options and configuration capability for adapter cards than previous versions of the BIOS.

A legacy version of the BIOS is also included for use with software or adapters that do not have UEFI drivers. The legacy version is the default.

Refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide* for more information about UEFI BIOS.

Specifications

The following topics provide information about server module dimensions, and electrical and environmental specifications. Specifications for the Sun Blade 6000 modular system chassis are located in the *Site Planning Guide for Sun Blade 6000 and Sun Blade 6048 Modular Systems* at: `http://www.oracle.com/pls/topic/lookup?ctx=sb6000`

Server Module Dimensions

Specification	Value
Height	12.87 inches (327 mm)
Width	1.69 inches (43 mm)
Depth	19.6 inches (497 mm)
Weight	20 lbs (9 kg)

Electrical Specifications

Specification	Value
Voltage (nominal)	12V main from chassis backplane
	3.3V AUX from chassis backplane
Power (maximum)	604W (maximum operational)

Note – You can also manage chassis and server module power using Oracle ILOM. For more information, refer to the Oracle ILOM documentation at:

`http://www.oracle.com/pls/topic/lookup?ctx=ilom31`

Environmental Specifications

Specification	Value
Temperature (operating)	41 to 90° F
	5 to 32° C
Temperature (storage)	–40 to 158° F
	–40 to 70° C
Humidity	10 to 90% non-condensing
Operating altitude	Up to 9,840 feet (3000 meters). Maximum ambient temperature is derated by 1° C per 300 m above 900 m.[1])

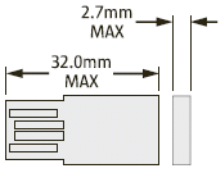
[1] Except in China, where regulations may limit installations to a maximum altitude of 2000 meters.

Internal USB Port

The server module has two internal USB ports.

One USB port might be preinstalled with a USB drive containing Oracle System Assistant. Refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide* for more information about Oracle System Assistant.

A USB flash drive with a standard USB 2.0 interface can be obtained from third-party sources. The USB flash drive must be no larger than 2.7 mm wide and 32.0 mm long, as shown in this illustration:



Caution – Using a larger USB device could damage the USB port.

Related Information

- "About the Installation Procedure" on page 11
- "Server Features" on page 13
- "Server Module Front Panel and Indicators" on page 15

Installing the Server Module

This section describes the tasks related to installing the server module into a Sun Blade 6000 chassis.

Task	Link
Prepare to install the server module.	"Preparing to Install the Server Module" on page 23
Install the server module.	"Install Your Server Module" on page 27

Preparing to Install the Server Module

Review the information in the following table before installing the server module.

Task	Link
Inventory the server module ship kit.	"Shipping Inventory List" on page 23
Review ESD and safety precautions.	"ESD and Safety Precautions" on page 24
Install additional components.	"Additional Components" on page 25
Prepare the chassis.	"Prepare the Chassis" on page 26

Shipping Inventory List

Standard configurations for the server module are assembled at the factory and shipped ready for installation in a Sun Blade 6000 series chassis.

Standard server components found in the packing carton include:

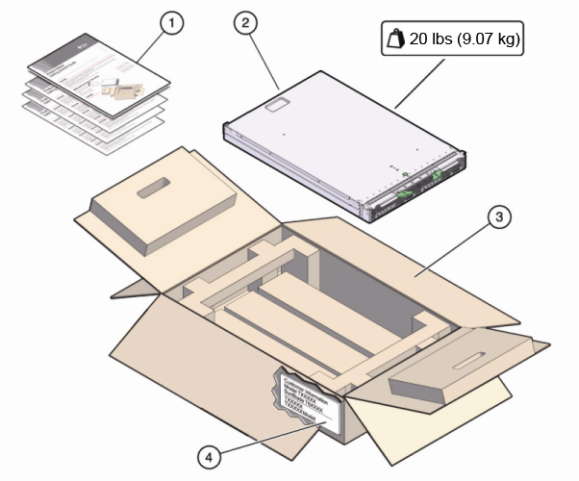


Figure Number	Description
1	Documentation
2	Server module
3	Box
4	Customer Information Sheet

Related Information

- “Locating the System Serial Number” on page 101
- “Additional Components” on page 25

ESD and Safety Precautions

Electronic equipment is susceptible to damage by static electricity. Use a grounded antistatic wriststrap, footstrap, or equivalent safety equipment to prevent ESD when you install or service the server.

Caution – System damage possible – Take the following ESD precautions to protect electronic components from electrostatic damage, which can permanently disable the system or require repair by service technicians.

ESD precautions:

- Place components on an antistatic surface, such as an antistatic discharge mat, an antistatic bag, or a disposable antistatic mat.
- Wear an antistatic grounding strap connected to a metal surface on the chassis when you work on system components.

Read safety information in the *Sun Blade X3-2B Safety and Compliance Guide* before installing the server module.

Note – This server is fully compliant with the Reduction of Hazardous Substances (RoHS) Directive.

Related Information

- "Additional Components" on page 25
- "Install Your Server Module" on page 27

Additional Components

Optional server module components that you purchase independent of the standard configuration are shipped separately and, in most cases, should be installed before you install the server module into the chassis.

The following optional server module components can be ordered and purchased separately:

- CPU assembly options
- DDR3 DIMM memory kits
- Hard drives
- Solid state drives (SSDs)
- USB drives
- Fabric expansion modules (FEMs)
- RAID expansion modules (REMs)
- Multi port (or dongle) cable
- Software media

  For information about ordering software media, see "Getting Server Firmware and Software" on page 103.

Supported components and their part numbers are subject to change over time and without notice. For the most up-to-date list, go to `https://support.oracle.com/handbook_private/`.

Note – This site requires an Oracle web account to access.

Click the name and model of your server. On the product page that opens for the server, click Full Components List for a list of components.

Refer to the service label on the top cover or the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Service Manual* component installation instructions.

Related Information

- "ESD and Safety Precautions" on page 24
- "Install Your Server Module" on page 27

Prepare the Chassis

Ensure that the Sun Blade 6000 modular system chassis in which you will install the server module is running with supported hardware and firmware and has no faults. Check the following:

✓ The chassis midplane supports PCIe 2.0 (standard with model A90-B or A90-D). For the latest information about how to determine your midplane version, refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes*.

✓ The chassis monitoring module (CMM) has the minimum firmware version that corresponds with the chassis model as follows:

- A90–B: CMM ILOM 3.0.12.11b (software release 3.3.3)
- A90–D: CMM ILOM 3.1 (software release 4.2)

✓ All required power and data cables to the chassis are attached.

✓ The network express modules (NEMs) that are supported for use with your server module have been installed in the chassis and are operating without faults. For more information about supported NEMs, refer to *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes*.

For information about installing chassis components, attaching cables to the chassis, and powering on the chassis, refer to the Sun Blade 6000 modular system chassis documentation at:
`http://www.oracle.com/pls/topic/lookup?ctx=sb6000`

Related Information

- "Install Your Server Module" on page 27

▼ Install Your Server Module

Before You Begin Perform all steps and fulfill all requirements in "Preparing to Install the Server Module" on page 23.

1. **Locate an available blade slot in the chassis, and remove the slot filler panel.**

   Pinch together the ends of the ejector arm handle to unlock it, rotate the lever out to the open position, and eject the filler panel.

   Keep the filler panel for later use.

2. **Remove the rear cover from the blade midplane connector.**

   See "Rear Panel Features" on page 18 for the location of the rear cover.

Caution – Drop hazard - Server modules can weigh up to 22 lbs (10 kg). Use two hands to install or remove the server module from the chassis.

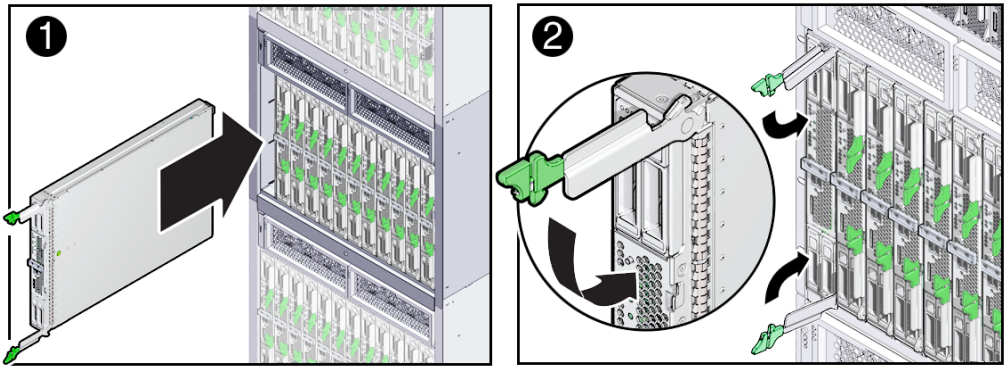
3. **Open both of the server module ejector levers and position the server module vertically so that the ejectors are on the right.**

4. **Install the server as follows:**

   a. **Push the server module into the slot until the server module stops and is flush with the chassis (see 1).**

   b. **Lock the server module into the chassis. Rotate the top ejector down while rotating the bottom ejector up until they both latch into place (see 2).**

      The server module is now locked in the chassis.



5 Verify that the server module LEDs illuminate properly.

After you install a server module into a powered-on chassis, the server module SP automatically boots using standby power from the chassis power supplies. The server module front panel indicators illuminate as follows:

- After you plug in the server module, all four server module LEDs blink three times. This indicates that the blade has been powered on and the SP boot process has begun.
- The green OK/Power LED blinks rapidly. This indicates that the SP is booting (0.125 seconds on, 0.125 seconds off).
- After the SP completes its boot cycle, the green OK/Power LED blinks briefly once every 3 seconds indicating that the server module is in standby power mode.

Tip – For front panel LED information, see "Server Module Front Panel and Indicators" on page 15. For additional information about server module indicators, server module removal, power procedures, and front panel cable connections, refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Service Manual*.

Next Steps

- "Cabling the Server Module" on page 29
- "Setting Up Software and Firmware" on page 57
- "Connecting to Oracle ILOM" on page 35

Cabling the Server Module

The cabling options that you choose depend on how you want to set up your server module and which additional modules are installed in the chassis.

Note – The procedures in this section do not cover cabling of PCIe ExpressModules (PCIe EMs) or network express modules (NEMs) installed in the chassis and connected to the server module through the chassis midplane. Refer to the chassis, PCIe EM, or NEM documentation for instructions on cabling these modules.

The following table describes how to determine which cabling procedures to follow.

If you want to...	Links
Set up your server locally with Oracle System Assistant.	"Attach the 3-Cable Dongle to the Server Module" on page 30 "Attach a VGA Monitor to the Dongle Video Connector" on page 31 "Attach a Keyboard and Mouse to the Dongle or Server Module" on page 32
Set up or manage your server with Oracle ILOM using a serial (local) connection.	"Attach the 3-Cable Dongle to the Server Module" on page 30 "Attach a Serial Device to the Dongle" on page 33
Set up or manage your server using Oracle ILOM with a network (remote) connection.	"Cable the CMM NET MGT Port" on page 34

If you are not sure how you want to connect to Oracle ILOM, see "Connecting to Oracle ILOM" on page 35.

▼ Attach the 3-Cable Dongle to the Server Module

Your system chassis is shipped with the following dongle cable that enables you to connect communication devices directly to the Sun Blade X3-2B:

3-Cable Dongle II (part number X4622A-N)

Note – Some documentation might also refer to the 3-Cable Dongle as a multi-port cable.

This cable provides a VGA connector, RJ-45 serial connector, and one dual USB connector.

Note – The cable is typically provided with each Sun Blade 6000 series chassis. Additional cables can be ordered.

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1 Attach the dongle universal connector port (UCP) connector to the UCP port on the server module.

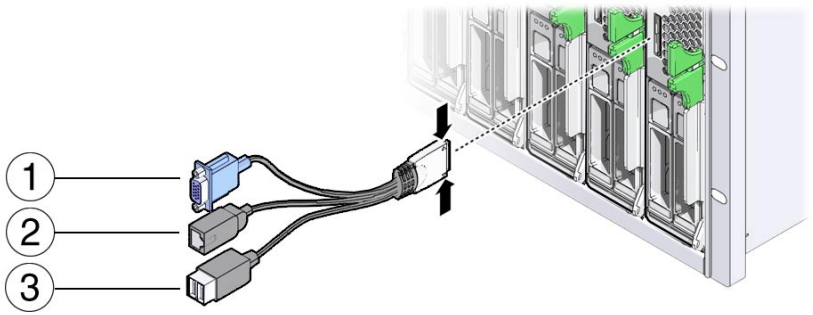


Figure Legend	
1	VGA video connector
2	RJ45 serial connector
3	2 USB connectors

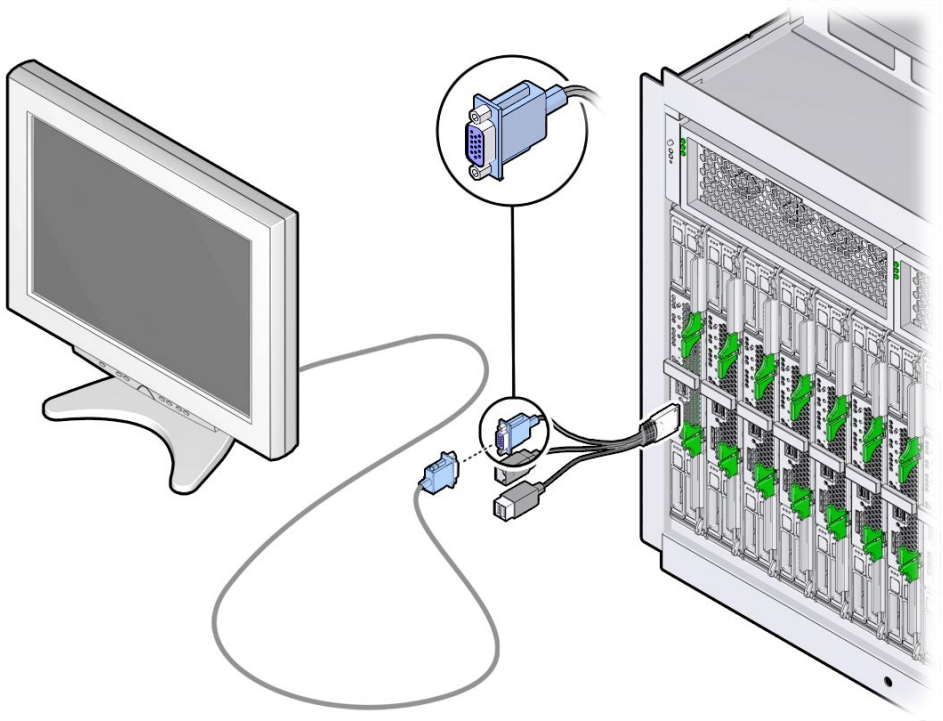
2 Attach devices as needed to the dongle connectors as described in the following sections:

- "Attach a VGA Monitor to the Dongle Video Connector" on page 31
- "Attach a Keyboard and Mouse to the Dongle or Server Module" on page 32
- "Attach a Serial Device to the Dongle" on page 33

Caution – Cable or connector damage. Use the dongle cable for configuration and service purposes. Disconnect the dongle cable from the server module after the configuration or service operation is complete to avoid damaging the cable or connector.

▼ Attach a VGA Monitor to the Dongle Video Connector

1. **Insert the dongle cable into the universal connector port (UCP) on the server module front panel. See "Attach the 3-Cable Dongle to the Server Module" on page 30.**
2. **Attach the VGA monitor cable to the video connector on the dongle.**



More Information

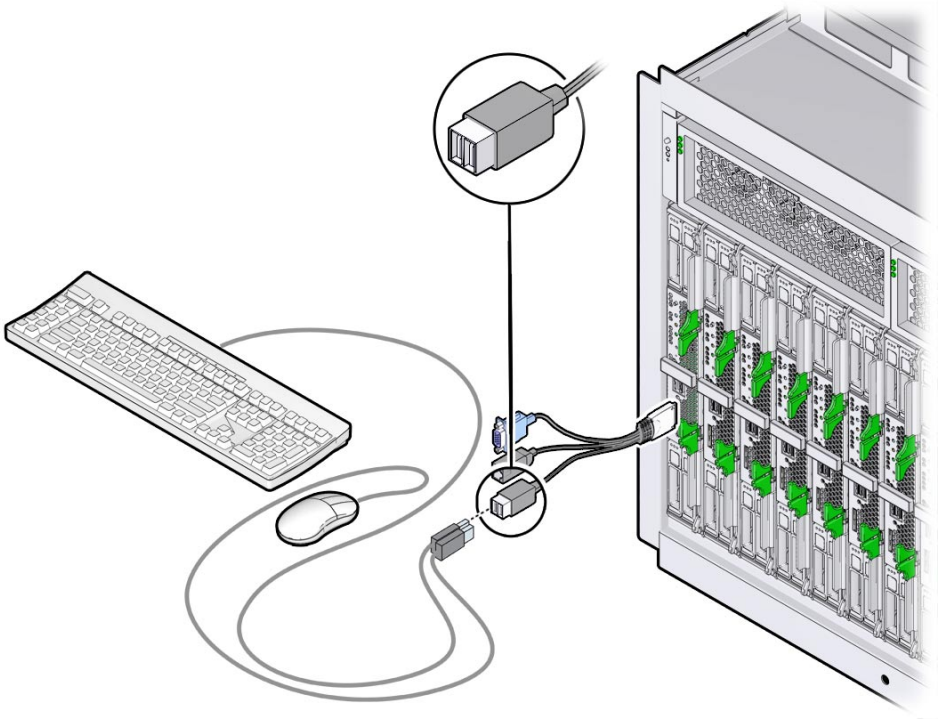
Related Information

- "Attach the 3-Cable Dongle to the Server Module" on page 30
- "Attach a Keyboard and Mouse to the Dongle or Server Module" on page 32
- "Attach a Serial Device to the Dongle" on page 33

▼ Attach a Keyboard and Mouse to the Dongle or Server Module

1. **Insert the dongle cable into the universal connector port (UCP) on the server module front panel. See "Attach the 3-Cable Dongle to the Server Module" on page 30.**

2. **Attach a keyboard and mouse to the USB connectors on the dongle or the server module front panel.**



More Information

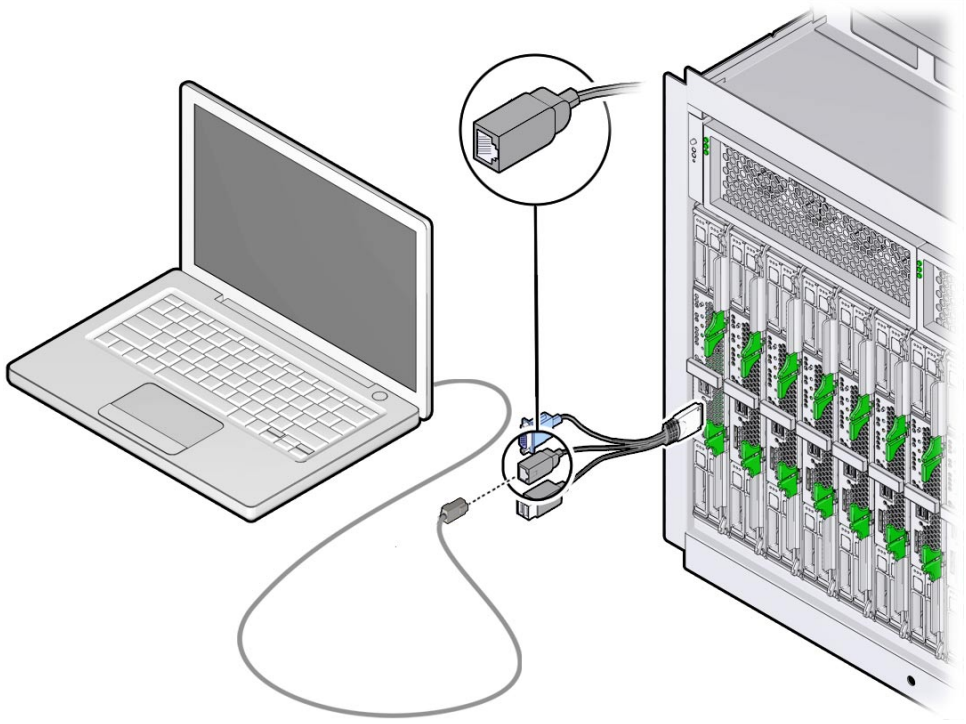
Related Information

- "Attach the 3-Cable Dongle to the Server Module" on page 30
- "Attach a VGA Monitor to the Dongle Video Connector" on page 31
- "Attach a Serial Device to the Dongle" on page 33

▼ Attach a Serial Device to the Dongle

1. **Insert the dongle cable into the universal connector port (UCP) on the server module front panel. See "Attach the 3-Cable Dongle to the Server Module" on page 30.**

2. **Attach a terminal device or terminal emulator cable to the SER MGT port on the dongle.**

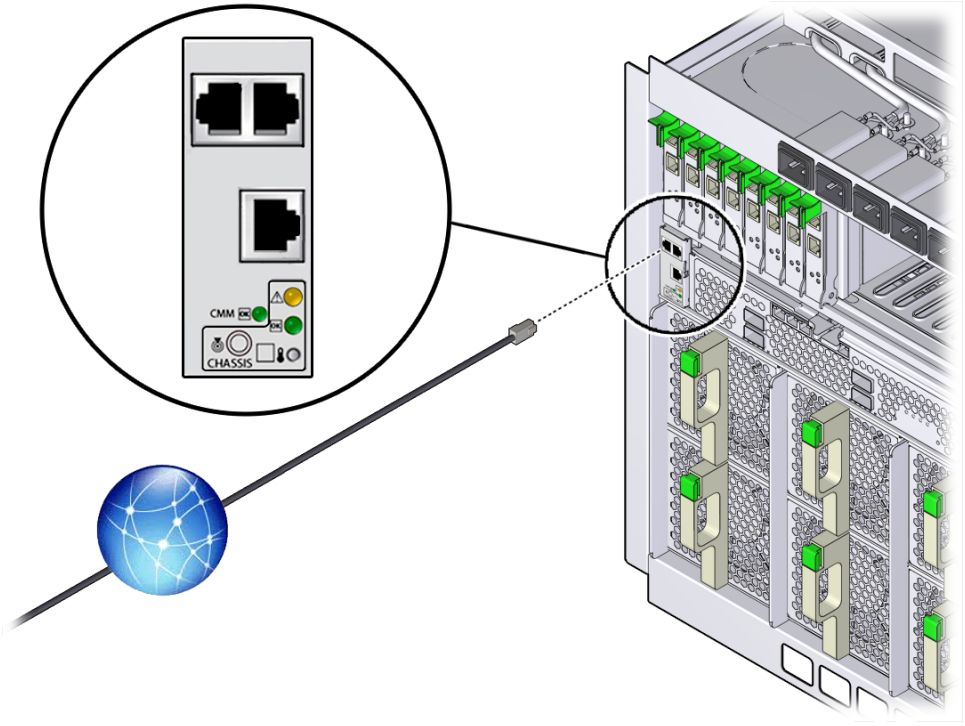


More Information Related Information

- "Attach the 3-Cable Dongle to the Server Module" on page 30
- "Attach a VGA Monitor to the Dongle Video Connector" on page 31
- "Attach a Keyboard and Mouse to the Dongle or Server Module" on page 32

▼ Cable the CMM NET MGT Port

1. **Locate the NET MGT 0 port on the chassis CMM.**
2. **Attach an Ethernet cable that is connected to the Internet to the CMM NET MGT 0 port.**



More Information Related Information

- "Connecting to Oracle ILOM" on page 35

Connecting to Oracle ILOM

This section describes how to access the Oracle Integrated Lights Out Manager (ILOM) and set up the SP network configuration for your server module.

The following table provides information about Oracle ILOM setup tasks.

Task	Links
Learn about using Oracle ILOM with your server module.	"Oracle ILOM Overview" on page 35
Log in to Oracle ILOM CMM and obtain the IP address of the SP.	"Determining the Oracle ILOM SP IP Address" on page 42
Log in to Oracle ILOM.	"Logging In to Server Module SP Oracle ILOM " on page 48
Optional: Access the host console through Oracle ILOM.	"Accessing the Server Module Console Through Oracle ILOM" on page 52

Oracle ILOM Overview

Your server supports Oracle Integrated Lights Out Manager (ILOM) version 3.1 or later. Oracle ILOM allows you to manage the Sun Blade X3-2B. You can do this using either the chassis CMM or the server module's SP.

The following sections describe CMM and server management Oracle ILOM:

- "About Oracle ILOM Password Security" on page 35
- "Change Default Oracle ILOM Password" on page 36
- "About Oracle ILOM CMM" on page 37
- "About Server Module SP Oracle ILOM" on page 38
- "Connectivity Options" on page 40

About Oracle ILOM Password Security

To enable first-time login and access to Oracle ILOM, a default Administrator account and its password are provided with the system. To build a secure environment and enforce user

authentication and authorization in Oracle ILOM, you must change the default password (changeme) for the default Administrator account (root) after your initial login to Oracle ILOM. If this default Administrator account has since been changed, contact your system administrator for an Oracle ILOM user account with Administrator privileges.

To change the Oracle ILOM default password, see "Change Default Oracle ILOM Password" on page 36.

Related Information

- "About Oracle ILOM CMM" on page 37
- "About Server Module SP Oracle ILOM" on page 38
- "Connectivity Options" on page 40

▼ Change Default Oracle ILOM Password

1. **Log in to Oracle ILOM as a user with administrator privileges.**
2. **In the left navigation panel, click ILOM Administration.**
3. **From the submenu list, click User Management.**

   The User Management screen appears in the main window section.
4. **In the User Management window, click the User Accounts tab.**

   The User Accounts screen appears.
5. **In the Users section, highlight the root user row.**
6. **Click Edit.**

   A popup window appears with the Change Password screen.
7. **Change the password.**

   The password is case sensitive and must be 8 to 16 characters. Use any characters except a colon and space.

   Note – Roles *cannot* be modified for the special user 'root'.

   ---
8. **Click Save.**

About Oracle ILOM CMM

The Sun Blade 6000 modular system chassis has its own SP, called a chassis monitoring module (CMM). Oracle ILOM CMM provides an Ethernet connection through the chassis to the server module SP.

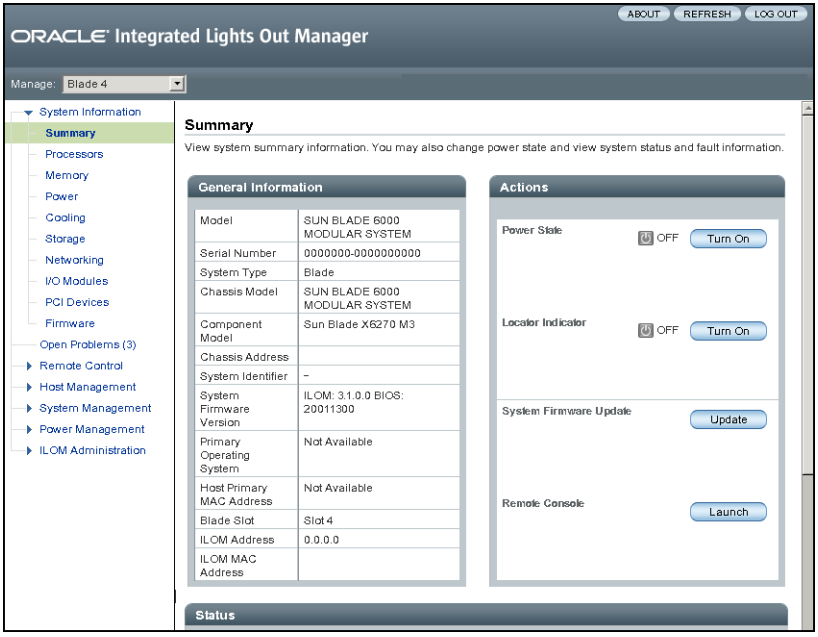
The minimum Oracle ILOM CMM firmware version corresponds to the chassis model as follows:

- A90-B: CMM ILOM 3.0.12.11b (software release 3.3.3)
- A90-D: CMM ILOM 3.1 (software release 4.2)

For information about how to identify the chassis, refer to *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes*.

Oracle ILOM CMM software allows you to monitor and manage all of the chassis components, including installed server and storage blades.

The following illustration shows an example of the web interface when you are logged in to the Oracle ILOM CMM.



The following is an example of using the `show` command in the Oracle ILOM CMM command-line interface (CLI) to display information about the server module. In this example, the server module is installed in chassis blade slot 1.

Note – The /CH target is hidden in the CMM CLI by default. In order to see this target and its sub-targets, use the following command: `/CMM/cli legacy_targets=enable`

```
-> show /CH/BL1

 /CH/BL1
    Targets:
        HOST
        System
        SP

    Properties:

    Commands:
        cd
        show
```

Refer to the system chassis documentation for more information at:

`http://www.oracle.com/pls/topic/lookup?ctx=sb6000`

Related Information

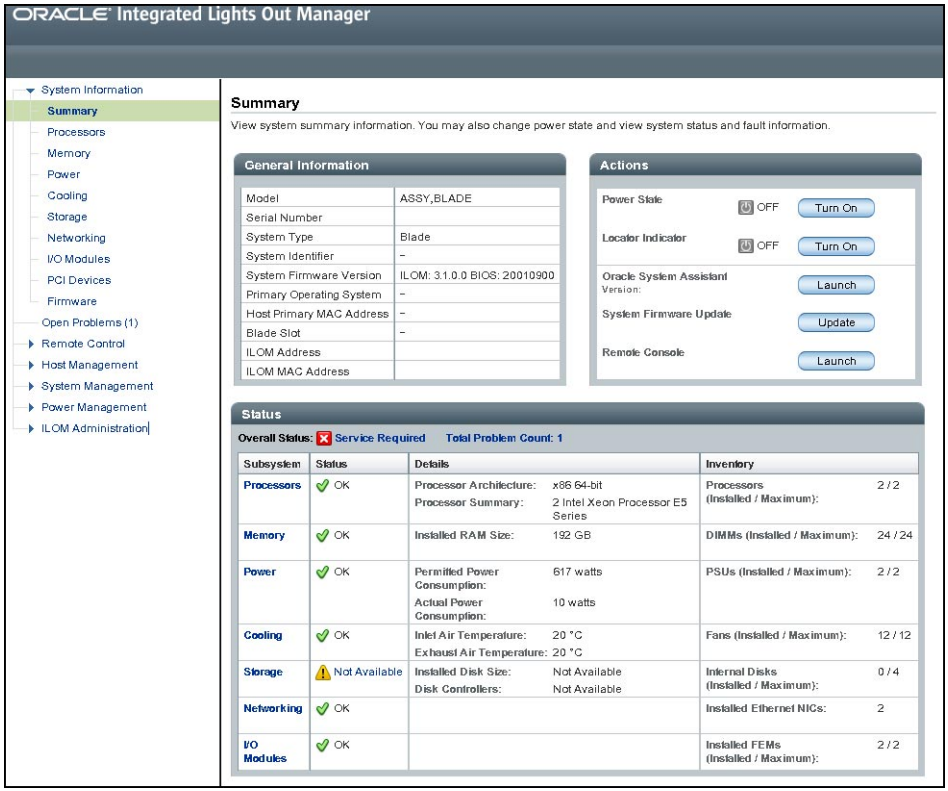
- "Determining the Oracle ILOM SP IP Address" on page 42
- "Logging In to Server Module SP Oracle ILOM " on page 48

About Server Module SP Oracle ILOM

With Oracle ILOM software, you can monitor and manage server module components, using the server module SP, including:

- Configuring network information
- Viewing and editing hardware configurations for the SP
- Monitoring vital system information and viewing logged events
- Managing Oracle ILOM user accounts

The following illustration shows an example of the web interface when you are logged in to the Oracle ILOM SP.



The following is an example of using the `show` command in the server module Oracle ILOM command-line interface (CLI) to display information about the server and its chassis connections.

```
-> show /System
 /System
    Targets:
        Cooling
        Processors
        Memory
        Power
        Storage
        PCI_Devices
        Firmware
        Networking
        Open_Problems (1)
        BIOS
        IO_Modules
        SP

    Properties:
        health = Service Required
        health_details = /SYS (Motherboard) is faulty. Type 'show
```

```
                    /System/Open_Problems' for details.
        open_problems_count = 1
        power_state = Off
        locator_indicator = Off
        serial_number = 489089M-1122PR0071
        model = ASSY,BLADE,SUN BLADE X6270 M3
        type = Blade
        system_fw_version = ILOM: 3.1.0.0  BIOS: 20010900
        host_primary_ip_address = (none)
        host_primary_mac_address = (none)
        system_identifier = (none)
        primary_operating_system = (none)
        actual_power_consumption = 10 watts
        ilom_address = --.---.---.---
        ilom_mac_address = 00:00:00:00:00:00
        action = (none)

    Commands:
        cd
        reset
        show
        start
        stop
```

For detailed information, refer to:

Oracle ILOM 3.1 documentation (`http://www.oracle.com/technetwork/documentation/sys-mgmt-networking-190072.html#ilom`)

Related Information

- "About Oracle ILOM Password Security" on page 35
- "Change Default Oracle ILOM Password" on page 36
- "About Oracle ILOM CMM" on page 37
- "Connectivity Options" on page 40

Connectivity Options

This section describes the ways you can connect to Oracle ILOM to perform administrative tasks.

FIGURE 3 Connectivity Options

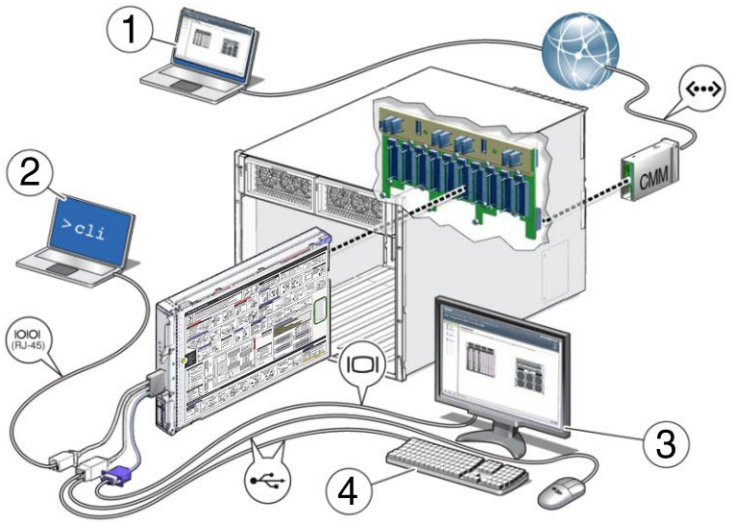


Figure Legend	
1	(Ethernet) CMM NET MGT port
2	(Serial connection) Server module SP UCP port (dongle required)
3, 4	(Local KVM connection) Server module SP UCP port (dongle required)

(Ethernet) CMM NET MGT port

The CMM NET MGT port connects to your network. From your network, log in to Oracle ILOM on the CMM using the IP address of the CMM. Once logged in, navigate to an individual server module SP to administer that server module. You can use the CMM CLI or the web interface.

(Serial connection) Server module SP UCP port (dongle required)

A terminal device connects to the the multi-port dongle cable which is connected to the UCP on the front of the server module. You can log in to Oracle ILOM on the server module SP using the CLI.

(Local KVM connection) Server module SP UCP port (dongle required)

A USB keyboard and mouse connect to the front panel USB ports on the front of the server module or to the USB ports on the the multi-port dongle cable which is connected to the UCP on the front of the server module, and a VGA monitor connects to the 15-pin connector on the the multi-port dongle cable. You can log in to Oracle ILOM on the server module SP using the SP CLI or the web interface.

Related Information

- “About Oracle ILOM Password Security” on page 35
- “Change Default Oracle ILOM Password” on page 36
- “About Oracle ILOM CMM” on page 37
- “Connectivity Options” on page 40

Determining the Oracle ILOM SP IP Address

This section describes ways to obtain a server module's Oracle ILOM SP IP address. To access the server module Oracle ILOM over the network directly, you need the server module SP IP address for the server module.

Note – You do not need the SP IP address, if you plan to log in only through the server module serial connection. See “Log In to Oracle ILOM SP CLI (Serial Connection)” on page 51.

Choose a method of obtaining a server module SP IP address. as described in the following sections:

- “Display the Oracle ILOM IP Address (Web)” on page 42
- “Display the Oracle ILOM IP Address (CLI)” on page 46

▼ Display the Oracle ILOM IP Address (Web)

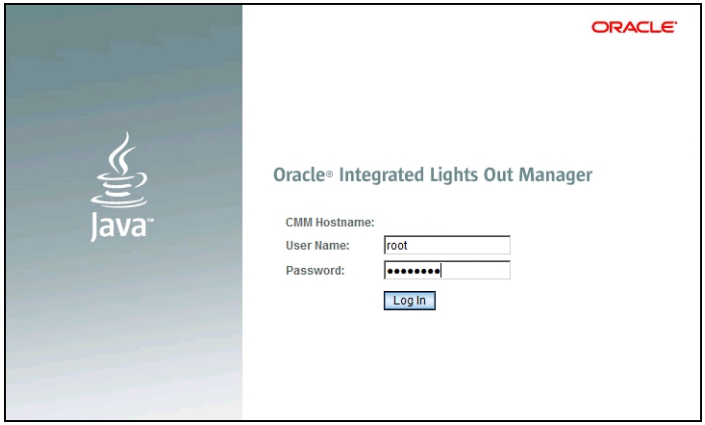
You need to use the chassis Oracle ILOM CMM to display the network configuration for the Oracle ILOM SP of the server module, including its IP address.

This procedure also verifies that a server module's Oracle ILOM is working correctly and that you can access it through the Oracle ILOM CMM.

Before You Begin The chassis CMM must already be connected to the network using its Ethernet management port, configured and operational. If it is not, refer to your chassis documentation before proceeding.

1 **To log in, type the IP address of the Oracle ILOM CMM in your web browser address field.**

The web interface Login page appears.



2 **Type your user name and password.**

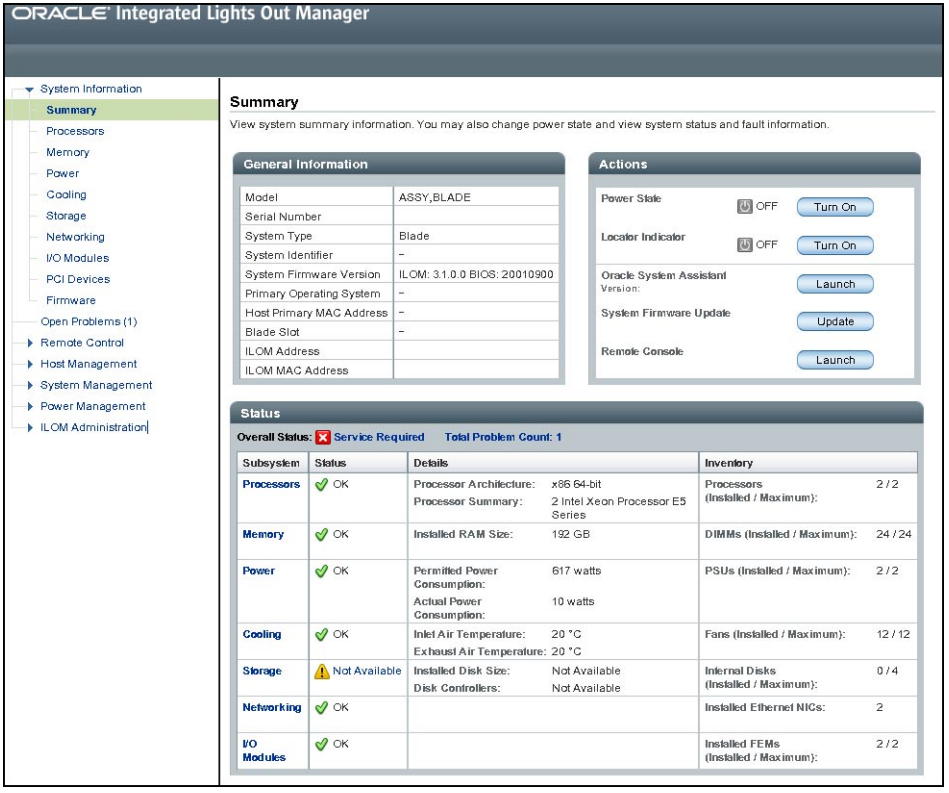
For default account login information, see"About Oracle ILOM Password Security" on page 35.

Tip – If the default administrator account has been changed, contact your system administrator for an Oracle ILOM user account with administrator privileges.

---

3 Click Log In.

The System Summary page appears.

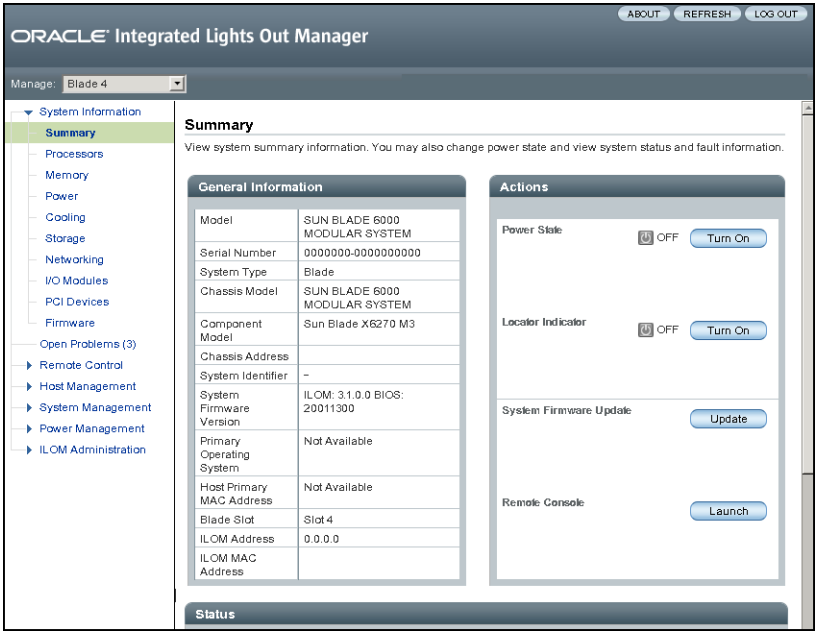


4 Click Chassis View in the upper left pane.

The Chassis View page appears.

5 **Click the image of the blade in the chassis that you want to view.**

The blade Summary page appears.



The Oracle ILOM SP address is in the General Information table, labeled ILOM Address.

6 **Make a note of the server module's SP IP address.**

You need to know the IP address of the server module SP to log in directly to the server module Oracle ILOM over the network. The IP address of the server module SP is configured using DHCP.

Next Steps

- "Logging In to Server Module SP Oracle ILOM " on page 48

▼ Display the Oracle ILOM IP Address (CLI)

You need to use the chassis Oracle ILOM CMM to display the network configuration for the Oracle ILOM SP of each server module, including its IP address.

This procedure also verifies that a server module's Oracle ILOM is working correctly and that you can access it through the Oracle ILOM CMM.

Before You Begin The chassis CMM must already be connected to the network using its Ethernet management port, configured and operational. If it is not, refer to your chassis documentation before proceeding.

1 **Open a terminal window.**

2 **Log in to the chassis Oracle ILOM CMM using a secure shell (SSH) session.**

For example, type:

$ **ssh** *username*@*CMMIPaddress*

where *username* is a user account with administrator privileges and the *CMMIPaddress* is the IP address of the Oracle ILOM CMM.

For default account login information, see"About Oracle ILOM Password Security" on page 35.

Tip – If the default administrator account has been changed, contact your system administrator for an Oracle ILOM user account with administrator privileges.

Once you are successfully logged in to the Oracle ILOM CMM, you will see the Oracle ILOM prompt (->).

3 **Type:**

-> **show /CH/BL0/SP/network**

where BL0 represents a Sun Blade X3-2B slot 0 in the chassis.

The Oracle ILOM CMM displays information about the server module, including its IP address and MAC address.

The following example shows blade 0 server module information:

```
-> show /CH/BL0/SP/network
   /CH/BL0/SP/network
    Targets:
        interconnect
        ipv6
        test

    Properties:
        commitpending = (Cannot show property)
        dhcp_server_ip = --.---.---.--
        ipaddress = --.---.---.--
        ipdiscovery = dhcp
        ipgateway = --.---.---.--
        ipnetmask = 255.255.255.0
        macaddress = 00:00:00:00:00:00
        managementport = /SYS/SP/NET0
        outofbandmacaddress = 00:00:00:00:00:00
        pendingipaddress = --.---.---.--
        pendingipdiscovery = dhcp
        pendingipgateway = --.---.---.--
```

```
            pendingipnetmask = 255.255.255.0
            pendingmanagementport = /SYS/SP/NET0
            sidebandmacaddress = 00:00:00:00:00:00
            state = enabled

        Commands:
            cd
            set
            show
->
```

4 **Make a note of the network configurations, including the server module's SP IP address.**

You need to know the IP address of the SP to log in directly to the server module Oracle ILOM.

By default, the IP address of the server module SP is configured using DHCP. If you want to set a static IP address, refer to the Oracle ILOM 3.1 documentation.

5 **To log out of Oracle ILOM CMM, enter the command:**

```
-> exit
```

Next Steps

- "Logging In to Server Module SP Oracle ILOM " on page 48

Logging In to Server Module SP Oracle ILOM

This section describes several ways to access a server module's SP Oracle ILOM. They are described in the following sections:

- "Log In to the Oracle ILOM SP Web Interface (Ethernet Connection)" on page 48
- "Log In to the Oracle ILOM SP CLI (Ethernet Connection)" on page 50
- "Log In to Oracle ILOM SP CLI (Serial Connection)" on page 51

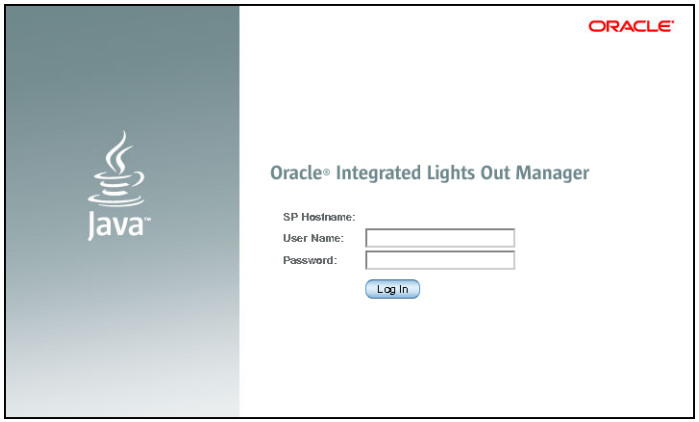
▼ Log In to the Oracle ILOM SP Web Interface (Ethernet Connection)

Before You Begin

- To improve response times, disable the web browser proxy server (if used).
- If you do not know the SP IP address for the server module, see "Display the Oracle ILOM IP Address (Web)" on page 42 for information about how to find it using the Oracle ILOM CMM.

1 **To log in, type the IP address of server module's Oracle ILOM in your web browser.**

The web interface Login page appears.



2 **Type your user name and password.**

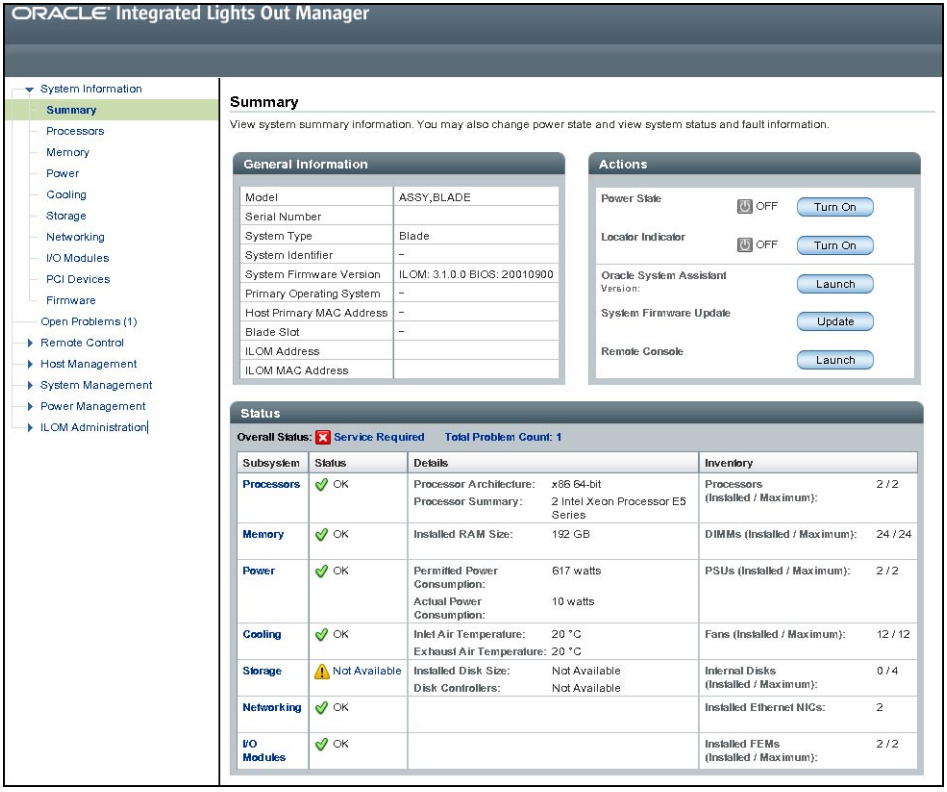
For default account login information, see"About Oracle ILOM Password Security" on page 35.

Tip – If the default administrator account has been changed, contact your system administrator for an Oracle ILOM user account with administrator privileges.

---

3 **Click Log In.**

The Summary page appears.



You are now logged in to the server module's Oracle ILOM.

Refer to the Oracle ILOM 3.1 documentation library for more information about how to use the Oracle ILOM web interface.

Next Steps

- "Accessing the Server Module Console Through Oracle ILOM" on page 52
- "Configuring the Preinstalled Oracle Solaris OS" on page 73
- "Configuring Preinstalled Oracle VM Software" on page 81

▼ Log In to the Oracle ILOM SP CLI (Ethernet Connection)

Before You Begin If you do not know the SP IP address for the server module, see "Display the Oracle ILOM IP Address (CLI)" on page 46 for information about how to find it using the Oracle ILOM CMM.

1 **Open a terminal window.**

2 **Log in to the server module Oracle ILOM SP using a secure shell (SSH) session.**

For example, type:

```
$ ssh username@SPIPaddress
```

where *username* is a user account with administrator privileges, and the *SPIPaddress* is the IP address of the server module SP.

For default account login information, see"About Oracle ILOM Password Security" on page 35.

Tip – If the default administrator account has been changed, contact your system administrator for an Oracle ILOM user account with administrator privileges.

Once you are successfully logged in to the server module Oracle ILOM, the Oracle ILOM prompt (->) appears.

Refer to the Oracle ILOM 3.1 documentation for more information about how to use the CLI interface to configure Oracle ILOM.

Next Steps

- "Accessing the Server Module Console Through Oracle ILOM" on page 52
- "Configuring the Preinstalled Oracle Solaris OS" on page 73
- "Configuring Preinstalled Oracle VM Software" on page 81

▼ Log In to Oracle ILOM SP CLI (Serial Connection)

This procedure requires that you are physically at the server module. You do not need an SP IP address to log in to Oracle ILOM using a serial connection.

Before You Begin You need a multi-port dongle cable. The cable provides a direct method for connecting to a node host or SP console.

1 **Cable the server module using the procedures described in the following sections:**

a. **"Attach the 3-Cable Dongle to the Server Module" on page 30**

b. **"Attach a Serial Device to the Dongle" on page 33**

2 **Ensure that the following serial communication settings are configured at your terminal:**

- 8N1: eight data bits, no parity, one stop bit
- 9600 baud (default—do not change)
- Disable hardware flow control (CTS/RTS)

3 **Press Enter to establish a serial console connection to the server's Oracle ILOM.**

A login prompt for Oracle ILOM appears. For example:

`SP-`*`productserialnumber`* `login:`

4 **Log in to the Oracle ILOM CLI using an administrator account. Enter a user name and password for the administrator account.**

For default account login information, see"About Oracle ILOM Password Security" on page 35.

Tip – If the default administrator account has been changed, contact your system administrator for an Oracle ILOM user account with administrator privileges.

The Oracle ILOM CLI prompt (`->`) appears.

You are now logged in to the server module Oracle ILOM.

Refer to the Oracle ILOM 3.1 documentation library for more information about how to use the CLI interface to configure the Oracle ILOM.

Next Steps

- "Accessing the Server Module Console Through Oracle ILOM" on page 52

Accessing the Server Module Console Through Oracle ILOM

Connecting to the server module host console through Oracle ILOM allows you to perform actions as if you were at the host. This can be useful when you need remote access to the server's BIOS setup program or when you configure or install an OS or other software on the server.

Choose one of the following methods:

- Use the serial console through the Oracle ILOM command-line interface. See "Connect to the Server Module Serial Console (CLI)" on page 52.
- Use the Remote Console feature of the Oracle ILOM web interface. See "Connect to the Server Module (Remote Console)" on page 53.

▼ Connect to the Server Module Serial Console (CLI)

1 **Log in to a server module's Oracle ILOM using an account with administrator privileges.**

Use one of the following previously described methods:

- Use the serial management port as described in "Log In to Oracle ILOM SP CLI (Serial Connection)" on page 51.
- Use a client system to establish an SSH session over the network. See "Log In to the Oracle ILOM SP CLI (Ethernet Connection)" on page 50.

2 **To access the host serial console, type:**

```
-> start /HOST/console
```

The serial console output appears on the screen.

Note – If the serial console is in use, stop the console session with the **`stop /HOST/console`** command followed by the **`start /HOST/console`** command.

---

3 **To return to the Oracle ILOM console, press Esc followed by the (character (Shift-9).**

Next Steps

- "Configuring the Preinstalled Oracle Solaris OS" on page 73
- "Configuring Preinstalled Oracle VM Software" on page 81

▼ Connect to the Server Module (Remote Console)

Before You Begin

For you to connect to the host console from a remote system, your remote system must meet the following requirements:

- An operating system such as Oracle Solaris, Linux, or Windows is installed.
- The system must be connected to a network that has access to the CMM Ethernet management port.
- Java Runtime Environment (JRE) 1.5 or later is installed. For CD-ROM redirection, 32-bit Java must be used.
- If the Remote Console system is running 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 Oracle ILOM SP are set up according to the instructions in the Oracle ILOM 3.1 documentation.

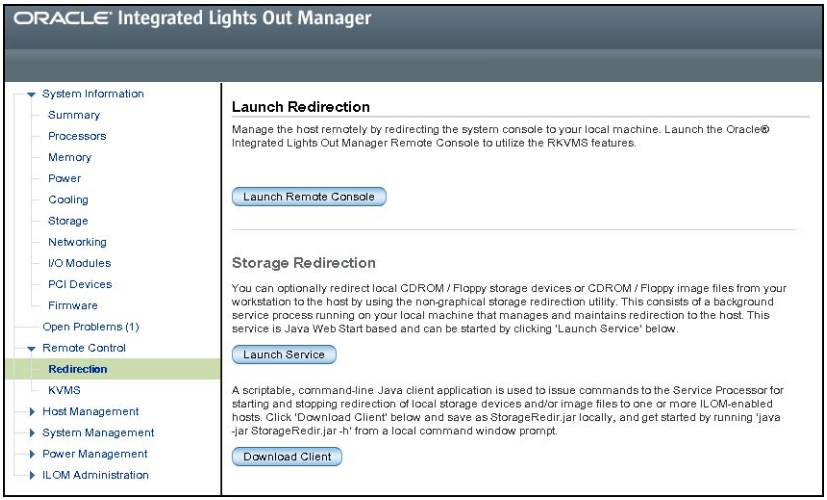
1 **Log in to a server module's Oracle ILOM from a web browser.**

See "Log In to the Oracle ILOM SP Web Interface (Ethernet Connection)" on page 48.

2 **Click Remote Control > Redirection.**

The Launch Redirection screen appears.

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

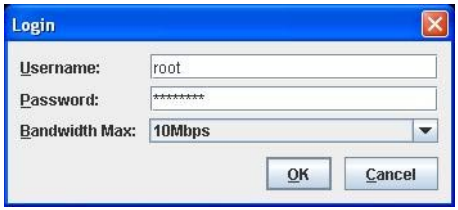


3 Click Launch Remote Console.

Note the following:

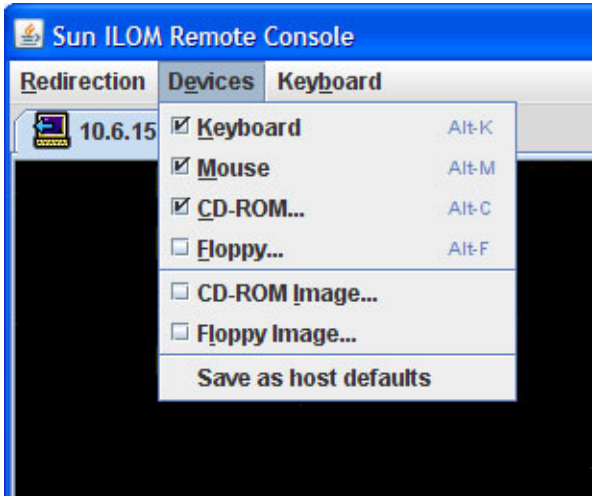
- When using a Windows system for Remote Console system redirection, a Hostname Mismatch warning dialog box might appear after you click Launch Remote Console. If it does, click the Yes button to clear it.

- A Remote Control login dialog box might appear. If it does, reenter your user name and password, and click OK.



The JavaRConsole screen appears.

4 **To redirect devices on your remote system to the host console, choose the appropriate items from the Devices menu.**



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

Note – Using either of the CD/DVD 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.

Next Steps

- "Accessing the Server Module Console Through Oracle ILOM" on page 52
- "Configuring the Preinstalled Oracle Solaris OS" on page 73
- "Configuring Preinstalled Oracle VM Software" on page 81

Setting Up Software and Firmware

Oracle System Assistant is the easiest method for setting up your system software and firmware. If Oracle System Assistant is not embedded in your server module, or if you prefer to use Oracle ILOM or Hardware Management Pack for system set up, refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide* for additional setup procedures.

This section covers the information about setting up software and firmware shown in the following table.

Task	Link
Launch Oracle System Assistant remotely (from Oracle ILOM) or locally.	"Accessing Oracle System Assistant" on page 57
Use Oracle System Assistant to perform common setup tasks.	"Set Up Software and Firmware (Oracle System Assistant)" on page 61
Learn about the options for configuring or installing an operating system and drivers.	"Setting Up an Operating System and Drivers" on page 62

Accessing Oracle System Assistant

Oracle System Assistant is a task-based server provisioning tool that allows you to perform initial server set-up and maintenance for Oracle x86 servers. Using Oracle System Assistant, you can install a supported Oracle VM, Linux, or Windows operating system, update your server to the latest platform software release, and configure server hardware.

The procedures in the following topics describe different ways to access Oracle System Assistant:

- "Launch Oracle System Assistant (Oracle ILOM)" on page 57
- "Launch Oracle System Assistant (Locally)" on page 60

▼ Launch Oracle System Assistant (Oracle ILOM)

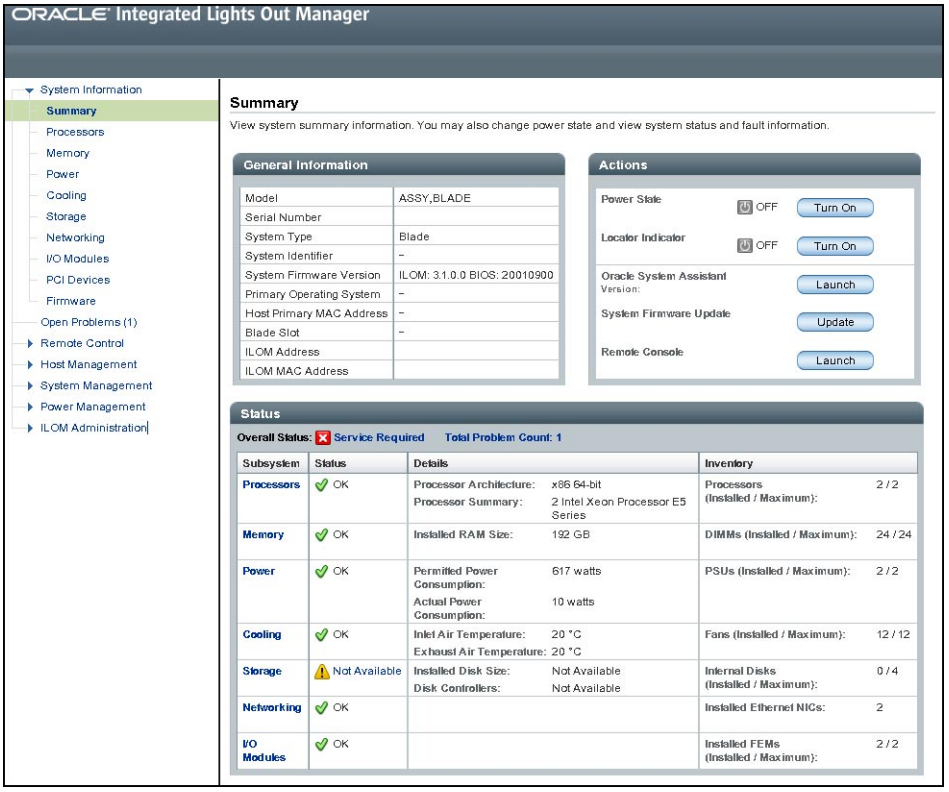
1 Ensure that the server is in standby power mode.

In server standby mode, the Power/OK LED blinks slowly.

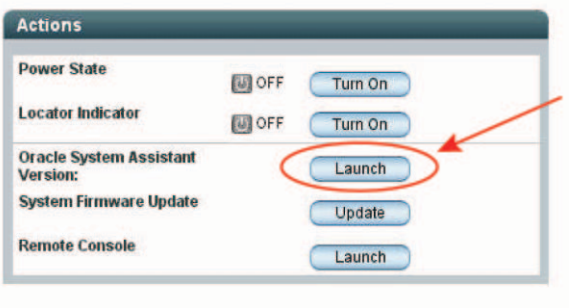
2 Log in to the server module SP Oracle ILOM web interface.

See "Log In to the Oracle ILOM SP Web Interface (Ethernet Connection)" on page 48.

The System Summary screen appears.



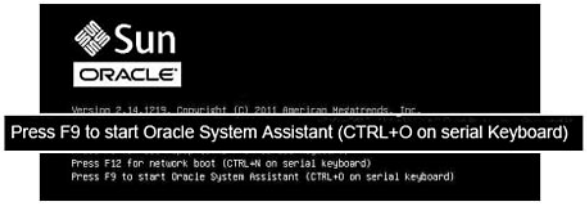
The Oracle System Assistant Launch button is in the Actions panel.



3 Click Launch.

4 **In the dialog box that asks if you want to run a JavaRConsole session, click Yes .**

The server module is powered on and the server boot screen appears in the console session window. A series of F-key prompts appear. To access Oracle System Assistant you need to press the F9 key.

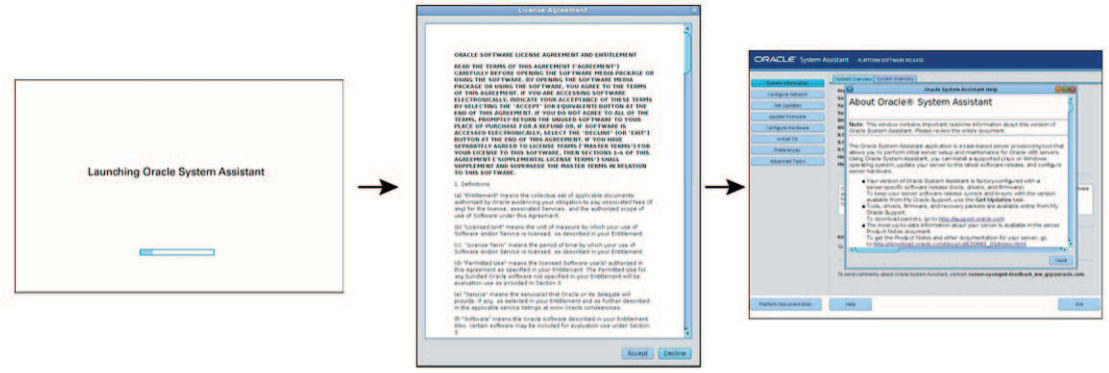


To troubleshoot Oracle System Assistant, refer to "Troubleshooting and Verifying Oracle System Assistant" in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

5 **When the prompt appears, press the F9 key to access Oracle System Assistant.**

Oracle System Assistant launches. the launch screen appears, then the System Overview home screen appears. If this is your first time launching Oracle System Assistant, the Software License Agreement (SLA) screen appears before the home screen. The SLA screen also appears after running the Get Updates task. You must accept the terms expressed in the SLA screen to use Oracle System Assistant.

The following illustration shows the Oracle System Assistant access screen sequence.



Next Steps

- "Set Up Software and Firmware (Oracle System Assistant)" on page 61

▼ Launch Oracle System Assistant (Locally)

Before You Begin To launch the Oracle System Assistant locally, you need:

- To be physically present at the server module front panel
- 3-cable dongle
- VGA monitor
- Keyboard and mouse

1. **Ensure that the server is in standby power mode.**

   In server standby mode, the Power/OK LED blinks slowly.

2. **Connect locally to the server module using the following procedures:**

   a. **"Attach the 3-Cable Dongle to the Server Module" on page 30**

   b. **"Attach a VGA Monitor to the Dongle Video Connector" on page 31**

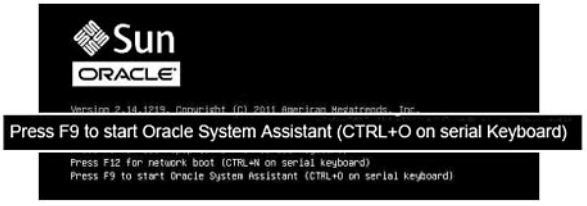
   c. **"Attach a Keyboard and Mouse to the Dongle or Server Module" on page 32**

3. **Press the front-panel Power button to power on the server to full power mode.**

   The server boots, and POST messages appear on the monitor.

   The server module is powered on and the server boot screen appears in the console session window. A series of F-key prompts appear. To access Oracle System Assistant you need to press the F9 key.

4. **When prompted, press the F9 key.**

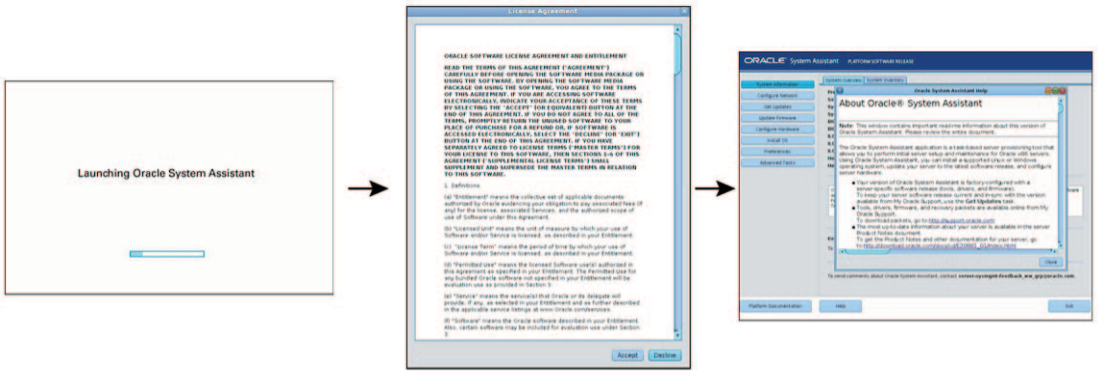


To troubleshoot Oracle System Assistant, refer to "Troubleshooting and Verifying Oracle System Assistant" in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

Oracle System Assistant launches. the launch screen appears, then the System Overview home screen appears. If this is your first time launching Oracle System Assistant, the Software License

Agreement (SLA) screen appears before the home screen. The SLA screen also appears after running the Get Updates task. You must accept the terms expressed in the SLA screen to use Oracle System Assistant.

The following illustration shows the Oracle System Assistant access screen sequence.



Next Steps

- "Set Up Software and Firmware (Oracle System Assistant)" on page 61

▼ Set Up Software and Firmware (Oracle System Assistant)

1 Launch the Oracle System Assistant using a procedure in one of the following topics:

- "Launch Oracle System Assistant (Oracle ILOM)" on page 57
- "Launch Oracle System Assistant (Locally)" on page 60

Oracle System Assistant boots, and the main screen appears.

2 Use Oracle System Assistant to perform the following tasks.

Refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide* or the embedded help on the Oracle System Assistant for more information about using Oracle System Assistant.

a. Set up the Oracle System Assistant network connection.

To set up the network connection, use the Network Configuration task.

b. Get the latest software and firmware updates.

To get the latest updates, use the Get Updates task.

c. **Update Oracle ILOM, BIOS, disk expander, or HBA firmware, if needed.**

   To update the component firmware, use the Update Firmware task.

d. **Configure the Oracle ILOM SP.**

   To configure the SP, use the Configure Hardware > Service Processor Configuration task.

e. **Configure RAID for the server storage drives.**

   To configure RAID, use the Configure Hardware > RAID Configuration task.

f. **Install Linux, Windows, or Oracle VM OS.**

   To install a supported OS, use the Install OS task.

Note – For more information, see "Setting Up an Operating System and Drivers" on page 62 or the OS installation guide for the OS that you plan to install.

Next Steps

- "Setting Up an Operating System and Drivers" on page 62
- "Configuring the Preinstalled Oracle Solaris OS" on page 73
- "Configuring Preinstalled Oracle VM Software" on page 81

Setting Up an Operating System and Drivers

You can configure the preinstalled operating system (OS), or install a supported OS for your server. The following table shows you how to access information about installing or configuring an OS.

What do you want to do?	Which OS do you want to configure or install?	Use this tool or documentation
Configure a preinstalled OS	Oracle Solaris OS or Oracle VM	See , ■ "Configuring the Preinstalled Oracle Solaris OS" on page 73 ■ "Configuring the Preinstalled Oracle Linux OS" on page 87 ■ "Configuring Preinstalled Oracle VM Software" on page 81
Install an OS	Oracle VM, Windows, or Linux OS	Oracle System Assistant
	Oracle Solaris OS or VMware ESX	The installation guide for the OS
Install OS drivers	Any supported OS	The installation guide for the OS

Related Information

- "Set Up Software and Firmware (Oracle System Assistant)" on page 61

Preparing the Storage Drives to Install an Operating System

If you plan to install an operating system on the server module, you might need to prepare the hard drives by creating a volume using Oracle System Assistant. If you do not have Oracle System Assistant, you can prepare the drives manually using an LSI BIOS Configuration utility.

For information about creating RAID volumes after you have installed the OS, refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

Note – If you plan to configure a preinstalled operating system, you can skip this section and go to the section for the OS that is preconfigured on your server module.

This section provides information about preparing the server hard drives for an OS:

Description	Links
Learn about the host bus adapters supported for the server module.	"Supported Host Bus Adapters" on page 65
Create a volume and set a boot drive (if needed) for the HBA.	"Prepare the Storage Drives (Oracle System Assistant)" on page 68
Make a virtual drive bootable for the SAS6-R-REM-Z HBA	"Make a Virtual Drive Bootable (LSI WebBIOS Utility)" on page 69

Supported Host Bus Adapters

The following sections contain information about the options for preparing hard drives. Go to the section that corresponds to the HBA that is installed on your server module:

- "SG-SAS6–REM-Z Host Bus Adapter" on page 66
- "SG-SAS6–R-REM-Z Host Bus Adapter" on page 67

SG-SAS6–REM-Z Host Bus Adapter

If you have the Sun Storage 6 Gb SAS REM HBA (SG-SAS6–REM-Z) host bus adapter (HBA) installed on your server, this section contains information to help you to prepare a storage drive for OS installation.

Note – For a drive connected to the SG-SAS6–REM-Z HBA, you can install the operating system on an individual disk without creating a RAID volume. The disk will show up in the system BIOS as a bootable disk. However, if you want to create a RAID volume with the disk before installing an operating system, follow the instructions in this section.

The options available for creating a RAID volume are described in the following topics:

- "Oracle System Assistant" on page 66
- "LSI SAS 2 BIOS Configuration Utility" on page 66

Oracle System Assistant

Oracle System Assistant is the easiest way to create a RAID 0 volume. The following table shows the name that Oracle System Assistant uses for the HBA and support for the HBA in Oracle System Assistant.

Oracle System Assistant Name	Support in Oracle System Assistant
SGXSAS6INTZ	■ Supports RAID 0 with two or more hard drives ■ Cannot display or set a bootable drive ■ Cannot display the state of a disk (good, bad, hotspare)

See "Prepare the Storage Drives (Oracle System Assistant)" on page 68 for instructions on preparing the storage drives with Oracle System Assistant.

LSI SAS 2 BIOS Configuration Utility

The LSI SAS2 BIOS Configuration Utility resides in the HBA firmware.

You can use the LSI SAS2 BIOS Configuration Utility to create a RAID volume before installing and OS for the following reasons:

- You want to create a RAID volume before installing the OS on the disk.
- The server does not have Oracle System Assistant, or you prefer not to use Oracle System Assistant.
- You want to create RAID volume level 1 or 10 using the drives that you want to install the OS on (Oracle System Assistant supports only RAID 0 for the SG-SAS6–REM-Z).

The following LSI document has instructions for creating a volume with the LSI SAS2 BIOS Configuration Utility: *SAS Integrated RAID Solutions User's Guide*. This document is available at:

`http://www.lsi.com/sep/Pages/oracle/sg_x_sas6-rem-z.aspx`

SG-SAS6–R-REM-Z Host Bus Adapter

If you have the Sun Storage 6 Gb SAS REM RAID HBA (SG-SAS6–R-REM-Z) HBA installed on your server, this section contains information to help you to prepare a storage drive for OS installation.

Note – When using the SG-SAS6–R-REM-Z HBA, you *must* create a volume before installing an OS. The system BIOS does not recognize a drive connected to SG-SAS6–R-REM-Z unless it is part of a volume. If there is more than a single volume on the HBA, the volume that the OS will be installed on should be set as the boot device.

The options available for preparing the storage drive are described in the following topics:

- "Oracle System Assistant" on page 67
- "LSI WebBIOS Configuration Utility " on page 67

Oracle System Assistant

Oracle System Assistant is the easiest way to prepare the disk for operating system installation. The following table shows the name that Oracle System Assistant uses for the HBA and support in Oracle System Assistant.

Oracle System Assistant Name	Support in Oracle System Assistant
Sun Storage 6 Gb SAS PCIe RAID HBA	■ Supports RAID 0 with one or more hard drives or RAID 1 with two or more hard drives per volume ■ Can set volume as a boot device ■ Can display if a volume is the boot device ■ Can display the state of a disk (good, bad, hotspare)

See "Prepare the Storage Drives (Oracle System Assistant)" on page 68 for instructions on preparing the storage drives with Oracle System Assistant.

LSI WebBIOS Configuration Utility

The LSI WebBIOS Configuration Utility resides on the HBA firmware.

You can use the LSI WebBIOS Configuration Utility to prepare the storage drive for the following reasons:

- The server does not have Oracle System Assistant, or you prefer not to use Oracle System Assistant.
- You want to create a RAID volume level 5, 6, 10, 50, 60 using the disk on which you plan to install the OS (Oracle System Assistant supports only RAID 0 and 1 for SAS6–R-REM-Z).

The following high-level steps explain the process for preparing the storage drives for OS installation using the LSI WebBIOS Configuration Utility:

1. Create one or more RAID volumes (virtual drives).

   Refer to *MegaRAID SAS Software User's Guide* (link on the web page is Software User's Guide) This document is available at:

   `http://www.lsi.com/sep/Pages/oracle/sg_x_sas6-r-rem-z.aspx`

2. If you create more than one virtual drive, select one virtual drive as the boot volume. See "Make a Virtual Drive Bootable (LSI WebBIOS Utility)" on page 69.

   The *MegaRAID SAS Software User's Guide* does not include instructions for making a drive bootable.

▼ Prepare the Storage Drives (Oracle System Assistant)

You can use the Oracle System Assistant RAID Configuration task to prepare the server hard drives for an OS installation. The task enables you to create a bootable volume using RAID 0 for SGXSAS6INTZ and RAID 0 or 1 for SG-SAS6–R-REM-Z.

Before You Begin

- Set up your installation method:
  - For information about how to set up the cabling to run Oracle System Assistant locally, see "Cabling the Server Module" on page 29.
  - For information about how to set up the ILOM Remote Console, see "Accessing the Server Module Console Through Oracle ILOM" on page 52.
- Review supported HBAs; see "Supported Host Bus Adapters" on page 65.

1 Access Oracle System Assistant. See "Accessing Oracle System Assistant" on page 57.

2 Click the Configure Hardware task button.

The Configure Hardware RAID Configuration screen appears.

3 From the HBA drop-down list, select the host bus adapter (HBA).

Sun Blade X3-2B supports the following storage drive controllers:

- SG-SAS6–REM-Z

- SG-SAS6–R-REM-Z

For more information about supported HBAs, see "Supported Host Bus Adapters" on page 65.

4. **Select the RAID level.**
   Oracle System Assistant supports only RAID 0 and RAID 1.
5. **From the list in the Available Disks section, select the disks to include in the volume .**
6. **Click Create Volume.**
   The volume appears after the volume is created in the list in the Created Volumes section.
7. **Click Volume Details.**
   Enter a name for the volume.
8. **For the SG-SAS6–R-REM-Z HBA (Sun Storage 6 Gb SAS PCIe RAID HBA), set the volume as bootable.**
   - **In the Created Volumes section, select the volume that you just created .**
   - **Click Set Volume for Boot.**

   Note – You do not need to set the boot disk for the SG-SAS6–REM-Z HBA. The system BIOS automatically recognizes the disk as bootable. .

Next Steps Install an OS using the instructions in the appropriate OS installation guide:

- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for ESX Software*
- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for Linux Operating Systems*
- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for the Oracle Solaris Operating System*
- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for Oracle VM Server*
- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for Windows Operating Systems*

▼ Make a Virtual Drive Bootable (LSI WebBIOS Utility)

Use this procedure to make a virtual drive bootable when you have created more than one virtual drive (RAID volume) with an SG-SAS6–R-REM-Z HBA using the LSI BIOS Configuration Utility.

You do *not* need to follow this procedure if any of the following is true:

- You used Oracle System Assistant to create a volume and make the volume bootable.
- You have an SG-SAS6–REM-Z HBA.
- You have created only one virtual drive using the LSI BIOS Configuration Utility.

Before You Begin Create at least one virtual drive on the SG-SAS6–R-REM-Z HBA using the LSI BIOS Configuration Utility.

1. **Ensure that the server is in standby power mode.**

2. **Access the WebBIOS main menu in the LSI SG-SAS6–R-REM-Z HBA BIOS.**

Note – If you just finished creating a virtual drive, you might already be at the WebBIOS screen. If you have exited the WebBIOS utility, follow Step 2 and Step 3 to reach the WebBIOS main menu.

- **If your system BIOS is running in legacy mode:**

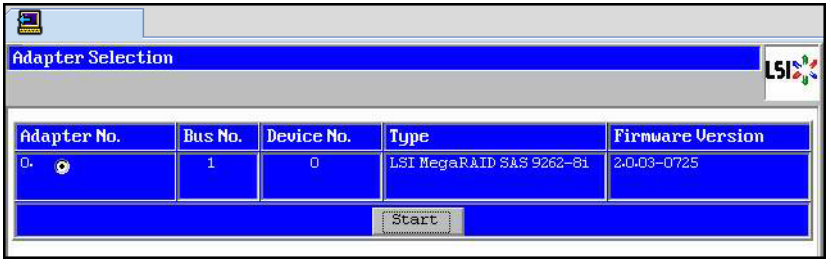
  a. **Boot the system, watch the messages as they appear on the screen, and wait for the LSI banner.**

  b. **When prompted on the banner page, press the Control+H key combination.**

- **If your system BIOS is running in UEFI mode, access the LSI BIOS through the system BIOS Setup utility.**

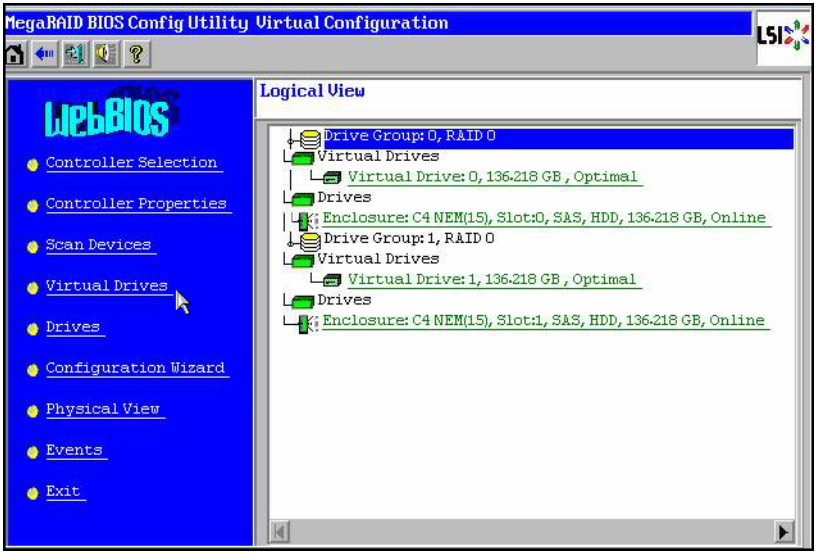
  Refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide* for more information.

The Adapter Selection screen appears.



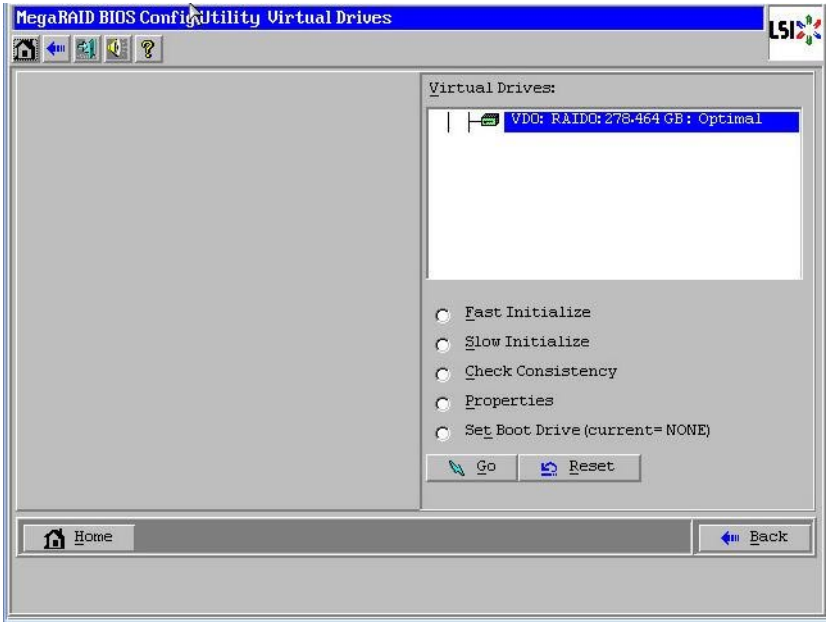
3 In the Adapter Selection screen, click Start.

The MegaRAID BIOS Config Utility Virtual Configuration screen appears.



4 Click Virtual Drives.

The Virtual Drives screen appears.



5. **Select the virtual drive that you want to make bootable.**

6. **Click Set Boot Drive, and then click Go.**

   When the operation is successfully completed, the Set Boot Drive value for this virtual drive shows (current=selected VD).

Next Steps Install an OS using the instructions in the appropriate OS installation guide:

- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for ESX Software*
- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for Linux Operating Systems*
- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for the Oracle Solaris Operating System*
- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for Oracle VM Server*
- *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Installation Guide for Windows Operating Systems*

Configuring the Preinstalled Oracle Solaris OS

If you purchased an optional preinstalled Oracle Solaris OS image for your server module, finish the installation by configuring the preinstalled Solaris OS. The Solaris OS image contains all of the necessary drivers for your server model.

Note – For information about available versions of preinstalled Oracle operating systems, refer to the supported operating systems section in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes*

The following table describes the tasks necessary for configuring the preinstalled Oracle Solaris OS.

Step	Task	Links
1	Review the Solaris OS documentation.	"Oracle Solaris OS Documentation" on page 73
2	Fill out the configuration worksheet for your server environment.	"Configuration Worksheet" on page 74
3	Configure preinstalled Oracle Solaris.	"Configure Preinstalled Oracle Solaris 11" on page 76

Oracle Solaris OS Documentation

For information about using your Oracle Solaris operating system, go to:
`http://www.oracle.com/technetwork/server-storage/solaris11/documentation/index.html`

Configuration Worksheet

Gather the following information, and have it ready for when you begin the configuration process. You need to collect only the information that applies to your organization and network environment.

Required Installation Information	Description	Your Answers—an asterisk (*) identifies the default
Language	Select from the list of available languages for the OS.	English*
Locale	Select your geographic region from the list of available locales.	English (C - 7-bit ASCII)*
Terminal	Select 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, supply the network information	Supply a static IP address for the system.	
	Supply the netmask of the subnet.	255.255.0.0*
	Enable IPv6 on this machine?	■ Yes ■ No*
Host name	Choose a host name for the system.	
Kerberos	Do you want to configure Kerberos security on this machine? If yes, gather this information: ■ Default realm ■ Administration server ■ First KDC ■ Additional KDCs (optional)	■ Yes ■ No*

Required Installation Information	Description	Your Answers—an asterisk (*) identifies the default
Name service	If applicable, which name service should this system use?	■ NIS+ ■ NIS ■ DNS ■ LDAP ■ None*
	Provide the name of the domain in which the system resides.	
	If you chose NIS+ or NIS, do you want to specify a name server, or let the installation program find one?	■ Specify one ■ Find one*
	If you chose DNS, provide the 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:	
	If you chose 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 the following information: ■ Proxy-bind Distinguished Name ■ Proxy-bind password	

Required Installation Information	Description	Your Answers—an asterisk (*) identifies the default
Default route	Do you want to specify a default route IP address, or let the OS installation program find one? The default route provides a bridge that forwards traffic between two physical networks. 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 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 Internet Control Message Protocol (ICMP) for router discovery. 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.	

Next Step

"Configure Preinstalled Oracle Solaris 11" on page 76

▼ Configure Preinstalled Oracle Solaris 11

Before You Begin Gather the necessary organizational and network environment information needed to configure the OS. Refer to "Configuration Worksheet" on page 74.

1 Log in to Oracle ILOM.

You can log in either locally from a direct serial connection or remotely from an Ethernet connection. For more information, see "Logging In to Server Module SP Oracle ILOM " on page 48.

2. **Depending on the state of the server, power on or restart the server:**

   - **To *power on* the server use one of the following methods:**

     - **From the Oracle ILOM web interface, click Host Management > Power Control, and then select Power On from the menu.**

     - **From the Oracle ILOM CLI, type the following command from the ILOM prompt:**

       ```
       -> start /System
       ```

       When prompted, type **y** to confirm:

       ```
       Are you sure you want to start /SYS (y/n)? y

       Starting /System
       ```

   - **To *restart* the server, use one of the following methods:**

     - **From the Oracle ILOM web interface, click Host Management > Power Control, and then select Reset from the menu.**

       See "Connect to the Server Module (Remote Console)" on page 53 for more information about connecting to the Oracle ILOM console web interface.

     - **From the Oracle ILOM CLI, type the following command from the Oracle ILOM prompt:**

       ```
       -> reset /System
       ```

       When prompted, type **y** to confirm:

       ```
       Are you sure you want to reset /System (y/n)? y

       Performing hard reset on /System
       ```

   The server module begins the host boot process.

   See "Connect to the Server Module Serial Console (CLI)" on page 52 for more information about connecting to the Oracle ILOM console CLI.

3. **From Oracle ILOM, start the host console using one of the following methods:**

   - **From the Oracle ILOM web interface, click Remote Control > Launch Remote Console.**

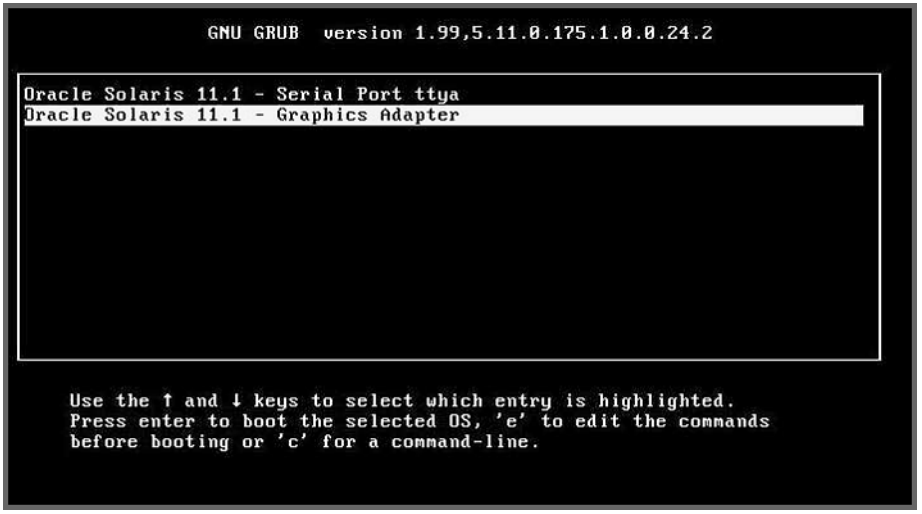
   - **From the Oracle ILOM CLI, type:**

     ```
     -> start /HOST/console
     ```

     When prompted, type **y** to confirm:

     ```
     Are you sure you want to start /HOST/console (y/n)? y
     Serial console started.
     ```

4 **The server begins the host boot process. After the server boots, the GRUB menu appears (see example below). Press a key other than Enter to pause, or in 5 seconds the highlighted selection will be used.**



5 **From the GRUB menu, use the up and down arrow keys to select a display option, and press Enter. Options include:**

You can choose whether you want to continue to direct the display to the serial port or direct the display to a device connected to the video port.

- For the serial port:

  ```
  Oracle Solaris 11.1 - Serial Port ttya
  ```

- For the video port:

  ```
  Oracle Solaris 11.1 - Graphics Adapter
  ```

Note – If you choose to display output to the video port, you must connect a VGA display and input device (USB keyboard and mouse) to a multiport (dongle) cable attached to the server module's UCP port. See "Cabling the Server Module" on page 29 for information about attaching devices to the server. You can also use the Oracle ILOM Remote Console feature which acts as a remote KVM.

---

6 **When the Oracle Solaris 11 installer begins, follow the onscreen prompts to configure the software using the information you collected earlier about your organization and network environment.**

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

7 **When installation is complete, end your console session using *one* of the following methods:**

- **From the Oracle ILOM web interface, close the Remote Console window, and then log out of Oracle ILOM.**
- **From the Oracle ILOM CLI, press Esc followed by the (character (Shift+9), and then log out of Oracle ILOM.**

More Information Related Information

- "Oracle Solaris OS Documentation" on page 73
- "Configuration Worksheet" on page 74

Configuring Preinstalled Oracle VM Software

If your server has the optional preinstalled Oracle VM software image, finish the installation by configuring the software. The preinstalled software image contains all of the necessary drivers for your server model.

Note – Refer to the supported operating systems section in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes* for information about available versions of Oracle pre-installed operating systems.

The following table describes the tasks necessary for configuring the pre-installed Oracle VM.

Step	Task	Links
1	Fill out the Oracle VM Server configuration worksheet for your server environment.	"Oracle VM Server Configuration Worksheet" on page 81
2	Configure preinstalled Oracle VM software.	"Configure the Preinstalled Oracle VM Server" on page 82
3	Update the Oracle VM software.	"Updating Oracle VM Software" on page 85
4	Use the Oracle VM operating system.	"Getting Started With Oracle VM" on page 85

Oracle VM Server Configuration Worksheet

Gather the following information and have it ready for when you begin the configuration process. You need to collect only the information that applies to your organization and network environment.

Required Installation Information	Description	Your Answers
Oracle VM Server passwords	■ Choose a root password; there are no restrictions on the characters or length. ■ Choose an Oracle VM agent password; password must be at least six characters.	
Network interface	Supply the interface to be used to manage the server.	
Network configuration	Supply the IP address for the server. *A static IP address is required.*	
	If the server is part of a subnet, supply the netmask of the subnet.	
	If the server is accessed through a gateway, supply the IP address of the gateway.	
	Supply the IP address for the domain name server (DNS). *One (and only one) DNS is required.*	
Host name	Supply the fully qualified domain name for the server. Example: *hostname*.oracle.com	

Related Information

- "Configure the Preinstalled Oracle VM Server" on page 82

▼ Configure the Preinstalled Oracle VM Server

These instructions describe how to configure only the preinstalled Oracle VM Server on your server module. Oracle VM also has other components, such as Oracle VM Manager, that must be installed or already up and running to support the virtual machine environment.

Before You Begin Gather the necessary organizational and network environment information needed to configure the software. See "Oracle VM Server Configuration Worksheet" on page 81.

1 **If you are not already logged in to the server module's Oracle ILOM, log in either locally from a direct serial connection, or remotely from an Ethernet connection.**

See "Logging In to Server Module SP Oracle ILOM " on page 48.

2 **From Oracle ILOM, start the host console using *one* of the following methods:**

- **From the Oracle ILOM web interface, click Remote Control > Launch Remote Console.**

  After the server boots, the GRUB menu appears.

See "Connect to the Server Module (Remote Console)" on page 53 for more information about connecting to the Oracle ILOM console web interface.

- **From the Oracle ILOM CLI, type:**

  ```
  -> start /HOST/console
  ```

  When prompted, type **y** to confirm:

  ```
  Are you sure you want to start /HOST/console (y/n)? y
  Serial console started.
  ```

  After the server boots, the GRUB menu appears.

  See "Connect to the Server Module Serial Console (CLI)" on page 52 for more information about connecting to the Oracle ILOM console CLI.

Note – If you do not press a key within five seconds, the default selection (serial port) will be used. Press the up or down arrow to pause at this menu.

---

3 **Power on or restart the server, as follows:**

- **To power on the server, use *one* of the following methods:**
  - **From the Oracle ILOM web interface, click Host Management > Power Control, and then click Power On from the menu.**
  - **From the Oracle ILOM CLI, type:**

    ```
    -> start /System
    ```

    When prompted, type **y** to confirm:

    ```
    Are you sure you want to start /SYS (y/n)? y

    Starting /System
    ```

- **To restart the server, use *one* of the following methods:**
  - **From the Oracle ILOM web interface, click Host Management > Power Control, and then select Reset from the menu.**
  - **From the ILOM CLI, type:**

    ```
    -> reset /System
    ```

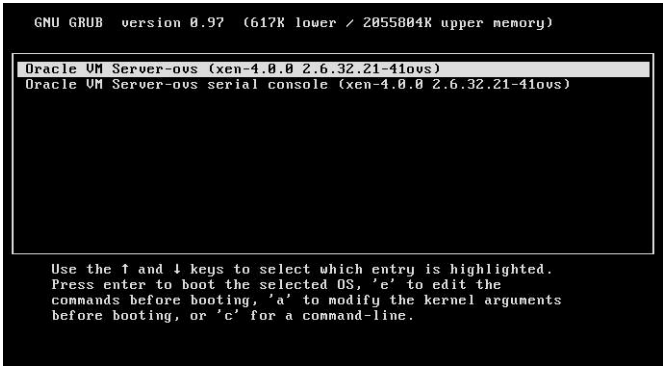
    When prompted, type **y** to confirm:

    ```
    Are you sure you want to reset /System (y/n)? y

    Performing hard reset on /System
    ```

The server module begins the host boot process. After the server boots, the GRUB menu appears.

Note – If you do not press a key within five seconds, the GRUB menu disappears from the screen and the display is by default directed to the serial port. To pause at the GRUB menu, press any key other than Enter. Then select the option you want to use and press Enter to continue.



4 **From the GRUB menu, use the up and down arrow keys to select a display option, and press Enter.**

- To display output to the video port, select the first option on the list and press Enter:

  ```
  Oracle VM Server - ovs (xen-4.0.0 2.6.32.32-41ovs)
  ```

- To display output to the serial port, select the second option on the list and press Enter:

  ```
  Oracle VM Server - ovs serial console (xen-4.0.0
  2.6.32.21-41ovs)
  ```

Note – If you choose to display output to the video port, you must connect a VGA display and input device (USB keyboard and mouse) to a multiport (dongle) cable attached to the server module's UCP port. See "Connecting to Oracle ILOM" on page 35 for information about attaching devices to the server.

---

5 **Follow the Oracle VM installer onscreen prompts to configure the software using the organization and network information you collected earlier.**

6 **When installation is complete, end your console session using *one* of the following methods:**

- **From the Oracle ILOM web interface, close the Remote Console window, and then log out of Oracle ILOM.**

- **From the Oracle ILOM CLI, press Esc followed by the (character (Shift+9) to terminate the serial redirect session, and then log out of Oracle ILOM.**

7 **Update your Oracle VM software, if necessary.**

See "Updating Oracle VM Software" on page 85.

More Information Related Information

- Obtaining Oracle VM Server software. Go to:

  `http://edelivery.oracle.com/linux`

- Obtaining Oracle VM Templates. Go to:

  `http://www.oracle.com/technetwork/server-storage/vm/templates-101937.html`

Updating Oracle VM Software

If you use the Oracle VM Server software that is preinstalled on your system, you must ensure that it is compatible with the version of Oracle VM Manager that you use to manage your Oracle VM infrastructure. If necessary to achieve compatibility, upgrade your Oracle VM Server or Oracle VM Manager so that they are the same version.

For information about upgrading the Oracle VM software, refer to the Oracle VM documentation. The Oracle VM documentation is available at: `http://www.oracle.com/technetwork/documentation/vm-096300.html`

Getting Started With Oracle VM

For complete information about using Oracle VM, refer to the Oracle VM documentation available at the following location:

`http://www.oracle.com/technetwork/documentation/vm-096300.html`

Here are some tips on setting up your Oracle VM environment:

- Two VMs are installed on the server as part of the preinstalled software configuration process: Oracle Solaris and Oracle Linux.
  - The default root password for the Oracle Linux VM is `ovsroot`.

    You configure the root password for the Oracle Solaris VM as part of the Oracle Solaris installation procedure.
  - The default console password for both VMs is `oracle`.
- Adding your server to an existing server pool, or creating a new one.

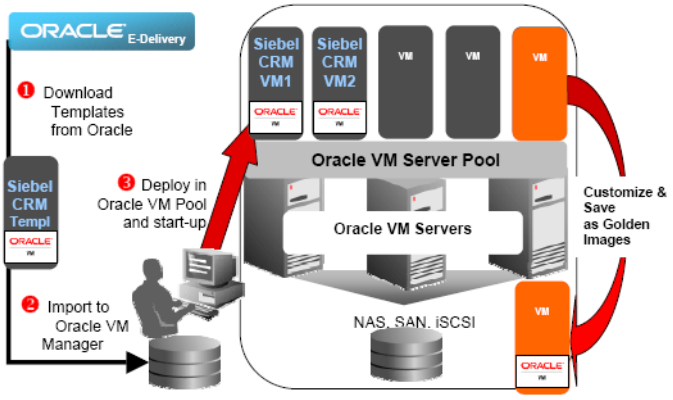
In a typical Oracle VM deployment, multiple Oracle VM Servers are grouped into server pool. Every server has access to external shared storage. With Oracle VM Server software pre-installed, you can quickly place your server in a pool with shared storage.

For Oracle VM 3.0, more information about storage and server pools can be found in the Oracle VM documentation at:

`http://www.oracle.com/technetwork/documentation/vm-096300.html`

- Downloading and installing the appropriate Oracle VM Templates for your guest VMs.

  Oracle provides templates that can be used to easily deploy a prebuilt, preconfigured, pre-patched guest virtual machine (or multiple machines depending on the application). Templates are downloaded from Oracle and deployed through Oracle VM Manager.



Templates can contain a complete Oracle software solution, such as Siebel CRM or Oracle Database, including the operating system (Oracle Enterprise Linux) and internally developed or third-party software. Templates can also be customized for your specific environment. For more information, go to:

`http://www.oracle.com/technetwork/server-storage/vm/templates-101937.html`

Related Information

- "Oracle VM Server Configuration Worksheet" on page 81
- "Configure the Preinstalled Oracle VM Server" on page 82

Configuring the Preinstalled Oracle Linux OS

If your server has the optional preinstalled Oracle Linux OS image, finish the installation by configuring the software. The preinstalled OS image contains all of the necessary drivers for your server model.

The following table describes the tasks necessary for configuring the preinstalled Oracle Linux OS.

Step	Task	Links
1	Fill out the Oracle Linux configuration worksheet for your server environment.	"Oracle Linux Configuration Worksheet" on page 87
2	Configure the preinstalled Oracle Linux OS.	"Configure the Preinstalled Oracle Linux OS" on page 88
3	Update and register the Oracle Linux OS.	"Register and Update Your Oracle Linux OS" on page 90

Oracle Linux Configuration Worksheet

Gather the following information and have it ready for when you begin the configuration process. You need to collect only the information that applies to your organization and network environment.

Required Installation Information	Description	Your Answers
Oracle Linux root password	Choose a root password that you will use to replace the factory default password; there are no restrictions on the characters or length.	
Network interface	Choose a interface on the server (`eth#`) that will be connected to your network. (Once Linux is up and running, the `ifconfig -a` command can be used to help identify server network ports.)	

Required Installation Information	Description	Your Answers
Network configuration (if you are not using DHCP)	Supply the IP address for the server. Example: 172.16.9.1	
	If the server is part of a subnet, supply the netmask of the subnet. Example: 255.255.0.0	
	If the server is accessed through a gateway, supply the IP address of the gateway.	
	Supply the IP address for the domain name server (DNS). *One (and only one) DNS is required.*	

Related Information

- "Configure the Preinstalled Oracle Linux OS" on page 88

▼ Configure the Preinstalled Oracle Linux OS

These instructions describe how to configure the preinstalled Oracle Linux on your server.

1. **If you are not already logged in to the server's Oracle ILOM, log in either locally from a direct serial connection, or remotely from an Ethernet connection.**

   See "Logging In to Server Module SP Oracle ILOM " on page 48.

2. **Power on or restart the server, as follows:**

   - **To power on the server, use *one* of the following methods:**

     - **From the Oracle ILOM web interface, click Host Management > Power Control, and then click Power On from the menu.**

     - **From the Oracle ILOM CLI, type:**

       ```
       -> start /System
       ```

       When prompted, type **y** to confirm:

       ```
       Are you sure you want to start /SYS (y/n)? y

       Starting /System
       ```

- **To restart the server, use *one* of the following methods:**
  - **From the Oracle ILOM web interface, click Host Management > Power Control, and then select Reset from the menu.**
  - **From the ILOM CLI, type:**

    ```
    -> reset /System
    ```

    When prompted, type **y** to confirm:

    ```
    Are you sure you want to reset /System (y/n)? y

    Performing hard reset on /System
    ```

3. **From Oracle ILOM, start the host console using *one* of the following methods:**
   - **From the Oracle ILOM web interface, click Remote Control > Launch Remote Console.**
   - **From the Oracle ILOM CLI, type:**

     ```
     -> start /HOST/console
     ```

     When prompted, type **y** to confirm:

     ```
     Are you sure you want to start /HOST/console (y/n)? y
     Serial console started.
     ```

4. **The server begins the host boot process. After the server boots, the GRUB menu appears (see example below). Press a key other than Enter to pause, or in 5 seconds the highlighted selection will be used.**

```
    GNU GRUB  version 0.97  (612K lower / 2082932K upper memory)

+-------------------------------------------------------------------------+
      Oracle Linux Server-uek (2.6.39-200.24.1.el6uek.x86_64)
      Oracle Linux Server (2.6.32-279.el6.x86_64)




+-------------------------------------------------------------------------+
      Use the ^ and v keys to select which entry is highlighted.
      Press enter to boot the selected OS, 'e' to edit the
      commands before booting, 'a' to modify the kernel arguments
      before booting, or 'c' for a command-line.

      The highlighted entry will be booted automatically in 5 seconds.
```

5. **From the GRUB menu, use the up and down arrow keys to select an installation option, and press Enter. Options include:**
   - The Unbreakable Enterprise Kernel. For example:

     ```
     Oracle Linux Server-uek (2.6.39-200.24.1.el6uek.x86_64)
     ```

- The Red Hat Compatible Kernel. For example:

  ```
  Oracle Linux Server (2.6.32-279.el6.x86_64)
  ```

6 Once an installation option has been selected, Linux starts. When done, you will see the Linux system login. For example:

```
Oracle Linux Server release 6.3
Kernel 2.6.39-200.24.1.el6uek.x86_64 on an x86_64
```

systemname `login:`

For the first time login, use the **`root`** account and factory default password (**`root`**).

7 Once logged in, complete the configuration of your server using standard Linux tools. Tasks include:

- For security, change the factory default password for **`root`**.
- Configure your server for the network (if DHCP is not used). See "Oracle Linux Configuration Worksheet" on page 87.
- Configure a proxy, as needed, for Internet access.
- Register and update your server. See "Register and Update Your Oracle Linux OS" on page 90.
- Install desired packages.

8 When configuration is complete, end your console session using *one* of the following methods:

- **From the Oracle ILOM web interface, close the Remote Console window, and then log out of Oracle ILOM.**
- **From the Oracle ILOM CLI, press Esc followed by the (character (Shift+9) to terminate the serial redirect session, and then log out of Oracle ILOM.**

▼ Register and Update Your Oracle Linux OS

Before You Begin The Unbreakable Linux Network (ULN) is a comprehensive resource for Oracle Linux support subscribers, offering access to Linux software patches, updates and fixes, along with information on updates and support policies. Licensed Oracle customesr with an active Oracle Linux support subscription receive an Oracle Linux CSI (customer support identifier) number. Use this number to register your server on ULN. Registration requires a CSI number and a valid email address.

1 If you do not already have one, set up your ULN account.

Use your email address and CSI and create a password for the account.

`http://linux.oracle.com/register`

2 **Once you have an account, run the command below on the server as the root user in a terminal window or on the command line:**

```
uln_register
```

The `uln_register` wizard collects machine information and uploads it to Oracle.

The above command selects the default channel, *ol6_<arch>_latest*. The *_latest* channels provide RPMs for all the packages in the distribution, including those errata also provided in the *_patch* channels (that is. the version of any RPM downloadable on the *_latest* channels is always the most recent available). You can subscribe to other channels using the web interface, after you have registered.

More Information

Related Information

- For more information about the registration process, see:

  `http://www.oracle.com/technetwork/topics/linux/yum-repository-setup-085606.html`

- For more information about the Oracle Unbreakable Linux Network, see:

  `http://linux.oracle.com/`

Troubleshoot Installation Issues

This section describes how to troubleshoot installation issues.

The following table describes the tasks related to troubleshooting the server.

Task	Links
Power off the server for graceful shutdown.	"Powering Off the Server for Graceful Shutdown" on page 93
Power off the server for emergency shutdown. **Note –** If you use any of these procedures to shut down the server module, any unsaved data will be lost.	"Powering Off the Server for Immediate Shutdown" on page 95
Reset the server.	"Resetting the Server" on page 97
Identify server faults.	"Identifying Server Faults" on page 99
Troubleshoot server power states.	"Troubleshooting Server Power States" on page 99
Record server information before contacting Service.	"Technical Support Information Worksheet" on page 100
Locate the system serial number before contacting Service.	"Locating the System Serial Number" on page 101

Powering Off the Server for Graceful Shutdown

To perform a graceful shut down of the server to standby power mode, use the server's OS shutdown procedure. The procedures in this section provide alternate graceful shutdown methods. These alternate methods cause ACPI-enabled operating systems to perform a graceful shutdown. Servers not running ACPI-enabled operating systems shut down to standby power mode immediately. An immediate shutdown can cause the loss of unsaved data.

- "Use the Power Button for Graceful Shutdown" on page 94
- "Use the Oracle ILOM CLI for Graceful Shutdown" on page 94
- "Use the Oracle ILOM Web Interface for Graceful Shutdown" on page 95

▼ Use the Power Button for Graceful Shutdown

You can perform a graceful shutdown of the server using the front panel power button. If the server OS is not ACPI-enabled, an immediate shutdown occurs. An immediate shutdown can cause the loss of unsaved data.

This procedure requires access to the server front panel.

- **Press and release the Power button on the front panel of the server module.**

  For more information, see "Server Module Front Panel and Indicators" on page 15.

More Information Related Information

- "Resetting the Server" on page 97
- "Troubleshooting Server Power States" on page 99
- "Technical Support Information Worksheet" on page 100

▼ Use the Oracle ILOM CLI for Graceful Shutdown

You can perform a graceful shut down of the server remotely using the Oracle ILOM command-line interface (CLI). If the server OS is not ACPI-enabled, an immediate shutdown occurs. An immediate shutdown can cause the loss of unsaved data.

1. **Log in to the Oracle ILOM CLI for the server module SP or CMM.**

   For more information, see "Logging In to Server Module SP Oracle ILOM " on page 48.

2. **Use one of the following commands for graceful system shutdown:**

   - **From the server module SP CLI, type:**

     ```
     stop /System
     ```

   - **From the CMM CLI, type:**

     ```
     stop /CH/BLn/System
     ```

     where *n* is the chassis slot that the blade is installed in.

More Information Related Information

- "Resetting the Server" on page 97
- "Troubleshooting Server Power States" on page 99
- "Technical Support Information Worksheet" on page 100
- "Locating the System Serial Number" on page 101

▼ Use the Oracle ILOM Web Interface for Graceful Shutdown

You can perform a graceful shut down of the server remotely using the Oracle ILOM web interface. If the server OS is not ACPI-enabled, an immediate shutdown occurs. An immediate shutdown can cause the loss of unsaved data.

1. **Log in to the Oracle ILOM web interface for the server module SP or CMM.**

   For more information, see "Logging In to Server Module SP Oracle ILOM " on page 48.

2. **Click Host Management > Power Control.**

   The Power Control page appears.

3. **Use one of the following actions for graceful system shutdown:**

   - **From the server module SP interface Actions menu, select Graceful Shutdown and Power Off.**
   - **From the CMM interface, click the radio button next to /CH/BL*n*/System, and select Graceful Shutdown and Power Off from the Actions list.**

     where *n* is the chassis slot that the blade is installed in.

More Information Related Information

- "Resetting the Server" on page 97
- "Troubleshooting Server Power States" on page 99
- "Technical Support Information Worksheet" on page 100

Powering Off the Server for Immediate Shutdown

Use the procedures in this section to perform an immediate shutdown of the server. These shutdown methods are not graceful and can causes the loss of unsaved data.

- "Use the Power Button for Immediate Shutdown" on page 95
- "Use the Oracle ILOM CLI for Immediate Shutdown" on page 96
- "Use the Oracle ILOM Web Interface for Immediate Shutdown" on page 97

▼ Use the Power Button for Immediate Shutdown

You can perform an immediate shutdown the server using the front panel power button. An immediate shutdown can cause the loss of unsaved data.

This procedure requires access to the server front panel.

Caution – Data loss. Unsaved data is lost when an immediate shutdown is performed.

- **Press and hold the Power button for five seconds to force power off and to enter standby power mode.**

Note – To completely power off the server, you must remove the server module from the chassis.

More Information Related Information

- “Resetting the Server” on page 97
- “Troubleshooting Server Power States” on page 99
- “Technical Support Information Worksheet” on page 100

▼ Use the Oracle ILOM CLI for Immediate Shutdown

You can perform an immediate shutdown the server using the Oracle ILOM CLI. An immediate shutdown can cause the loss of unsaved data.

Caution – Data loss. Unsaved data is lost when an immediate shutdown is performed.

1. **Log in to the Oracle ILOM CLI for the server module SP or CMM.**
2. **Use one of the following commands to perform an immediate shutdown of the server:**
   - **From the server module SP CLI, type:**

     ```
     stop –force /System
     ```

   - **From the CMM CLI, type:**

     ```
     stop -force /CH/BLn/System
     ```

     where *n* is the chassis slot that the blade is installed in.

More Information Related Information

- “Resetting the Server” on page 97
- “Troubleshooting Server Power States” on page 99
- “Technical Support Information Worksheet” on page 100

- "Locating the System Serial Number" on page 101

▼ Use the Oracle ILOM Web Interface for Immediate Shutdown

You can perform an immediate shutdown the server using the Oracle ILOM web interface. An immediate shutdown can cause the loss of unsaved data.

Caution – Data loss. Unsaved data is lost when an immediate shutdown is performed.

1. **Log in to the Oracle ILOM interface for the server module SP or CMM.**
2. **Click Host Management > Power Control.**
   The Remote Power Control page appears.
3. **Use one of the following actions to perform an immediate shutdown of the server:**
   - **From the server module SP interface, select Immediate Power Off from the Actions list.**
   - **From the CMM interface, click the radio button next to /CH/BL*n*/System, and select Immediate Power Off from the Actions list.**
     where *n* is the chassis slot that the blade is installed in.

More Information Related Information

- "Resetting the Server" on page 97
- "Troubleshooting Server Power States" on page 99
- "Technical Support Information Worksheet" on page 100

Resetting the Server

The procedures in this section allow you to perform a warm reset (reboot) of the server. For this type of reset the server is shutdown to standby power mode and restarted. Power is not completely removed from the server. To completely remove power from the server to perform a cold reset, see "Complete Power Removal" in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Service Manual*.

The procedures in the following sections describe how to reset the server.

- "Use the Oracle ILOM CLI to Reset the Server" on page 98

- "Use the Oracle ILOM Web Interface to Reset the Server" on page 98

Use the Oracle ILOM CLI to Reset the Server

This procedure allows you to reset the server using the Oracle ILOM CLI. With this type of reset power is not completely removed from the server. For more information, see "Resetting the Server" on page 97.

1. **Log in to the Oracle ILOM CLI for the server module or CMM.**
2. **Use one of the following commands to reset the server:**
   - **From the server module SP CLI, type:**

     ```
     reset /System
     ```

   - **From the CMM CLI, type:**

     ```
     reset /CH/BLn/System
     ```

     where *n* is the chassis slot that the blade is installed in.

More Information Related Information

- "Troubleshooting Server Power States" on page 99
- "Technical Support Information Worksheet" on page 100

Use the Oracle ILOM Web Interface to Reset the Server

This procedure allows you to reset the server using the Oracle ILOM web interface. With this type of reset power is not completely removed from the server. For more information, see "Resetting the Server" on page 97.

1. **Log in to the Oracle ILOM interface for the server module SP or CMM.**
2. **Click Host Management > Power Control.**

   The Power Control page appears.
3. **Use one of the following actions to reset the server:**
   - **From the server module SP interface, select Reset from the Actions menu.**

- **From the CMM interface, click the radio button next to /CH/BL*n*, and select Reset from the Actions list**

  where *n* is the chassis slot that the blade is installed in.

More Information Related Information

- "Troubleshooting Server Power States" on page 99
- "Technical Support Information Worksheet" on page 100
- "Locating the System Serial Number" on page 101

Identifying Server Faults

A lit Service Action Required LED indicates that the server is in a fault state and requires immediate attention. If your server has a lit Service Action Required LED, check Oracle ILOM for system faults, including DIMM–, CPU–, component–, or temperature–related issues.

For more information about identifying server module faults, refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Service Manual*.

Troubleshooting Server Power States

Each time a server module powers on in a Sun Blade 6000 modular system, it queries the CMM to ensure that sufficient power is available from the power supply units (PSUs) to power on the server module.

If the power is insufficient, the CMM prevents the server module from receiving full power. In this situation, the OK/Power LED on the front panel of the server module remains at standby blink.

To troubleshoot this power issue, follow these guidelines:

- Review the Oracle ILOM event log messages to determine whether the server module has permission to power on. An event message is recorded in the log any time there is inadequate amount of power available from the chassis PSUs to power on a server module.

  For more information about the Oracle ILOM event log or monitoring power consumption, refer to the `http://www.oracle.com/pls/topic/lookup?ctx=ilom31`.
- Ensure that the system chassis has the proper number of power supplies installed to support powering on all the chassis components that are currently installed.

  Refer to the system chassis documentation for information about the number of power supplies required to power on chassis components.
- To avoid power loss, use the *default* CMM power management settings in Oracle ILOM for power supplies.

For more information about power management, refer to the `http://www.oracle.com/pls/topic/lookup?ctx=ilom31`.

Note – When power-on permissions become available, the OK/Power LED on the front panel of the server module illuminates a standby blink.

- As needed, refer to the*Oracle x86 Server Diagnostics, Applications, and Utilities Guide* for instructions on how to run the start up diagnostic tools provided with the server module.

Related Information

- "Powering Off the Server for Graceful Shutdown" on page 93
- "Powering Off the Server for Immediate Shutdown" on page 95
- "Technical Support Information Worksheet" on page 100
- "Locating the System Serial Number" on page 101

Technical Support Information Worksheet

If the troubleshooting information fails to solve your problem, use the following table to collect information that you might need to communicate to the support personnel.

System Configuration Information Needed	Your Information
Service contract number	
System model	
Operating system	
System serial number	
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)	

System Configuration Information Needed	Your Information
Network or Internet domain name	
Proxy server configuration	

Locating the System Serial Number

If you ever need Oracle warranty support for your server module, you must have your serial number. The serial number is located on a label on the front panel of the server module.

To view support and warranty information for your product, go to:

`http://support.oracle.com`

Related Information

- "Additional Components" on page 25

Getting Server Firmware and Software

This section explains the options for accessing server firmware and software.

Description	Links
Learn about server firmware and software updates.	"Firmware and Software Updates " on page 103
Learn about the options for accessing firmware and software.	"Firmware and Software Access Options" on page 104
View the available firmware and software packages.	"Available Software Release Packages" on page 104
Access the firmware and software packages through Oracle System Assistant, My Oracle Support, or a physical media request.	"Accessing Firmware and Software" on page 105
Install firmware and software updates.	"Installing Updates" on page 109

Firmware and Software Updates

Firmware and software, such as hardware drivers and tools for the server, are updated periodically. Updates are made available as a software release. The software release is a set of downloads (patches) that include all available firmware, hardware drivers, and utilities for the server. All these have been tested together. The Read Me document that is included with the download explains what has changed and what has not changed from the prior software release.

You should update your server firmware and software as soon as possible after the software release becomes available. Software releases often include bug fixes, and updating ensures that your server module software is compatible with the latest chassis firmware and other chassis component firmware and software.

A Read Me file in the download package and the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes* contain information about the updated files in the download package, as well as bugs that are fixed with the current release. The product notes also provide information about which server module software versions are supported with the latest chassis firmware.

Firmware and Software Access Options

Use one of the following options to obtain the latest set of firmware and software for your server:

- **Oracle System Assistant** – Oracle System Assistant is a new factory-installed option for Oracle servers that allows you to easily download and install server firmware and software.

  For more information about using Oracle System Assistant, refer to Access Oracle System Assistant Remotely.

- **My Oracle Support** – All system firmware and software are available from My Oracle Support at `http://support.oracle.com`.

  For more information about what is available on the My Oracle Support, see "Available Software Release Packages" on page 104.

  For instructions on how to download software releases from My Oracle Support, see: "Download Firmware and Software Using My Oracle Support" on page 106.

- **Physical media request (PMR)** – You can request a DVD that contains any of the downloads (patches) available from My Oracle Support.

  For information see: "Request Physical Media (Online)" on page 107.

Available Software Release Packages

Downloads on My Oracle Support are grouped by product family, then product, then version. The version contains one or more downloads (patches).

For servers and blades, the pattern is similar. The product is the server. Each server contains a set of releases. These releases are not true software product releases, but releases of updates for the server. These updates are called software releases and comprise several downloads, all tested together. Each download contains firmware, drivers, or utilities.

My Oracle Support has the same set of download types for this server family as shown in the following table. These can also be requested through a physical media request (PMR). The same firmware and software can also be downloaded using Oracle System Assistant.

Package Name	Description	When to Download This Package
X3-2B SW*version* – Firmware Pack	All the system firmware, including Oracle ILOM, BIOS, and option card firmware.	You need the latest firmware.

Package Name	Description	When to Download This Package
X3-2B SW*version* – OS Pack	An OS pack is available for each supported operating system version. Each OS pack includes a package of all tools, drivers, and utilities for that version of the OS. Software includes Oracle Hardware Management Pack and LSI MegaRAID software.	You need to update OS-specific drivers, tools, or utilities.
X3-2B SW*version* – All packs	Includes the Firmware Pack, all OS Packs, and all documents. This pack does not include SunVTS or the Oracle System Assistant image.	You need to update a combination of system firmware and OS-specific software.
X3-2B SW*version* – Diagnostics	SunVTS diagnostics image.	You need the SunVTS diagnostics image.
X3-2B SW*version* – Oracle System Assistant Updater	Oracle System Assistant updater and ISO update image.	You need to manually recover or update Oracle System Assistant.

Each of the downloads is a zip file that contains a Read Me and a set of subdirectories containing firmware or software files. The Read Me file contains details on the components that have changed since the prior software release and the bugs that have been fixed. For more details on the directory structure of these downloads, refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

Accessing Firmware and Software

This section covers instructions for downloading or requesting software release files.

Note – You can also use Oracle System Assistant to easily download and use the latest software release. For further information, refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

There are two other methods for obtaining updated firmware and software.

- "Download Firmware and Software Using My Oracle Support" on page 106
- "Requesting Physical Media" on page 106

▼ Download Firmware and Software Using My Oracle Support

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 Blade X3-2B) until a match appears.
6. **In the Release field, select a software release from the drop-down list.**
   Expand the folders to see all available software releases.
7. **Click Search.**
   The software release comprises a set of downloads (patches) .
   See "Available Software Release Packages" on page 104 for a description of the available downloads.
8. **To select a patch, click the check box next to the patch name (you can select more than one patch).**
   A pop-up action panel appears. The panel contains several action options.
9. **To download the update, click Download in the pop-up panel.**
   The download begins automatically.

Requesting Physical Media

If your processes do not allow downloads from Oracle web sites, you can access the latest software release through a physical media request (PMR).

The following table describes the high-level tasks for making a physical media request and provides links for further information.

Description	Link
Gather information you will need to provide for the request.	"Gathering Information for the Physical Media Request" on page 107
Make the physical media request either online or by calling Oracle Support.	"Request Physical Media (Online)" on page 107 "Request Physical Media (by Phone)" on page 108

Gathering Information for the Physical Media Request

You must have a warranty or support contract for your server in order to make a physical media request (PMR).

Before you make the PMR, gather the following information:

- **Obtain product name, software release version, and patches required**. It will be easier to make the request if you know the latest software release and the name of the download packages (patches) that you are requesting.
  - *If you have access to My Oracle Support* – Follow the instructions in "Download Firmware and Software Using My Oracle Support" on page 106 to determine the latest software release and view available downloads (patches). After viewing the list of patches, you can navigate away from Patch Search Results page, if you do not want to continue with the download steps.
  - *If you do not have access to My Oracle Support* – Use the information in "Available Software Release Packages" on page 104 to determine which packages you want, then request these packages for the latest software release.
- **Have the shipping information ready**. You will need to provide a contact, phone number, email address, company name and shipping address for the request.

▼ Request Physical Media (Online)

Before You Begin Gather the information described in "Gathering Information for the Physical Media Request" on page 107 before making the request.

1. **Go to `http://support.oracle.com` and sign in.**
2. **Click on the Contact Us link in the upper right corner of the page.**
3. **In the Request Description section, fill in the following:**
   a. **In the Request Category drop-down list, select the following:**
      Physical Media Request (Legacy Oracle Products, Primavera, BEA, Sun Products)

b. **In the Request Summary field, type: .**

   `PMR for latest software release for Sun Blade Sun Blade X3-2B`

4 **In the Request Details section, answer the questions shown in the following table:**

Question	Your Answer
Is this a physical software media shipment request?	Yes
Which product line does the media request involve?	Sun Products
Are you requesting a required password for a patch download?	No
Are you requesting a patch on CD/DVD?	Yes
If requesting a patch on CD/DVD, please provide the patch number and OS/platform?	Enter the patch number for each download that you want from the software release.
List the product name and version requested for the physical media shipment?	*Product Name*: Sun Blade X3-2B *Version*: Latest software release number.
What is the OS/platform for the requested media?	If you are requesting OS-specific downloads, specify the OS here. If you are requesting system firmware only, enter Generic.
Are any languages required for this shipment?	No

5 **Fill in the Ship-To contact, phone number, email address, company name, and shipping address information.**

6 **Click Next.**

7 **Under Relevant Files, type: `Knowledge Article 1361144.1`**

8 **Click Submit.**

▼ Request Physical Media (by Phone)

Before You Begin Gather the information described in "Gathering Information for the Physical Media Request" on page 107 before making the request.

1 **Call Oracle support, using the appropriate number from the Oracle Global Customer Support Contacts Directory:**

   `http://www.oracle.com/us/support/contact-068555.html`

2 **Tell Oracle support that you want to make a physical media request (PMR) for the Sun Blade X3-2B.**

- **If you are able to access the specific software release and patch number information from My Oracle Support, provide this information to the support representative.**
- **If you are not able to access the software release information, request the latest platform software release for the Sun Blade X3-2B.**

Installing Updates

The following topics provide information about installing firmware and software updates:

- "Installing Firmware" on page 109
- "Installing Hardware Drivers and OS Tools" on page 109

Installing Firmware

Updated firmware can be installed using one of the following:

- **Oracle Enterprise Manager Ops Center** – Ops Center Enterprise Controller can automatically download the latest firmware from Oracle, or firmware can be loaded manually into the Enterprise Controller. In either case, Ops Center can install the firmware onto one or more servers, blades, or blade chassis.

  For more information, go to:

  `http://www.oracle.com/us/products/enterprise-manager/opscenter/index.html`
- **Oracle System Assistant** – Oracle System Assistant can download and install the latest firmware from Oracle.

  For more information, refer to Setting Up Oracle System Assistant and Updating the Server.
- **Oracle Hardware Management Pack** – The `fwupdate` CLI tool within the Oracle Hardware Management Pack can be used to update firmware within the system.

  For more information, go to:`http://www.oracle.com/pls/topic/lookup?ctx=ohmp`.
- **Oracle ILOM** – Oracle ILOM and BIOS firmware are the only firmware that can be updated using the Oracle ILOM web interface and Oracle ILOM CLI.

  For more information, go to: `http://www.oracle.com/pls/topic/lookup?ctx=ilom31`.

Installing Hardware Drivers and OS Tools

Updated hardware drivers and operating system (OS)-related tools, such as the Oracle Hardware Management Pack, can be installed using one of the following:

- **Oracle Enterprise Manager Ops Center** – For more information, go to:

  `http://www.oracle.com/us/products/enterprise-manager/opscenter/index.html`
- **Oracle System Assistant** – For more information, refer to *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.
- Other deployment mechanisms such as JumpStart, Kickstart or third-party tools.

  For more information, refer to your OS documentation.

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