



# Sun Integrated Lights Out Manager Supplement for the Sun Fire™ X4450 Server

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# Contents

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**Preface** v

**ILOM Procedures** 1

Upgrading Your Firmware 1

Resetting the Root ILOM Password 1

▼ Resetting the Password from the BIOS 2

▼ Resetting the Password Using the J33 Jumper 2

**Sun Fire X4450 Server ILOM 2.0 Supplement** 3

ILOM 2.0 Features Supported 3

Sensors Reference Information 4

Power Supply Sensors 4

Temperature Sensors 5

Voltage Sensors 6

Fan Sensors 7

NMI Button Sensor 8

Disk Drive (HDD) Sensors 8

Fault LEDs 9



# Preface

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The *Sun Integrated Lights Out Manager Supplement for the Sun Fire X4450 Server* contains information about Integrated Lights Out Manager (ILOM) 2.0 that is specific to the Sun Fire™ X4450 server.

For a complete discussion of ILOM 2.0 and its capabilities along with user procedures, see the *Sun Integrated Lights Out Manager 2.0 User's Guide*, the *Addendum to the Sun Integrated Lights Out Manager 2.0 User's Guide*, and the *Sun Fire X4450 Server Product Notes*.

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## Related Documentation

The document set for the Sun Fire X4450 server is described in the *Where To Find Sun Fire X4450 Server Documentation* sheet that is packed with your system. You can also find the documentation at <http://docs.sun.com>.

Translated versions of some of these documents are available at <http://docs.sun.com>. Select a language from the drop-down list and navigate to the Sun Fire X4450 server document collection using the Product category link. Available translations include Simplified Chinese, French, and Japanese.

English documentation is revised more frequently and might be more up-to-date than the translated documentation. For all Sun documentation, go to <http://docs.sun.com>.

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# Typographic Conventions

Typeface*	Meaning	Examples
AaBbCc123	The names of commands, files, and directories; onscreen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. % You have mail.
<b>AaBbCc123</b>	What you type, when contrasted with onscreen computer output	% <b>su</b> Password:
<i>AaBbCc123</i>	Book titles, new words or terms, words to be emphasized. Replace command-line variables with real names or values.	Read Chapter 6 in the <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be superuser to do this. To delete a file, type <code>rm filename</code> .

\* The settings on your browser might differ from these settings.

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# ILOM Procedures

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This chapter documents the following ILOM 2.0 procedures that are specific to the Sun Fire X4450 server.

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## Upgrading Your Firmware

If you have not upgraded your system to ILOM, refer to *ELOM-to-ILOM Migration User's Guide* (820-4930).

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## Resetting the Root ILOM Password

If the password for the ILOM “root” user is lost, you can reset it to the factor default (“changeme”) using either of the following procedures.

- [“Resetting the Password from the BIOS” on page 2.](#)
- [“Resetting the Password Using the J33 Jumper” on page 2.](#)

## ▼ Resetting the Password from the BIOS

This procedure uses the BIOS configuration screens to reset the ILOM “root” password. For more information on the BIOS configuration screens refer to the “BIOS Screens” appendix in the *Sun Fire X4450 Server Service Manual*.

1. **Reboot the system.**
2. **When the Power-On Self Test (POST) screen appears, press F2 and wait for the BIOS configuration screen to appear.**
3. **Navigate to the Server tab and choose “Set AST2000 LAN Configuration.”**
4. **On the LAN Configuration screen, choose “Reset BMC Password”. You will be asked to confirm the reset.**
5. **Press F10 to save and exit.**

The system reboots. The ILOM “root” password is now “changeme”.

## ▼ Resetting the Password Using the J33 Jumper

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**Note** – This procedure also clears any BIOS password.

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When the system is powered on with the J33 jumper in place, the root ILOM password is set to the factory default (“changeme”) and any BIOS password is cleared. The procedure for resetting the password is as follows. Power down the system.

6. **Put the J33 jumper in place.**
7. **Boot the system once with the jumper in place.**
8. **Power the system down.**
9. **Remove the J33 jumper.**

For more details, including instructions on installing and removing the jumper, refer to the chapter on “Servicing Motherboard Components” in the *Sun Fire X4450 Server Service Manual*.

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**Note** – If you leave the J33 jumper in place, the system will reset the ILOM root password and clear the BIOS root password on every boot.

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# Sun Fire X4450 Server ILOM 2.0 Supplement

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This supplement provides platform-specific information related to ILOM 2.0 running on a Sun Fire X4450 server.

The following topics are covered in this supplement:

- [“ILOM 2.0 Features Supported” on page 3](#)
- [“Sensors Reference Information” on page 4](#)

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## ILOM 2.0 Features Supported

The Sun Fire X4450 server supports the entire ILOM 2.0 feature set except for the delayed BIOS upgrade.

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# Sensors Reference Information

The server includes a number of sensors that generate entries in the system event log (SEL) when they cross a threshold. Many of the sensor readings are used to adjust the fan speeds and perform other actions, such as illuminating LEDs and powering off the server.

This section describes the following sensors:

- “Power Supply Sensors” on page 4
- “Temperature Sensors” on page 5
- “Voltage Sensors” on page 6
- “Fan Sensors” on page 7
- “Disk Drive (HDD) Sensors” on page 8
- “Fault LEDs” on page 9

## Power Supply Sensors

TABLE 2-1 lists the power supply sensors.

The system normally has two power supply modules, PS0 and PS1. All sensors are located under `/SYS/PSN` except for `/SYS/VPS`.

For example, `/SYS/PS0/PRSNT` is the power supply 0 presence indicator.

**TABLE 2-1** Power Supply Sensors

Sensor Name	Description
<code>/SYS/VPS</code>	Power supply output (watts). <ul style="list-style-type: none"><li>• upper_nonrecov_threshold - 1350 Watts</li><li>• upper_critical_threshold - 1220 Watts</li><li>• upper_noncritical_threshold - 1080 Watts</li></ul>
<code>PSn/PRSNT</code>	Power supply 0 or 1, present or not present.
<code>PSn/VINOK</code>	Asserted when input voltage is OK.
<code>PSn/PWROK</code>	Asserted when power level is OK.

**TABLE 2-1** Power Supply Sensors

Sensor Name	Description
PSn/V_IN	Input voltage level. <ul style="list-style-type: none"><li>• upper_nonrecov_threshold - 280.00 Volts</li><li>• upper_critical_threshold - 270.00 Volts</li><li>• upper_noncritical_threshold - 260.00 Volts</li><li>• lower_noncritical_threshold - 90.00 Volts</li><li>• lower_critical_threshold - 80.00 Volts</li><li>• lower_nonrecov_threshold - 70.00 Volts</li></ul>
PSn/I_IN	Input current (amps).
PS0/V_OUT	Output voltage level. <ul style="list-style-type: none"><li>• upper_nonrecov_threshold - 16.00 Volts</li><li>• upper_critical_threshold - 14.96 Volts</li><li>• upper_noncritical_threshold - 14.00 Volts</li><li>• lower_noncritical_threshold - 10.00 Volts</li><li>• lower_critical_threshold - 8.96 Volts</li><li>• lower_nonrecov_threshold - 8.00 Volts</li></ul>
PSn/I_OUT	Output current (amps).
PSn/IN_POWER	Input power (watts).
PSn/OUT_POWER	Output power (watts).

## Temperature Sensors

[TABLE 2-2](#) lists the temperature sensors.

Temperature sensors report on temperature conditions in the motherboard and the chassis.

**TABLE 2-2** Temperature Sensors

Sensor Name	Description
ACPI	Power state (ON or OFF) When asserted, firmware upgrades are not possible.
MB/T_AMB $n$	Motherboard temperature sensor $n$ ( $n = 0$ through 3). <ul style="list-style-type: none"> <li>• upper_critical_threshold - 65.00 degree C</li> <li>• upper_noncritical_threshold - 60.00 degree C</li> </ul>
T_AMB	Chassis temperature sensor. <ul style="list-style-type: none"> <li>• upper_nonrecov_threshold - 50.00 degree C</li> <li>• upper_critical_threshold - 45.00 degree C</li> </ul>
MB/T_DIMM $n$	DIMMs temperature sensor $n$ ( $n = 0$ through 3). <ul style="list-style-type: none"> <li>• upper_critical_threshold - 95.00 degree C</li> <li>• upper_noncritical_threshold - 90.00 degree C</li> </ul>

## Voltage Sensors

TABLE 2-3 lists the voltage sensors.

Voltage sensors report various voltage levels within the system. Most include upper and lower critical and non-recoverable thresholds.

**TABLE 2-3** Voltage Sensors

Sensor Name	Description
MB/V_+12V	12V power supply level. <ul style="list-style-type: none"> <li>• upper_critical_threshold - 13.91 Volts</li> <li>• lower_critical_threshold - 10.32 Volts</li> </ul>
MB/V_VTT	VTT voltage level. <ul style="list-style-type: none"> <li>• upper_critical_threshold - 1.39 Volts</li> <li>• lower_critical_threshold - 1.03 Volts</li> </ul>
MB/V_+1V5	1.5V power supply level. <ul style="list-style-type: none"> <li>• upper_critical_threshold - 1.72 Volts</li> <li>• lower_critical_threshold - 1.27 Volts</li> </ul>
MB/V_+3V3	3V power supply level. <ul style="list-style-type: none"> <li>• upper_critical_threshold - 3.81 Volts</li> <li>• lower_critical_threshold - 2.82 Volts</li> </ul>

**TABLE 2-3** Voltage Sensors

Sensor Name	Description
MB/V_+5V	5V power supply level. <ul style="list-style-type: none"><li>• upper_critical_threshold - 5.94 Volts</li><li>• lower_critical_threshold - 4.40 Volts</li></ul>
MB/V_+3V3STBY	3V standby power level. <ul style="list-style-type: none"><li>• upper_critical_threshold - 3.78 Volts</li><li>• lower_critical_threshold - 2.80 Volts</li></ul>
MB/V_+1V5STBY	5V standby power level. <ul style="list-style-type: none"><li>• upper_critical_threshold - 1.716 Volts</li><li>• lower_critical_threshold - 1.271 Volts</li></ul>
MB/V_+1V8	1.8V voltage level. <ul style="list-style-type: none"><li>• upper_critical_threshold - 2.27 Volts</li><li>• lower_critical_threshold - 1.68 Volts</li></ul>
MB/Pn/PRSNT	Processor 0 to 3 present.
MB/Pn/V_VCC	VCC voltage level.
MB/Pn/TCCAT	Number of degrees that the CPU temperature is from the system initiating CPU cooling action.

## Fan Sensors

[TABLE 2-4](#) lists the temperature sensors.

Fan sensors report the conditions of the system fans. For all fan sensors:

- $FBn$  is fan board 0 or 1.
- $FMn$  is fan module 0 or 1 on  $FB0$ .
- $Fn$  is a fan 0 or 1 on the fan module.

For example:

FP0/FM1/F0/TACH is the speed for fan board 0, fan module 1, Fan 0.

**TABLE 2-4** Fan Sensors

Sensor Name	Description
FB <i>n</i> /PRSNT	Fan board 0 or 1 present.
FB <i>n</i> /FM <i>n</i> /PRSNT	Fan module 0 or 1 present.
FB <i>n</i> /FM <i>n</i> /F <i>n</i> /TACH	Fan speed for fan 0 or 1. <ul style="list-style-type: none"><li>• lower_critical_threshold - 2400.00 RPM</li><li>• lower_nonrecov_threshold - 2000.00 RPM</li></ul>

## NMI Button Sensor

[TABLE 2-5](#) lists the temperature sensors.

The NMI button sensor reports the presence of the NMI button on the system.

**TABLE 2-5** NMI Button Sensors

Sensor Name	Description
NMI.BTN	NMI button present.

## Disk Drive (HDD) Sensors

[TABLE 2-6](#) lists the temperature sensors.

Disk drive sensors report the presence and state of hard disk drives (HDDs) on the disk backplane (DBP).

**TABLE 2-6** Hard Disk Drive (HDD) Sensors

Sensor Name	Description
DBP/PRSNT	Disk backplane is present.
DBP/HDD <i>n</i> /PRSNT	Hard drive (HDD) is present.
DBP/HDD <i>n</i> /STATE	Hard drive (HDD) state.

# Fault LEDs

TABLE 2-7 lists the temperature sensors.

Fault LEDs indicate problems with the system. They can cause the front panel LEDs to light.

**TABLE 2-7** Fault LEDs.

<b>Sensor Name</b>	<b>Description</b>
<i>PSn/CUR_FAULT</i>	Deasserted when input current level is OK.
<i>PSn/VOLT_FAULT</i>	Deasserted when voltage levels are OK.
<i>PSn/FAN_FAULT</i>	Deasserted when power supply fan is faulty OK.
<i>PSn/TEMP_FAULT</i>	Deasserted when power supply temperature is OK.

