

Sun Blade™ X6440 Server Module Getting Started Guide

This document contains basic information on setting up the Sun Blade™ X6440 server module hardware, tasks for setting up the server module's service processor and Integrated Lights Out Manager software, and a documentation flowchart that describes the documents you might need when installing the Sun Blade X6440 server module. Detailed installation information can be found in the *Sun Blade X6440 Server Module Installation Guide* (820-3961), which is available online at the Sun documentation web site:

<http://docs.sun.com/app/docs/prod/blade.x6440>

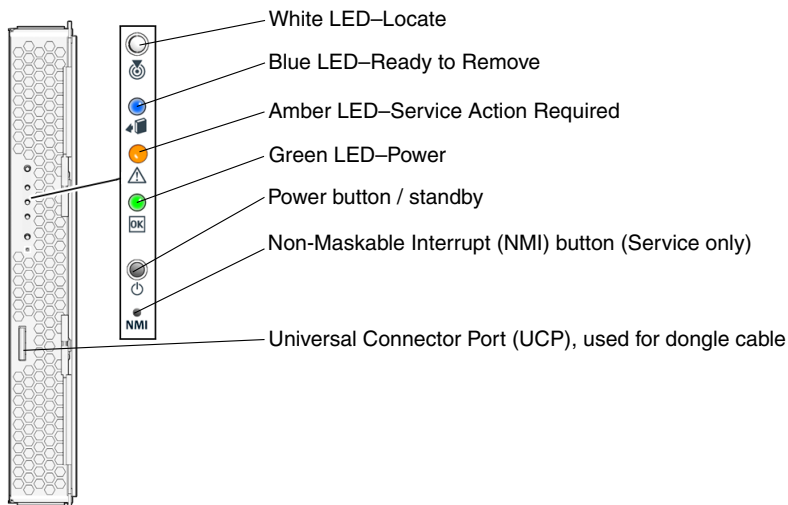
Safety and Compliance Information

Before performing an installation, refer to the following documents for safety information regarding the Sun Blade X6440 server module:

- *Important Safety Information for Sun Hardware Systems* (816-7190): printed document included in the ship kit.
- *Sun Blade X6440 Server Module Safety and Compliance Manual* (820-4412): available online at the Sun documentation web site.

System Overview

The following illustration shows the front panel of the Sun Blade X6440 server module.



Installing the Server Module

Your Sun Blade X6440 server module does not contain hard drives. Instead, it is equipped with a compact flash (CF) card, which you can use to boot a limited number of operating systems and bring the server to an operational state.

Before inserting the server module into the chassis, you must install the CF card. To install or remove the CF card, you must power off the server and remove it from the chassis.

▼ To Install the Compact Flash Card

1. **Set the server module on a flat surface and orient it so that the rear of the service module is facing you.**
You can access the CF card without removing the server's cover. If necessary, remove the top cover.
2. **Insert the CF card into the compact flash slot by pushing the card until it seats and locks into place.**

▼ To Insert the Server Module

1. **Locate the desired server module slot in the chassis.**
2. **(Optional) Remove the slot filler panel, if applicable.**
Pull the lever out and eject the filler panel.
3. **Position the server module vertically so that the ejectors are on the right and extended outward.**
4. **Push the server module into the slot until the server module stops.**
5. **Rotate the ejectors down until they snap into place.**
The server module is now flush with the chassis and the ejectors are locked.

Powering On and Powering Off the Server Module

You only need to apply standby power to the server module at this point so that you can perform initial configuration of the service processor (SP). Procedures for powering on to main power mode and for shutting down from main power mode are also included in this section, for your reference.

▼ To Apply Standby Power for Initial Service Processor Configuration

Use this procedure to apply standby power to the service processor *before* initial configuration.

1. **Connect grounded AC power cords to the AC power connectors on the back panel of the chassis and to grounded AC power outlets. For details, see your chassis documentation.**
In standby power mode, the blue (Ready to Remove) LED is illuminated, indicating that the SP is working.
2. **Continue with initial software setup tasks, as described in [“Setting Up the Server Software”](#).**
At this point, standby power is supplied only to the service processor and power supply fans. Do not apply main power to the rest of the server until you are ready to install a platform operating system.

▼ To Power On Main Power for All Server Module Components

- Use a pointed object or stylus to press the Power button on the front panel of the server module.
The server module powers on and boots. The front panel green LED lights solidly.

▼ To Power Off the Main Power Mode

- Use a pointed object or stylus to press and hold the Power button until the blue (Ready to Remove) LED is illuminated.

The server module is now in standby mode, and you can remove it from the chassis.



Caution – To completely power off the server module, you must disconnect the AC power cords from the back panel of the chassis. This will remove power from all blades in the chassis.

Setting Up the Server Software

This section describes the tasks for initial setup of the server module's service processor and Integrated Lights Out Manager (ILOM) software. Refer to the *Sun Blade X6440 Server Module Installation Guide* (820-3961) and the *Sun Integrated Lights Out Manager 2.0 User's Guide* (820-1188) for detailed instructions on using ILOM to configure and manage the Sun Blade X6440 server module.

Connecting to the ILOM Service Processor

There are three methods for connecting to the ILOM SP to perform initial setup and configuration. Use the procedure that you prefer:

- [“Connecting to ILOM Through the Chassis Serial Connector”](#)
- [“Connecting to ILOM Through a Dongle Cable”](#)
- [“Connecting to ILOM Through the Ethernet Port”](#)

Connecting to ILOM Through the Chassis Serial Connector

Follow these instructions to establish a serial connection to the chassis management module (CMM) ILOM, which provides a command to connect to the server module ILOM.

▼ To Connect to ILOM Through the Chassis Serial Connector

1. **Verify that your terminal, laptop, or terminal server is operational.**
2. **Configure the terminal device or the terminal emulation software to use the following settings:**
 - 8N1: eight data bits, no parity, one stop bit
 - 9600 baud (default, can be set to any standard rate up to 57600)
 - Disable hardware flow control (CTS/RTS)
3. **Connect a serial cable from the serial port on the chassis to a terminal device.**

Refer to the chassis documentation for the location of the serial port.
4. **Press Enter on the terminal device to establish a connection between the terminal device and the CMM ILOM.**
5. **Log in to the ILOM CLI using the default user name, `root`, and the default password, `changeme`.**
6. **Navigate to the server module ILOM by typing this command:**

```
-> cd /CH/BLn/SP/cli
```

Where `n` is 0 through 9 for server modules 0 through 9, respectively.
7. **Type the command `start`.**

8. Type **y** to continue or **n** to cancel.

If you typed **y**, the server module ILOM prompts for its password.

9. Type the default password **changeme**.

The server module ILOM prompt appears. You are now connected to the server module ILOM.

10. Type **exit** when you are done.

The server module ILOM exits and the CMM CLI prompt appears.

Connecting to ILOM Through a Dongle Cable

Follow these instructions to use a dongle cable to connect a terminal directly to the server module ILOM.

▼ To Connect to ILOM Using a Dongle Cable

1. Connect a dongle cable to the server module.

2. Connect a terminal or terminal emulator to the RJ-45 connector on the dongle cable.

The ILOM login prompt appears.

3. Type the user name and password when prompted.

The default user name is **root** and the default password is **changeme**. The server module ILOM prompt appears.

4. When you are done, exit ILOM by typing **exit**.

Connecting to ILOM Through the Ethernet Port

Follow these instructions to establish a connection to ILOM through the Ethernet port. The chassis Ethernet ports support both CLI and web interface connections.

You can connect to ILOM through either the RJ-45 NET MGT 0 Ethernet port or the corresponding network express module (NEM) port.

Before you can use the Ethernet connection, you must know the ILOM's IP address. See ["Configuring the ILOM IP Address"](#).

▼ To Log In to and Out of the ILOM CLI

1. Start an SSH client.

2. To log in to the ILOM CLI, type:

```
$ ssh root@ipaddress
```

Where *ipaddress* is the IP address of the server SP.

3. Log in to the CLI using the default user name, **root**, and the default password, **changeme**.

4. When you are done, exit ILOM by typing **exit**.

▼ To Log In to and Out of the ILOM Web Interface

1. Type the IP address of the ILOM server processor into your web browser.

The ILOM login screen appears.

2. Type the default user name, **root**, and the default password, **changeme**.

3. Click Log In.

The web interface appears.

4. To log out of the web interface, click the Log Out button at the top right of the web interface.

The ILOM log out screen appears.

Configuring the ILOM IP Address

Follow these instructions to view and set the ILOM IP address. You can set the ILOM IP address by using the BIOS Setup utility, DHCP, or manually, by using the CLI. Use the procedure that you prefer.

▼ To View the ILOM IP Address

1. Log in to ILOM using any method described in [“Connecting to the ILOM Service Processor”](#).

To use the Ethernet SSH connection, you must already know the IP address.

2. From the `root` directory, type the CLI command `show /SP/network` to see all IP address-related information; type `show /SP/network/ipaddress` to see only the IP address.

▼ To Configure the ILOM IP Address Using the BIOS Setup Utility

1. Verify that your DHCP server is configured to accept new media access control (MAC) addresses, and that it is connected to either the corresponding NEM port or the RJ-45 NET MGT Ethernet port.

2. Enter the BIOS Setup utility by pressing the F2 key while the system is powering on and performing the power-on self-test (POST).

3. When the BIOS Main menu screen is displayed, select `Advanced` → `IPMI 2.0 Configuration` → `LAN Configuration`.

4. On the LAN Configuration screen, under IP Assignment, select `DHCP` or `Static`.

- If you selected `Static`, fill in the IP address, subnet mask, and default gateway at the bottom of the page. Select `Commit` to save your changes. You are done.
- If you selected `DHCP`, the DHCP server assigns an IP address to the server module ILOM. Continue with Step 5.

5. To view the IP address that DHCP assigned to the server module ILOM, perform the steps described in [“To View the ILOM IP Address”](#).

▼ To Configure the ILOM Address Using DHCP

1. Verify that your DHCP server is configured to accept new media access control (MAC) addresses.

2. Determine the server module ILOM MAC address from one of the following locations:

- **CLI commands via the server module.** The server module has a serial port to which you can attach a terminal device. If you log in to ILOM and type the CLI command `show /SP/network`, ILOM displays the current MAC address.
- **CLI commands via the CMM.** The CMM has a serial port to which you can attach a terminal device. If you log in to the CMM ILOM and type the CLI command `show /CH/BLn/SP/network`, the CMM ILOM displays the current MAC address.
- **Customer Information Sheet.** This document is shipped with your server module.
- **System BIOS Setup screen.** Press F2 during power-on, then choose `Advanced` → `IPMI 2.0 Configuration` → `LAN Configuration` → `MAC Address`.

3. **Connect an Ethernet cable to the network express module (NEM) port corresponding to the server module.**

Refer to your chassis documentation for the location of the NEM port.

4. **Log in to ILOM using either the chassis serial connector or through the Ethernet port.**

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

5. **Type the reset command:**

```
-> reset /SP
```

DHCP automatically assigns ILOM an IP address when the server module restarts.

6. **To view the IP address that DHCP assigned to the server module ILOM, perform the steps described in [“To View the ILOM IP Address”](#).**

▼ To Configure the ILOM IP Address Using the CLI

1. **Connect to the server module ILOM using any of the methods described in [“Connecting to the ILOM Service Processor”](#).**

2. **To view the IP address, type `show /SP/network/ipaddress`.**

3. **To navigate to `/SP/network`, type:**

```
-> cd /SP/network
```

4. **Type the following commands, using your own addresses in place of the examples below:**

- To configure a static Ethernet configuration, type:

```
-> cd /SP/network
```

```
-> set pendingipaddress=129.144.82.26
```

```
-> set pendingipnetmask=255.255.255.0
```

```
-> set pendingipgateway=129.144.82.254
```

```
-> set pendingipdiscovery=static
```

```
-> set commitpending=true
```

- To configure a dynamic Ethernet configuration, type:

```
-> cd /SP/network
```

```
-> set pendingipdiscovery=dhcp
```

```
-> set commitpending=true
```

5. **To log out of ILOM, type `exit`.**

Setting Up Platform Operating System and Driver Software

After configuring the server module ILOM network settings, you can configure a preinstalled operating system or install a supported Solaris, Linux, or Windows platform operating system and drivers. For more information and instructions, see the following documents.

- If your server contains a preinstalled operating system, refer to the *Sun Blade X6440 Server Module Installation Guide* (820-3961) for instructions on configuring the preinstalled OS on your server.
- For details about installing a supported Solaris, Windows, or Linux OS and the required drivers, refer to the *Sun Blade X6440 Server Module Operating System Installation Guide* (820-3962), or the *Sun Blade X6440 Server Module Windows Operating System Installation Guide* (820-3963).

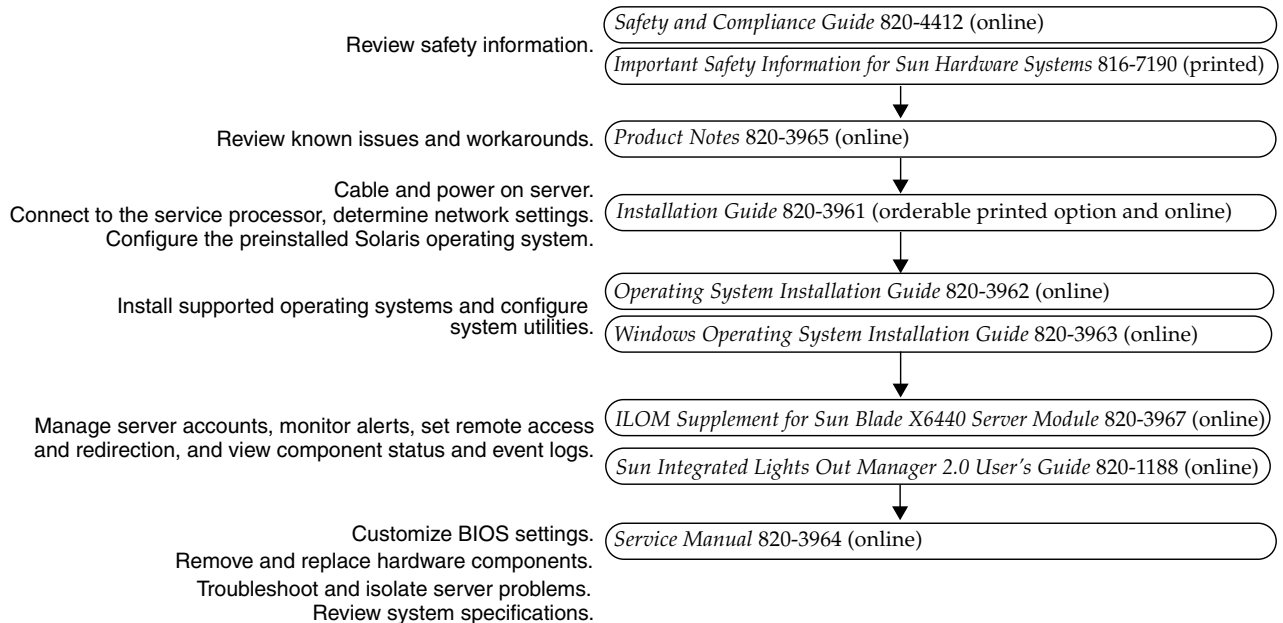
Accessing Sun Blade X6440 Server Module Documentation

The flowchart below lists the documentation in the approximate order of the tasks that you might perform when installing a new system. Review the tasks on the left, then refer to the corresponding documents on the right. You can find the most up-to-date versions of all the documents at the Sun documentation web site:

<http://docs.sun.com/app/docs/prod/blade.x6440>

Note – Documents that are designated as orderable printed options are not automatically included with the system. These documents must be specified as options when ordering the system. This documentation is also available on the product documentation web site.

For this task... Refer to this document



Sun Online

Viewing Current Documentation

To see the most current version of a document, search for the Sun Blade X6440 server module on this web site:

<http://docs.sun.com/>

The product documentation web site contains the most recent information. For critical updates to product information, see the product notes or release notes. To verify whether a document is more recent than the document that you have, refer to the final two digits of the part number for that document. (For example, XXX-XXXX-12 is newer than XXX-XXXX-10.)

Translated versions of some documents are available at: <http://docs.sun.com>

Select a language from the drop-down list and navigate to the Sun Blade X6440 server module document collection. Available translations for the Sun Blade X6440 server module documentation include Simplified Chinese, Traditional Chinese, French, Japanese, and Korean. English documentation is revised more frequently and might be more up-to-date than the translated documentation.

Contacting Sun Technical Support

If you have technical questions about this product that are not answered in this document, go to:

<http://www.sun.com/service/contacting>

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