

Sun Fire X4170 M2 and X4270 M2 Servers Product Notes

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Using This Documentation

- **Overview:** Provides information about supported software and firmware, new features, and important operating guidelines for the Sun Fire X4170 M2 and X4270 M2 Servers
- **Audience:** These product notes are intended for system administrators, network administrators, and service technicians.
- **Required knowledge:** Users should have an advanced understanding of server systems.

Product Documentation Library

Documentation and resources for these products and related products are available at <https://docs.oracle.com/cd/E19762-01/> and <https://docs.oracle.com/cd/E19245-01/>.

Feedback

Provide feedback about this documentation at <https://www.oracle.com/goto/docfeedback>.

Sun Fire X4170 M2 and X4270 M2 Servers

Product Notes

For the most updated information about supported firmware and operating systems, important operating notes, and known issues, refer to the latest product notes, which are available at <http://docs.oracle.com/cd/E19245-01>.

These product notes include the following information.

Description	Links
Review supported firmware revisions.	“Supported Firmware Versions” on page 9
Check the latest versions of code used in BIOS firmware.	“Versions of Intel Microcode and Reference Code Used in the BIOS Firmware” on page 10
Review supported operating systems.	“Supported Operating Systems” on page 11
Review important operating notes.	“Important Operating Notes” on page 12
Locate the documentation library for this product.	“Documentation for Sun Fire X4170 M2 and X4270 M2 Servers” on page 20
Review known issues.	“Known Issues” on page 20
Review resolved issues.	“Resolved Issues” on page 45
Download the latest firmware and software updates.	“Getting Server Firmware and Software” on page 49

Supported Firmware Versions

The following table identifies the Oracle Integrated Lights Out Manager (Oracle ILOM) and BIOS firmware versions that are supported for Release 1.0 and later.

Release Version	Oracle ILOM SP Firmware Version	BIOS Firmware Version
1.10.1	3.2.11.20.b	08.14.01.12
1.9.1	3.2.9.22	08.14.01.12
1.9	3.2.8.21	08.14.01.12

Versions of Intel Microcode and Reference Code Used in the BIOS Firmware

Release Version	Oracle ILOM SP Firmware Version	BIOS Firmware Version
1.8	3.2.7.30.a	08.14.01.12
1.7.7	3.1.2.54	08.14.01.11
1.7.6	3.1.2.52	08.14.01.11
1.7.5	3.1.2.20.g	08.14.01.09
1.7.4	3.1.2.20.f	08.14.01.09
1.7.3.1	3.1.2.20.e	08.14.01.05
1.7.3	3.1.2.20.c	08.14.01.05
1.7.2	3.1.2.20.a	08.14.01.03
1.7.1	3.1.2.20.a r79988	08.14.01.03
1.7	3.1.2.20	08.14.01.01
1.6.1	3.0.16.10.d	8.12.01.04
1.6	3.0.16.10.c	08.12.01.03
1.5.1	3.0.16.10.b	08.10.01.02
1.5	3.0.16.10.a	08.10.01.02
1.4	3.0.16.10	08.08.01.02
1.3.2	3.0.14.11.b	08.06.01.08
1.3.1	3.0.14.11.a	08.06.01.08
1.3	3.0.14.11	08.06.01.08
1.2.3	3.0.9.27.c (r60665)	08.04.03.01
1.2.2	3.0.9.27.b (r60221)	08.04.03.01
1.2	3.0.9.27 (r58107)	08.04.01.10
1.1	3.0.9.22	08.03.01.03
1.0	3.0.9.15	08.01.04.05

Versions of Intel Microcode and Reference Code Used in the BIOS Firmware

The following table lists the versions of the Intel Microcode and Reference Code used in the BIOS firmware image for Release 1.0 and later.

Intel Software	Versions Used in 1.0 and 1.1	Versions Used In 1.2	Versions Used In 1.2.x	Versions Used In 1.3, 1.3.x, 1.4, 1.5, 1.6, 1.6.x, 1.7, 1.7, 1.8, 1.9.1, 1.10.1
Intel CPU Microcode	SRV_C_87	SRV_C_89	SRV_C_89	SRV_C_89
Intel RC	p2.70	2.90	2.90	2.93

Intel Software	Versions Used in 1.0 and 1.1	Versions Used In 1.2	Versions Used In 1.2.x	Versions Used In 1.3, 1.3.x, 1.4, 1.5, 1.6, 1.6.x, 1.7, 1.7, 1.8, 1.9.1, 1.10.1
Intel CPU Reference Code	1.06	1.08	1.08	1.08
Intel QuickPath Interconnect (QPI) Reference Code	1.85	1.8	1.85	1.85
Intel Memory Reference Code (MRC)	2.11	2.20	2.20	2.12

Supported Operating Systems

The following operating systems are supported for use with the Sun Fire X4170 M2 and X4270 M2 Servers:

- Oracle Linux 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11, 6.0, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, and 7 (64-bit)
- Oracle Unbreakable Enterprise Kernel for Linux
- Oracle VM 2.2.1, 2.2.2, 3.0.1, 3.0.2, 3.0.3, 3.1.1, 3.2, and 3.3
- Oracle Solaris 11 11/11
- Oracle Solaris 10 10/09, Oracle Solaris 10 9/10, and Oracle Solaris 10 8/11
- Windows Server 2008 SP2 (64-bit)
- Windows Server 2008 R2 SP1
- Windows Server 2008 R2
- Red Hat Enterprise Linux (RHEL) 5.5, 5.6, 5.7, 5.8, 6.0, 6.1, and 6.2 (64-bit)
- SUSE Linux Enterprise Server (SLES) 10 SP3 and SP4 (64-bit)
- SUSE Linux Enterprise Server (SLES) 11 (64-bit) and SLES 11 SP1 and SP2 (64-bit)
- VMware ESX and ESXi 4.0 Update 2 and later
- VMware ESX and ESXi 4.1 and later
- VMware ESXi 5.0 and later

For installation instructions for the operating systems listed above, refer to:

- *Sun Fire X4170 M2 and X4270 M2 Servers Installation Guide for Linux, Virtual Machine Software, and Oracle Solaris Operating Systems*
- *Sun Fire X4170 M2 and X4270 M2 Servers Installation Guide for Windows Operating Systems*

Note - The Oracle Solaris 10 operating system and Oracle VM software are both available as preinstalled options on a server disk drive. For configuration instructions for these preinstalled options, refer to the *Sun Fire X4170 M2 and X4270 M2 Servers Installation Guide*.

Downloading an OS or Software Applications

You can download an operating system (OS) or software applications for all licensed Oracle products from Oracle Software Delivery Cloud (formerly called Oracle eDelivery). Software is available in zip and ISO formats, which you can unzip or burn to DVDs, respectively. All of the download links on the Oracle Technology Network (OTN) point to the Software Delivery Cloud, making this site the authoritative source for all Oracle OS and application downloads. To access Oracle Software Delivery Cloud, go to <https://edelivery.oracle.com>

Important Operating Notes

This section includes important operating information and requirements for the Sun Fire X4170 M2 and X4270 M2 Servers.

- [“Software and Critical Patch Updates” on page 12](#)
- [“Hardware Important Operating Notes” on page 14](#)
- [“Oracle ILOM Deprecation Notices and Important Operating Notes” on page 16](#)
- [“Oracle ILOM Important Operating Notes” on page 17](#)
- [“Power Management Important Operating Notes” on page 19](#)

Software and Critical Patch Updates

- [“Server Security, Software Releases, and Critical Patch Updates” on page 12](#)

Server Security, Software Releases, and Critical Patch Updates

To ensure continued security of your system, Oracle strongly recommends that you apply the latest Software Releases. Server Software Releases include Oracle ILOM, BIOS, and other

firmware updates, often referred to as “patches.” Oracle publishes these patches regularly on the My Oracle Support site. Applying these patches will help ensure optimal system performance, security, and stability. You can identify the latest Software Release for your system at <https://www.oracle.com/technetwork/systems/patches/firmware/release-history-jsp-138416.html>.

To download a Software Release, go to My Oracle Support at <https://support.oracle.com>.

Oracle notifies customers about security vulnerability fixes for all its products four times a year through the Critical Patch Update (CPU) program. Customers should review the CPU advisories to ensure that the latest software release updates are applied to their Oracle products. Note that updates for Engineered Systems will be specifically published for a specific Engineered Systems product (that is, you need not look at specific updates for individual software components included in your Engineered System). For more information about the Oracle CPU program, go to <https://www.oracle.com/technetwork/topics/security/alerts-086861.html>.

Oracle also recommends that you update to the latest operating system release when it becomes available. Although a minimum operating system release is supported, updating to the latest OS release will ensure that you have the most up-to-date software and security patches. To confirm that you have the latest OS release, refer to the Oracle Hardware Compatibility Lists. See “Supported Operating Systems” on page 11.

For details about the current system software update, see “Important – Install Latest OS Updates, Patches, and Firmware” on page 13

▼ Important – Install Latest OS Updates, Patches, and Firmware

System software release 1.10.1 is associated with system firmware version 3.2.11.20.b. Newer system firmware versions have a higher number or letter added. For example, a future software release might be associated with system firmware version 3.2.11.20.c.

Some product features are enabled only when the latest versions of patches and firmware are installed. To retain optimal system performance, security, and stability, you must install the latest operating system, patches, and firmware. For further information, see “Getting Server Firmware and Software Updates” in the *Sun Fire X4170 M2 and X4270 M2 Servers Installation Guide*.

To verify that the firmware is a minimum of 3.2.11.20.b or newer:

1. **Use Oracle ILOM to check the system firmware version.**
 - From the web interface, click System Information → Summary, then view the property information for the System Firmware Version in the General Information table.

- From the CLI, at the command prompt (->) type: `show /System/Firmware`
For more details, refer to information about viewing system information and inventory in your server administration guide, which is available at <http://www.oracle.com/goto/x86admindiag/docs>.
- 2. **Ensure that the firmware version is at the minimum required version, noted above, or a subsequent release, if available.**
- 3. **If the required firmware version (or newer) is not installed:**
 - a. **Download the firmware from My Oracle Support at <https://support.oracle.com>. For more information, see [Broken Link \(Target ID: GQCYZ\)](#).**
 - b. **Install the downloaded firmware.**
Refer to the information about performing firmware updates in the *Oracle ILOM Administrators Guide for Configuration and Maintenance*, which is available at <https://www.oracle.com/goto/ilom/docs>. Ensure that you perform the preparatory steps described in that document before updating the firmware.

Note - Occasionally after installing the firmware, the Oracle ILOM web interface cannot display the power state correctly on the power control page. To correct this problem, clear your browser cache before logging in to the Oracle ILOM web interface.

Hardware Important Operating Notes

- [“SP Might Reboot Under Heavy Workload ” on page 14](#)
- [“Diagnosing SAS Data Path Failures on Servers Using MegaRAID Disk Controllers” on page 15](#)

SP Might Reboot Under Heavy Workload

The service processor (SP) on the Sun Fire X4170 M2 Server or Sun Fire X4270 M2 Server might reboot under a heavy workload due to lack of memory caused by a Sun Fire X4170 M2/ X4270 M2 Oracle ILOM memory limitation.

To prevent SP reboots from occurring when upgrading to Oracle ILOM 3.2.x.x, or later (or to prevent SP reboots on a system already upgraded to Oracle ILOM 3.2.x.x, or later), follow these guidelines:

1. When running the Oracle ILOM Snapshot utility, run the fewest number of command-line interface (CLI) or web interface sessions necessary. Keep only one interface session running, and ideally, run the Snapshot utility using the CLI. Do not run multiple tasks concurrently in different interface sessions.
2. If you need to run multiple interface sessions, run up to a maximum of five sessions. The five-session limitation can include all CLI sessions, four CLI sessions with one web interface session, or four CLI sessions with one Remote System Console session. Avoid running or trying to open more than one web interface session or more than one Remote System Console session simultaneously with the CLI sessions.
3. When updating Oracle ILOM, use the `load -source PKG_URL` CLI command with the `PKG_URL` as a TFTP/FTP/SFTP-based protocol. Do not use an HTTP/HTTPS protocol in the package URL, if possible. Avoid updating Oracle ILOM using the web interface by uploading a package file or providing a `PKG_URL`. If the Oracle ILOM update fails, Oracle ILOM will boot into Preboot. Use the CLI `net flash` command to rescue the update with the flash file in the release:
 - a. Use the `net config` command to set `ipdiscovery`, `managementport`, and other configurations. (You can list the configuration parameters using the `show` command.)
 - b. Use the `net dhcp` command to obtain the IP address if `ipdiscovery` is configured as DHCP.
 - c. Use the `net flash TFTP-server-IP-address path-to-flash-file` command to flash Oracle ILOM.

Diagnosing SAS Data Path Failures on Servers Using MegaRAID Disk Controllers

On Oracle x86 servers using MegaRAID disk controllers, Serial Attached SCSI (SAS) data path errors can occur. To triage and isolate a data path problem on the SAS disk controller, disk backplane (DBP), SAS cable, SAS expander, or hard disk drive (HDD), gather and review the events in the disk controller event log. Classify and analyze all failure events reported by the disk controller based on the server SAS topology.

To classify a MegaRAID disk controller event:

- Gather and parse the MegaRAID disk controller event logs either by running the automated `sundiag` utility or manually using the `MegaCLI` or `StorCLI` commands.
 - For Oracle Exadata Database Machine database or storage cell servers, run the `sundiag` utility.
 - For the Sun Fire X4170 M2 and X4270 M2 Servers, use the `MegaCLI` command.

For example, manually gather and parse the controller event log by using the `MegaCLI` command. At the root prompt, type:

```
root# ./MegaCli64 adpEventLog getevents -f event.log aall
Success in AdpEventLogExit
Code: 0x00
```

Note - Use the existing name of the event log as the name for the disk controller event log. This produces a MegaRAID controller event log with the given file name event . log.

The following SCSI sense key errors found in the event log in SAS data path failures indicate a SAS data path fault:

```
B/4B/05 :SERIOUS: DATA OFFSET ERROR
B/4B/03 :SERIOUS: ACK/NAK TIMEOUT
B/47/01 :SERIOUS: DATA PHASE CRC ERROR DETECTED
B/4B/00 :SERIOUS: DATA PHASE ERROR
```

A communication fault between the disk and the host bus adapter causes these errors. The presence of these errors, even on a single disk, means there is a data path issue. The RAID controller, SAS cables, SAS expander, or disk backplane might be causing the interruption to the communication in the path between the RAID controller and the disks.

Oracle Service personnel can find more information about the diagnosis and triage of hard disk and SAS data path failures on x86 servers at the My Oracle Support web site: <https://support.oracle.com>. Refer to the Knowledge Article Doc ID 2161195.1. If there are multiple, simultaneous disk problems on an Exadata server, Oracle Service personnel can refer to Knowledge Article Doc ID 1370640.1.

Oracle ILOM Deprecation Notices and Important Operating Notes

- [“Deprecation Notice for IPMI 2.0 Management Service ” on page 16](#)
- [“Deprecation Notice for Default Self-Signed Certificate” on page 17](#)

Deprecation Notice for IPMI 2.0 Management Service

Present Behavior: IPMI 2.0 Management Sessions - Enabled (default). Support for IPMI 2.0 client interfaces.

Future Behavior: The following IPMI Management Service changes will occur in future Oracle ILOM firmware releases after firmware version 3.2.7.

- First feature change: Oracle ILOM will add a new client interface as an alternative to the IPMI 2.0 Client interface.
- Second feature change: The default configuration property for IPMI 2.0 Sessions will change from Enabled to Disabled in a future release. Clients relying on IPMI 2.0 will be unable to communicate with Oracle ILOM unless the configuration property for IPMI 2.0 Sessions is manually enabled.
- Third feature change: Removal of IPMI 2.0 client support. IPMI 2.0 clients will no longer be able to communicate with Oracle ILOM.

For information about IPMI Management Service support in Oracle ILOM, refer to the latest firmware release information in the *Oracle ILOM Feature Updates and Release Notes for Firmware 3.2.x* or the *Oracle ILOM Protocol Management Reference for SNMP and IPMI Firmware Release 4.0.x*. To access these documents, go to <https://www.oracle.com/goto/ilom/docs>.

Deprecation Notice for Default Self-Signed Certificate

Present Behavior: An earlier version of the default SSL self-signed certificate is provided by Oracle ILOM.

Future Behavior: A newer version of the default SSL self-signed certificate will be provided in a future Oracle ILOM firmware release.

Impact to Customer Configuration:

After updating to a future firmware release, users connecting to Oracle ILOM through the web interface will need to accept a newer version of the default SSL self-signed certificate that is provided by Oracle ILOM. Customer provided SSL certificates will not be impacted by this change.

For information about the SSL self-signed certificate that is provided by Oracle ILOM, refer to the latest firmware release information in the *Oracle ILOM Feature Updates and Release Notes for Firmware 3.2.x* or the *Oracle ILOM Administrator's Guide for Configuration and Maintenance Firmware Release 4.0.x*. To access these documents, go to <https://www.oracle.com/goto/ilom/docs>.

Oracle ILOM Important Operating Notes

- [“Oracle ILOM Enhancement Allows Enabling IPv4 only, IPv6 only, or Dual Stack” on page 18](#)
- [“Ensuring Successful File Transfers from Oracle ILOM” on page 19](#)

Oracle ILOM Enhancement Allows Enabling IPv4 only, IPv6 only, or Dual Stack

Oracle ILOM's standard network connectivity features support the ability to configure an IPv4 network connection or a dual-stack (IPv4 and IPv6) network connection. Oracle ILOM's enhanced network connectivity properties support the ability to configure a static IPv6 gateway address and any of the following type of network connections: *IPv4 only*, *IPv6 only*, or *dual-stack (IPv4 and IPv6 enabled)*.

The following web and command-line interface (CLI) instructions provide details for viewing and modifying the network settings that are assigned to the SP.

To modify the SP network settings from the Oracle ILOM web interface, do the following:

1. Log in to Oracle ILOM as an Administrator.
2. Click ILOM Administration > Connectivity > Network.
3. Modify the settings on the Network Settings page as required.

For further details about how to configure the properties on the Network Settings page, click the *More Details* link.

4. Click Save to save your network property changes in Oracle ILOM.

Note - All user sessions on the SP are terminated upon modifying and saving IP network property changes. To log back in to Oracle ILOM, use the newly assigned service processor IP address.

To modify the SP network settings from the Oracle ILOM CLI, do the following:

1. Log in to Oracle ILOM as an Administrator.
2. To view the assigned IPv4 and IPv6 network settings on the SP, perform the following:

For IPv4, type: `show /SP/network`

For IPv6, type: `show /SP/network/ipv6`

3. To view the descriptions about each IPv4 and IPv6 network property, perform the following:

For IPv4, type: `help /SP/network`

For IPv6, type: `help /SP/network/ipv6`

4. To modify the IPv4 and IPv6 network properties on the SP, issue the set command.

IPv4 Example:

```
set /SP/network state=enabled|ipv4-only|ipv6-only|disabled pendingipdiscovery=static|
dhcp pendingipaddress=value pendingipgateway=value pendingipnetmask=value
```

IPv6 Example:

```
set /SP/network/ipv6 state=enabled|disabled
pending_static_ipaddress=value/subnet_mask_value pending_static_ipgatewayaddress=value
```

Note - A dual-stack network connection is enabled when both the IPv4 and IPv6 State properties are set to enabled. By default, Oracle ILOM arrives out-of-the-box with network settings enabled for a dual stack (IPv4 and IPv6) network connection. If the IPv4 State property is enabled (/SP/network state=enabled) and the IPv6 State property is disabled (/SP/network/ipv6 state=disabled), Oracle ILOM will support an IPv4-only network connection.

5. To commit the pending network changes (IPv4 or IPv6) in Oracle ILOM, type:

```
set /SP/network commitpending=true
```

Note - All user sessions on the SP are terminated upon modifying and saving IP network property changes. To log back in to Oracle ILOM, use the newly assigned service processor IP address.

Ensuring Successful File Transfers from Oracle ILOM

Do not use the # ; and ? special characters in the password of a target host. If the target host password includes these special characters, file transfers fail from Oracle ILOM to the target host when using Uniform Resource Identifier (URI) to perform the file transfer. Examples of these file transfers include using host storage redirection, and backing up and restoring BIOS and SP configurations. To ensure successful file transfers between Oracle ILOM and a target host, remove these special characters from the target host password.

Power Management Important Operating Notes

Reset Takes a Long Time and Causes the Server to Power Cycle Due to Delayed BIOS Update

If you have a pending BIOS upgrade, a routine reset takes longer than expected and causes your server to power cycle and reboot several times. This is expected behavior, as it is necessary to power cycle the server to upgrade the BIOS firmware. If the upgrade includes an FPGA update, it can take as long as 26 minutes to complete.

A pending BIOS upgrade exists when the following conditions are true:

- You update the BIOS and service processor firmware using Oracle ILOM.
- You select the Delay BIOS Upgrade option.



Caution - Firmware corruption and server down time. If you reboot the server expecting a routine server reset and instead initiate a (delayed) BIOS upgrade, wait until the upgrade is finished. Do not interrupt the process, as this can result in corrupted firmware and server down time.

For details on Oracle ILOM, refer to the *Oracle ILOM 3.2 Documentation Collection* at https://docs.oracle.com/cd/E37444_01/index.html.

Documentation for Sun Fire X4170 M2 and X4270 M2 Servers

For product documentation and updated product notes for the Sun Fire X4170 M2 and X4270 M2 Servers, go to the following sites:

- For Sun Fire X4170 M2 — <https://docs.oracle.com/cd/E19762-01/>
- For Sun Fire X4270 M2 — <https://docs.oracle.com/cd/E19245-01/>

Known Issues

The following sections provide the latest information about known issues on the Sun Fire X4170 M2 and X4270 M2 Servers.

- “[Hardware Known Issues](#)” on page 21
- “[Software and Operating Systems Known Issues](#)” on page 26
- “[Oracle ILOM Known Issues](#)” on page 36
- “[Documentation Known Issues](#)” on page 43

Note - The following sections list the Bug ID number of the issues. This is the identification number assigned by the current Oracle BugDB bug tracking system. Others list the Change Request number (the identification number assigned by the previous bug tracking system). Either number, the Bug ID number or the CR number, can be used to access the issue in BugDB.

Hardware Known Issues

- “System Might Shut Down Due to a Fan Module Failure” on page 21
- “Active LED does not flash when using on-board SATA controller (ICH10) with an SSD” on page 22
- “Fan could fail if AC power is removed then restored in five seconds or less” on page 22
- “Fan OK/Fault status LED is not lit when host power is off” on page 22
- “Errors logged if Sun QDR InfiniBand Host Channel Adapter is installed in certain slots” on page 23
- “Error displayed when a Sun Storage 6 Gb SAS PCIe internal HBA is installed in the server” on page 23
- “Memory initialization warning message shows mixed LV/RV DIMM population” on page 24
- “Using <CTRL-N> with the Sun Storage 6 Gb SAS PCIe Internal HBA installed might bypass network boot and not load the HBA Option ROM” on page 24
- “Systems with the Sun Storage 6 Gb SAS PCIe Internal HBA become unbootable after upgrading ILOM/BIOS firmware from SW 1.3 to 1.6, 1.7, or 1.8” on page 25

System Might Shut Down Due to a Fan Module Failure

Bug ID 15725346

After some fan module failures, you can replace the fan module without shutting down the server. However, once you remove the failed fan module, you must insert the replacement fan module within 60 seconds. Otherwise the system shuts down with a fan column fail fault.

Other more severe fan module failures cause the system to automatically shut down and register a fan column fail fault, which occurs when both fans in a counter-rotating pair go below a minimum speed.

```
fault.chassis.device.fan.column-fail
```

Affected Hardware:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server

If the system shuts down due to a fan column fail fault, you must clear the fault before you can restart the system.

- See your server service manual for the fan module replacement procedure.
- For procedures to clear the fault, refer to the *Oracle ILOM 3.2 Documentation Collection* at https://docs.oracle.com/cd/E37444_01/index.html.

Active LED does not flash when using on-board SATA controller (ICH10) with an SSD

Bug ID 15799738

When the solid state drive (SSD) is connected directly to the on-board SATA controller (ICH10), the SSD LED is ON when it is idle, and OFF when the SSD is busy (reading or writing). By design, the LED does not flash during SSD activity as is normal with HDDs.

Affected hardware:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server

Workaround:

This is expected behavior, and can be safely ignored.

Fan could fail if AC power is removed then restored in five seconds or less

Bug ID 15686289

When AC power is removed for five seconds or less, the system fails to power on and a /SYS/FB/FM# fan component might be shown as faulted.

Affected hardware:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server

Workaround:

Allow at least 10 seconds for AC power to discharge before restoring power.

Fan OK/Fault status LED is not lit when host power is off

Bug ID 15623078

With server host power is off, a fan OK/Fault status LED might not be lit. Each fan module has one bicolored status LED that is located on the fan module. The status LED should illuminate green (OK) or amber (Fault) even when the server is in Standby power mode.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Releases 1.0 through 1.10.1

Workaround:

Use Oracle ILOM to determine fan module status or turn host power back on.

Errors logged if Sun QDR InfiniBand Host Channel Adapter is installed in certain slots

Bug ID 15689297

There are some errors in the SP system event log (SEL) if the Sun Quad Data Rate (QDR) InfiniBand Host Channel Adapter PCIe option card (X4242A) is installed in slot 1, 2, 4, or 5 on the Sun Fire X4270 M2 Server. An example of the error message is:

```
17 | 12/29/2010 | 03:10:39 | Processor | SM BIOS Uncorrectable CPU-complex  
@ Error | Asserted
```

Affected hardware:

- Sun Fire X4270 M2 Server
- Sun Quad Data Rate (QDR) InfiniBand Host Channel Adapter PCIe option card (X4242A)

Workaround:

Move the Sun Quad Data Rate (QDR) InfiniBand Host Channel Adapter PCIe option card to slot 0. There is no functional impact, and the message can be safely ignored.

Error displayed when a Sun Storage 6 Gb SAS PCIe internal HBA is installed in the server

Bug ID 15687068

When using RHEL 6 or SLES 11 SP1 on a server with a Sun Storage 6 Gb SAS PCIe Internal HBA installed, the following error is displayed in dmesg:

```
[root@linux ~]# dmesg | grep -i error
```

```
pcieport 0000:00:03.0: AER: Multiple Corrected error received: id=0018
pcieport 0000:00:03.0: AER: Corrected error received: id=0018
pcieport 0000:00:03.0: PCIE Bus Error: severity=Corrected, type=Physical
Layer, id=0018(Receiver ID)
pcieport 0000:00:03.0: device [8086:340a] error
status/mask=00000001/00002000
pcieport 0000:00:03.0: [ 0] Receiver Error (First)
```

Affected hardware, operating system, and software:

- Sun Fire X4170 M2 and X4270 M2 Servers with Sun Storage 6 Gb SAS PCIe HBA, Internal option card (SGX-SAS6-INT-Z and SG-SAS6-INT-Z)
- SUSE Linux Enterprise Server (SLES) 11 SP1
- Red Hat Enterprise Linux (RHEL) 6.0
- Release 1.3 through 1.10.1

Workaround:

None. This message can be safely ignored.

Memory initialization warning message shows mixed LV/RV DIMM population

Bug ID 15749536

A memory initialization warning tells the user that mixed LV/RV DIMMs are populating the motherboard.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Releases 1.0 through 1.10.1

Workaround:

This is an informational message, and does not indicate a defect or problem.

Using <CTRL-N> with the Sun Storage 6 Gb SAS PCIe Internal HBA installed might bypass network boot and not load the HBA Option ROM

Bug ID 15641568

If the Sun Storage 6 Gb SAS PCIe Internal HBA (SGX-SAS6-INT-Z and SG-SAS6-INT-Z) is installed in the system, and <CTRL+N> is used on the serial console to initiate a network boot, the network boot might not be initiated, and the Option ROM for the HBA might not be loaded.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Releases 1.0 through 1.10.1

Workarounds:

Do one of the following:

- Use the Oracle ILOM Remote Console and press F12 to initiate a network boot.
- If using the serial console, use <CTRL+E> to get to the BIOS boot device priority menu, and then move the desired PXE adapter (network boot device) to the top of the boot device priority list. The PXE adapter will then be used as the boot device.
- Press <CTRL+N> during, or after, the time HBA Option ROM code is running. The Option ROM code is running when the following banner is displayed: LSI Corporation MPT SAS2 BIOS. Copyright 2000-2010 LSI Corporation.

Systems with the Sun Storage 6 Gb SAS PCIe Internal HBA become unbootable after upgrading ILOM/BIOS firmware from SW 1.3 to 1.6, 1.7, or 1.8

Bug ID 16868222

When upgrading the Oracle ILOM and BIOS firmware of the Sun Fire X4270 M2 with an installed Sun Storage 6 Gb SAS PCIe Internal HBA card (SGX-SAS6-INT-Z or SG-SAS6-INT-Z) from system SW 1.3 to SW 1.6 or 1.7, the system might become unbootable or require rebooting shortly after the LSI controller is initialized.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Releases 1.0 through 1.10.1

Workaround:

Upgrade the HBA firmware to version 11.05.02.00 before upgrading Oracle ILOM and BIOS firmware from SW 1.3 to SW 1.6 or 1.7. The HBA firmware is available in Oracle Hardware Installation Assistant, patch 14155986 (X4170 M2) and patch 14156455 (X4270 M2).

Software and Operating Systems Known Issues

- “New SP IP setting is not displayed in BIOS utility” on page 26
- “SP network setting changes are not saved in the system” on page 27
- “System fails to boot after upgrading from SW 1.3 to SW 1.6 or SW 1.7” on page 27
- “Resetting the System During POST Might Generate Spurious DIMM Faults” on page 28
- “Warning messages appear when booting Oracle Solaris” on page 29
- “Solaris 10 U11 Installation Might Fail with InfiniBand Option Card Installed” on page 29
- ““EHCI BIOS handoff failed” message appears” on page 30
- “PXE boot might fail after running Pc-Check diagnostics” on page 31
- “After running Pc-Check diagnostics, an operating system install or boot might hang at the GRUB menu” on page 31
- “Oracle Linux 5.8 might hang when starting Bluetooth service” on page 31
- “Oracle Linux or RHEL OS boot fails after one or more Sun Flash Accelerator F20 PCIe HBAs are added” on page 32
- “Disk address changes after warm reboot of Oracle Linux 6.1” on page 33
- “Error messages appear in RHEL 6.1 related to PCI and GHES” on page 33
- “During a reboot of the system, a kernel panic might occur” on page 34
- “InfiniBand Host Channel Adapter might fail after Oracle Linux 6.5 is installed” on page 34
- “Oracle Linux might panic at boot time” on page 35
- “System experiences frequent hard resets with freeipmi-bmc-watchdog installed” on page 35
- “Alignment message appears in System Log” on page 36

New SP IP setting is not displayed in BIOS utility

Bug ID 27374650

From the BIOS utility, if you change the SP IP address from static to DHCP, or you set the sideband with DHCP, the new SP IP address does not display in the BIOS utility.

Affected Software:

- Software Releases 1.10 and 1.10.1

Workaround:

Refresh the BIOS utility page twice after setting the new SP IP address.

SP network setting changes are not saved in the system

Bug ID 25887860

If you use the BIOS utility to change SP network settings from DHCP to static, the settings do not get saved in the system.

Affected Software:

- Software Releases 1.10 and 1.10.1

Workaround:

When using the BIOS utility, commit the network setting changes twice. As an alternative, use the command-line interface or web user interface to make network setting changes.

System fails to boot after upgrading from SW 1.3 to SW 1.6 or SW 1.7

Bug ID 16868222

If your server is equipped with a Sun Storage 8-Port 6Gbps SAS-2 PCIe HBA (Internal), before upgrading from SW 1.3 to SW 1.6 or SW 1.7 you must first upgrade the firmware on your Sun Storage 8-Port 6Gbps SAS-2 PCIe HBA (Internal) to version 11.05.02.00 or newer.

Otherwise the server repeatedly reboots shortly after initializing the Sun Storage 8-Port 6Gbps SAS-2 PCIe HBA (Internal).

Affected Hardware:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server

Workaround:

Upgrade the firmware on your Sun Storage 8-Port 6Gbps SAS-2 PCIe HBA (Internal) to version 11.05.02.00 or newer before updating to SW 1.6 or SW 1.7.

If you upgrade from SW 1.3 to SW 1.6 or SW 1.7 and your server fails to reboot properly:

1. Downgrade your server to SW 1.3.

2. Upgrade your Sun Storage 8-Port 6Gbps SAS-2 PCIe HBA (Internal) firmware to version 11.05.02.00 or newer.
3. Upgrade your server to SW 1.6 or SW 1.7 or newer.

For details, see [“Getting Server Firmware and Software” on page 49](#).

Resetting the System During POST Might Generate Spurious DIMM Faults

Bug ID 15777163

If you reset the system during early POST (before video initialization), it might cause the system to log spurious uncorrectable error (DIMM) faults. These can cause BIOS to disable the faulted DIMMs, which are then unavailable to the operating system.

The following display shows this in the system event log. See lines 5 and b.

```

5 | 08/09/2011 | 16:40:33 | System Boot Initiated | Initiated by warm reset | Asserted
6 | 08/09/2011 | 16:40:33 | System Boot Initiated | System Restart | Asserted
7 | 08/09/2011 | 16:40:33 | System Firmware Progress | Memory initialization | Asserted
8 | 08/09/2011 | 16:40:34 | System Firmware Progress | Primary CPU initialization |
  Asserted
9 | 08/09/2011 | 16:41:42 | System Firmware Progress | Management controller
  initialization | Asserted
a | 08/09/2011 | 16:41:42 | System Firmware Progress | Secondary CPU Initialization |
  Asserted
b | 08/09/2011 | 16:41:42 | Memory | Uncorrectable Error | Asserted | OEM Data-2 0x00
  OEM Data-3 0x04
c | 08/09/2011 | 16:41:54 | System Firmware Progress | Video initialization | Asserted
d | 08/09/2011 | 16:42:00 | System Firmware Progress | Keyboard controller
  initialization | Asserted
e | 08/09/2011 | 16:42:12 | System Firmware Progress | Option ROM initialization |
  Asserted
f | 08/09/2011 | 16:42:15 | System Firmware Progress | Option ROM initialization |
  Asserted
10 | 08/09/2011 | 16:42:18 | System Firmware Progress | Option ROM initialization |
  Asserted
11 | 08/09/2011 | 16:42:22 | System Firmware Progress | Option ROM initialization |
  Asserted
12 | 08/09/2011 | 16:42:27 | System Firmware Progress | System boot initiated |
  Asserted

```

Affected Hardware:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server

Workaround:

Do not use the Oracle ILOM CLI or GUI to reset the server during POST until after you see output on the video display.

If the faults do occur:

1. Clear the faults using the Oracle ILOM command-line interface (CLI) command:

```
set /SYS/MB/Px/Dy/ clear_fault_action=true
```

Where *Px/Dy* identifies the DIMM the fault was reported against.
2. Power cycle the system.

Warning messages appear when booting Oracle Solaris

Bug ID 17658302, 18257238

Warning messages appear when booting a server with Oracle Solaris 10 that has a Sun InfiniBand Dual Port 4x QDR PCIe Low Profile Host Channel Adapter M2 card. For example:

```
NOTICE: unsupported 64-bit prefetch memory on pci-pci bridge (128/3/0)
NOTICE: hermon0: error during attach: UAR BAR mapping
NOTICE: hermon0: driver failed to attach: UAR BAR mapping
WARNING: kstat_create('unix', 0, 'hermon_rsrc_cache00000000'): namespace
collision
```

Affected Hardware:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server

Workaround:

Use the BIOS Setup Utility to disable PCI MMIO 64 Bits Support.

Solaris 10 U11 Installation Might Fail with InfiniBand Option Card Installed

Bug ID 19236137

The Solaris 10 Update 11 installation might fail when the Sun Quad Data Rate (QDR) InfiniBand Host Channel Adapter PCIe option card (X4242A) is installed. There is a known limitation on 64-bit addresses in PCIe with some cards installed and when running Solaris 10. When booting Solaris 10 Update 11, the following error messages might be displayed:

```
NOTICE: unsupported 64-bit prefetch memory on pci-pci bridge (128/3/0)
```

```
NOTICE: hermon0: error during attach: UAR BAR mapping
```

```
NOTICE: hermon0: driver failed to attach: UAR BAR mapping
```

```
WARNING: kstat_create('unix', 0, 'hermon_rsrc_cache00000000'): namespace collision
```

The system might panic and the processor will be taken off line when the system is rebooted.

Affected hardware:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Sun Quad Data Rate (QDR) InfiniBand Host Channel Adapter PCIe option card (X4242A)
- Solaris 10 Update 11

Workaround:

In the BIOS Setup Utility, disable the PCIe 64-bit resource allocation (PCI MMIO 64 Bits Support). The hermon driver for the Sun Quad Data Rate (QDR) InfiniBand Host Channel Adapter PCIe option card (X4242A) will then load successfully.

"EHCI BIOS handoff failed" message appears

Bug ID 15603495

The "EHCI BIOS handoff failed" message appears in VMware ESX 4.0 Update 1. The failure message appears in the dmesg output.

Affected operating system and software:

- Releases 1.0 through 1.10.1
- VMware ESXi 4.0 Update 1

Workaround:

This is not a defect. This is expected behavior.

PXE boot might fail after running Pc-Check diagnostics

Bug ID 15661223

If you attempt to boot the server using PXE boot immediately after running Pc-Check diagnostics, the boot might fail with a message similar to the following:

```
Intel(R) Boot Agent GE v1.3.31
Copyright (C) 1997-2009, Intel Corporation
```

```
PXE-EC8: !PXE structure was not found in UNDI driver code segment.
PXE-M0F: Exiting Intel Boot Agent.
```

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Releases 1.0 through 1.10.1

Workaround:

To avoid this issue, reboot the system after running Pc-Check.

After running Pc-Check diagnostics, an operating system install or boot might hang at the GRUB menu

Bug ID 15650361

After running Pc-Check, if you attempt to install or boot an operating system, the install or boot might hang at the GRUB menu.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Releases 1.0 through 1.10.1

Workaround:

Reboot the system with Pc-Check disabled before trying to install or boot an operating system.

Oracle Linux 5.8 might hang when starting Bluetooth service

Bug ID 15788334

After installation of Oracle Linux 5.8, the system might hang while the screen shows "Starting Bluetooth services: [OK]".

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Oracle Enterprise Linux 5.8

Workaround:

Change the following network settings:

1. `hostmanaged=false`
2. `set state=disabled`
3. `Reset system`

Save the configuration and reset the system.

Oracle Linux or RHEL OS boot fails after one or more Sun Flash Accelerator F20 PCIe HBAs are added

Bug ID 15736312

If one or more Sun Flash Accelerator F20 PCIe HBA (TA-FAS-S31E96GB-N) is added, and RHEL 5.x or Oracle Linux 5.x is installed without changing the boot order and GRUB boot loader, then RHEL/Oracle Enterprise Linux will not boot up successfully and the screen will show "No Active Partition."

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Sun Flash Accelerator F20 PCIe HBA
- Oracle Linux 5.x
- Red Hat Enterprise Linux (RHEL) 5.x

Workaround:

1. Manually change the GRUB boot loader during the OS installation.
2. Make sure your OS is installed on the hard disk instead of on the FMODs in the flash F20 card.
3. Set the LSI SAS controller as the first boot in the BIOS boot device menu.

Disk address changes after warm reboot of Oracle Linux 6.1

Bug ID 15752841

The disk address changes on Sun Fire X4270 M2 with Oracle Linux 6.1 after every system warm reboot.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Oracle Linux 6.1
- Red Hat Enterprise Linux (RHEL) 6.1 and 6.2
- Software releases 1.6 through 1.10.1

Workaround:

Append `scsi_mod.scan=sync` to the following kernel command-line parameter:

```
title Red Hat Enterprise Linux (2.6.32-71.el6.x86_64)
    root (hd0,0)
    kernel /vmlinuz-2.6.32-71.el6.x86_64 ro root=/dev/mapper/vg0-lv0
rd_LVM_LV=vg0/lv0 rd_LVM_LV=vg0/lv1 rd_NO_LUKS rd_NO_MD rd_NO_DM
LANG=en_US.UTF-8 SYSFONT=latarcyrheb-sun16 KEYBOARDTYPE=pc KEYTABLE=us
crashkernel=auto scsi_mod.scan=sync
```

Error messages appear in RHEL 6.1 related to PCI and GHES

Bug ID 15743094

Errors appear in RHEL 6.1 related to PCI and generic hardware error source (GHES). For example:

`pci 0000:00:0a.0: PCIe errors handled by OS.`

`GHES: Generic hardware error source: 0 notified via NMI is not supported!`

Affected software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Red Hat Enterprise Linux (RHEL) 6.1
- Oracle VM 3.0 and 3.1

- Software releases 1.5 through 1.10.1

Workaround:

None. These messages are informational, and do not indicate a problem.

During a reboot of the system, a kernel panic might occur

Bug ID 15614524

During a warm reboot of the system, you might see an intermittent kernel panic `__cpufreq_governor`.

Affected software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Oracle Linux 5.4
- Red Hat Enterprise Linux (RHEL) 5.4
- Releases 1.0 through 1.10.1

Workarounds:

A patch has been issued to fix this issue. You can download the patch at: <https://bugzilla.redhat.com/attachment.cgi?id=336296&action=diff>

InfiniBand Host Channel Adapter might fail after Oracle Linux 6.5 is installed

Bug ID 17899109

After installing Oracle Linux 6.5, the InfiniBand PCIe Host Channel Adapter card might stop working.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Sun Dual Port QDR InfiniBand Host Channel Adapter for PCIExpress Gen 3 (7104073 and 7104074)
- Oracle Linux 6.5
- Releases 1.7.6 through 1.10.1

Workaround:

Do the following:

1. Install the Remote Direct Memory Access (RDMA) package from yum or from the operating system installation disk.
2. Add or unmask "MLX4_LOAD=yes" in the /etc/rdma/rdma.conf file.

Oracle Linux might panic at boot time

Bug ID 20157307

Oracle Linux may panic at boot time with backtrace "__cpufreq_governor".

Affected Software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Oracle Linux 6.6 and 7.0 with UEK3QU4 (3.8.13-55) and any older UEK3 kernels
- Release 1.7.4 through 1.10.1

Workaround:

If this issue occurs, perform a manual reset on the system. This issue will be fixed in a future UEK kernel.

System experiences frequent hard resets with freeipmi-bmc-watchdog installed

Bug ID 20367749

The system experiences frequent hard resets when Oracle Linux 6.6 with the "freeipmi-bmc-watchdog" (watchdog timer) package is installed.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Oracle Linux 6.6
- Release 1.7.4 through 1.10.1

Workaround:

Append a "-W ignorestateflag" option to the "/etc/sysconfig/bmc-watchdog" configuration file, and then restart the bmc-watchdog service. To restart the bmc-watchdog service, run the service bmc-watchdog restart command with root privileges.

Alignment message appears in System Log

Bug ID 21666316

The system displays an alignment message in var/log/messages similar to the following:

```
[ 7.435140] pci 0000:00:1f.0: BAR 13: [io size 0x0080] has bogus alignment
[ 5.977668] pci 0000:00:1f.0: can't claim BAR 13 [io 0x0800-0x087f]: address conflict with ACPI CPU throttle [io 0x0810-0x0815]
```

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Any operating system with UEK4 kernel.

Workaround:

No workaround is needed. You can ignore the message.

Oracle ILOM Known Issues

- [“In-chip connectivity between the SP and host OS is not supported when using sideband network port sharing” on page 38](#)
- [“Multiple Oracle ILOM Remote Console sessions on the same SP can cause the KVMS interface to fail” on page 39](#)
- [“SP restore is only partially successful and logs an error” on page 39](#)
- [“BIOS is not updated when using IPMIFlash to upgrade the SP” on page 40](#)
- [“Unable to launch Oracle ILOM Remote Console using JRE 1.6.0 U14, U15, and U16” on page 40](#)
- [“Mouse pointer does not work with MegaRAID Storage Manager in Oracle ILOM Remote Console” on page 41](#)
- [“Attempts to set the flow control setting on the external serial port fail” on page 41](#)
- [“Windows Server 2008 R2 generates system event log warning when power is limited by Oracle ILOM power management” on page 42](#)

Error message is displayed upon launching the Remote System Console from Oracle ILOM

Bug ID 26785605

When launching the Remote System Console from the Oracle ILOM graphical user interface, you might receive the following error message:

"Video redirection error: Connnection reset"

Upon receiving this message, the Remote System Console status is displayed as disconnected.

Affected software:

- Oracle ILOM 3.2.11.20
- Software Releases 1.10 and 1.10.1

Workaround:

Close and then relaunch the Remote System Console.

Oracle ILOM SP reboot might occur due to memory limitation

Bug ID 27441441

When the Oracle Server X4170 M2 or Oracle Server X4270 M2 is running a heavy workload, the Oracle ILOM service processor (SP) might reboot due to insufficient memory.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 Server
- ILOM firmware release 3.2.11.20
- Software Releases 1.10 and 1.10.1

Workaround:

Follow these guidelines when running Oracle ILOM 3.2.x.x, or later, firmware:

1. When using the Oracle ILOM Snapshot utility, limit the number of open sessions. It is recommended to run only one session using either the command-line interface (CLI) or the web interface (using the Snapshot CLI is preferred). Do not run multiple tasks concurrently in different sessions.

2. When required, open the least number of Oracle ILOM Snapshot sessions, up to a maximum of five Snapshot sessions. When running both CLI and web interface Snapshot sessions, the maximum of five sessions can include CLI sessions and one web interface session, or one session using the Oracle ILOM Remote System Console. Do not attempt to open more than one web interface or Remote Console Snapshot sessions when also using Snapshot CLI sessions.
3. When upgrading Oracle ILOM, use this command: `load -source <PKG_URL>`. When issuing the command, if possible, use the `tftp`, `ftp`, or `sftp` protocol rather than `http` or `https`. Do not update Oracle ILOM using the web interface to upload the package file or to provide the `PKG_URL`.
4. If the Oracle ILOM update fails, Oracle ILOM will reboot into the PreBoot utility. Use these commands to recover:

Note - Use of the PreBoot utility is for Oracle Service personnel only.

- a. Use the `net config` command to set the `ipdiscover`, `managementport`, and so on. Use the `show` command to list the configurations.
- b. Use the `net dhcp` command to get the IP address if `ipdiscovery` is set to DHCP.
- c. To flash Oracle ILOM, use this command: `net flash <tftp-server-IP-address> <path-to-flash-file>`

In-chip connectivity between the SP and host OS is not supported when using sideband network port sharing

Bug ID 15526839

When configured for sideband network port sharing, in-chip connectivity between the service processor (SP) and the host operating system is not supported by the on-board host Gigabit Ethernet controller.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Releases 1.0 through 1.10.1

Workaround:

Use a different port or route to transmit traffic between the source and destination targets instead of using L2 bridging/switching.

Multiple Oracle ILOM Remote Console sessions on the same SP can cause the KVMS interface to fail

Bug ID 15543610

When multiple Oracle ILOM Remote Console sessions are opened to the same service processor (SP), the additional session's keyboard interface might not work. The first session's keyboard interface is not affected.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Releases 1.0 through 1.10.1

Workaround:

- Double-click in the Oracle ILOM Remote Console dialog to activate the mouse, then move the mouse. OR
- In the Oracle ILOM Remote Console menu bar, select Devices --> Mouse, then move the mouse.

SP restore is only partially successful and logs an error

Bug ID 15620790

An SP restore is only partially successful and reports an error in the log. If the serial console is in use during the restore, properties related to the serial console cannot be restored and you will receive messages similar to the following:

```
Config restore: Unable to restore property '/SP/serial/host/commitpending'
```

```
Config restore: Unable to restore property '/SP/serial/external'  
Because such properties could not be restored
```

Affected software:

- Releases 1.0 through 1.10.1

Workaround:

This is not a defect. Log out of the serial console and try to run the restore command again.

BIOS is not updated when using IPMIflash to upgrade the SP

Bug ID 15624057

BIOS does not get updated when you use IPMIflash to upgrade the Oracle ILOM service processor (SP) image with the Delay BIOS option on. When you power the server off and on, the BIOS image should be updated, but it is not.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Oracle Linux 5.4
- Releases 1.0 through 1.10.1

Workaround:

Instead of powering the server off and on using the Power button, run a power-cycle command. This will guarantee that BIOS is updated. For example, use one of the following commands:

- Using the Oracle ILOM web interface: Remote Control->Remote Power Control->Power Cycle
- Using IPMI: ipmitool power cycle

Unable to launch Oracle ILOM Remote Console using JRE 1.6.0 U14, U15, and U16

Bug ID 15624521

If you try to launch the Oracle ILOM Remote Console through the web using some builds of Java Runtime Environment (JRE), the system returns the error "Unable to Launch the Application."

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- All operating systems using JRE 1.6.0, U14, U15, and U16
- Releases 1.0 through 1.10.1

Workaround:

Upgrade to JRE 1.6.0 U17 or later.

Mouse pointer does not work with MegaRAID Storage Manager in Oracle ILOM Remote Console

Bug ID 15584702

When using the Oracle ILOM Remote Console (with the mouse mode set to Absolute) on a server with a Sun Storage 6 Gb SAS PCIe RAID HBA Internal option card installed, if you boot the system and press Ctrl+H to enter the LSI MegaRAID BIOS Utility, the mouse pointer only moves vertically and horizontally on the left and top sides of the utility.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Sun Storage 6 Gb SAS PCIe RAID HBA, Internal option card (SGX-SAS6-R-INT-Z and SG-SAS6-R-INT-Z)
- Releases 1.0 through 1.10.1

Workaround:

In the Oracle ILOM Remote Console, change the mouse mode setting from Absolute (the default) to Relative mode. The mouse mode setting is located on the Remote Console/KVMS tab in the server's Oracle ILOM web interface. For instructions for setting Oracle ILOM Remote Console to Relative mode, refer to the Oracle ILOM 3.2.x Documentation Collection. To access the Oracle ILOM 3.2.x Documentation Collection, go to: <https://www.oracle.com/technetwork/documentation/sys-mgmt-networking-190072.html#ilom>

Attempts to set the flow control setting on the external serial port fail

Bug ID 15689114

If you attempt to use Oracle ILOM to configure the flow control setting on the external serial port on the server, the new setting does not take effect.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Oracle ILOM 3.0.14.11
- Releases 1.3 through 1.10.1

Workaround:

None.

CPU power-state cannot be capped on host reboots if hard cap is enabled

Bug ID 15634048

The CPU power-state is not capped after a host reboot even if hard cap is enabled. This is because Oracle ILOM Power Management limits might not be honored upon boot in Oracle Linux 5.5 or in Red Hat Enterprise Linux (RHEL) 5.5.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Oracle Linux 5.5
- Red Hat Enterprise Linux (RHEL) 5.5
- Releases 1.0 through 1.10.1

Workaround:

Using Oracle ILOM, disable then re-enable Power Limiting using the following steps:

1. Select the Power Management tab.
2. Select the Limit tab.
3. Next to the Power Limiting option, uncheck Enabled.
4. Click Save.
5. Next to the Power Limiting option, check Enabled.
6. Click Save.

Windows Server 2008 R2 generates system event log warning when power is limited by Oracle ILOM power management

Bug ID 15587516

When power is being limited by the Oracle ILOM Power Management feature, the Windows Server 2008 R2 operating system will generate warning messages in the System Event Log informing you that the processor(s) are being restricted.

Example Event: The Speed of Processor xx in group x is being limited by system firmware. The processor has been in this reduced performance state for xxxx seconds since last report.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- All Sun servers with Power Management support
- Windows Server 2008 R2
- Releases 1.0 through 1.10.1

Workaround:

No workaround is needed. These warning messages are expected events and, therefore, do not indicate a problem.

Documentation Known Issues

- [“Service manual incorrectly states that Sun Storage 6 Gb SAS PCIe External HBA can only be installed in slot 3” on page 44](#)

Broken Links in Sun Server X4170 M2 and X4270 M2 Documentation Library

Location	Link Destination	Broken Link	Correct Link
Throughout the library	Sun Server X4170 M2 and X4170 M2 documentation library	<ul style="list-style-type: none"> ■ https://www.oracle.com/goto/x4170m2 ■ https://www.oracle.com/goto/x4270m2 	<ul style="list-style-type: none"> ■ https://docs.oracle.com/cd/E19762-01/index.html ■ https://docs.oracle.com/cd/E19245-01/index.html
<i>Sun Disk Management Overview</i>	Information about disk management for numerous servers	Multiple links to servers' documentation	Find information about your server in one of the following libraries: <ul style="list-style-type: none"> ■ https://www.oracle.com/technetwork/documentation/oracle-x86-servers-190077.html
<i>Sun Disk Management Overview</i>	<i>Sun LSI 106x RAID User's Guide</i>	https://docs.sun.com/app/docs/coll/sflsihba	https://docs.oracle.com/cd/E19694-01/820-4933-15/index.html
<i>Sun Fire X4170 M2 and X4270 M2 Server Installation Guide for Oracle</i>	Oracle Solaris documentation library	https://docs.sun.com/app/docs/doc/817-0550/eqxqt?a=view	https://www.oracle.com/technetwork/documentation/solaris-11-192991.html

Location	Link Destination	Broken Link	Correct Link
<i>Solaris Operating System</i>			
<i>Sun Fire X4170 M2 and X4270 M2 Server Installation Guide</i>	Oracle Enterprise Opscenter	https://www.oracle.com/us/products/enterprise-manager/opscenter/index.html	https://www.oracle.com/technetwork/oem/ops-center/index.html
<i>Sun Fire X4170 M2 and X4270 M2 Server Installation Guide for Linux Operating Systems</i>	<ul style="list-style-type: none"> ■ SUSE documentation ■ Site to purchase Oracle support 	<ul style="list-style-type: none"> ■ https://www.novell.com/documentation/suse ■ https://www.oracle.com/support/purchase.html 	<ul style="list-style-type: none"> ■ https://www.suse.com/documentation/ ■ https://support.oracle.com
<i>Sun Fire X4170 M2 and X4270 M2 Server Installation Guide for Windows Operating Systems</i>	<ul style="list-style-type: none"> ■ Microsoft's Windows Deployment Services Step-by-Step Guide ■ Microsoft's Windows Server 2008 installation documentation 	<ul style="list-style-type: none"> ■ http://www.microsoft.com/downloads/details.aspx?familyid=14CA18B1-B433-4F62-8586-B0A2096460EB[amp]displaylang=en ■ http://www.microsoft.com/windowsserver2008/en-us/product-documentation.aspx 	<ul style="list-style-type: none"> ■ https://docs.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2012-R2-and-2012/hh831764(v=ws.11) ■ https://www.microsoft.com/en-us/download/details.aspx?id=269
<i>Sun LSI 106x RAID User's Guide</i>	Installer error messages on the Microsoft Developers Network (MSDN) web site	http://msdn.microsoft.com/library/default.asp?url=/library/en-us/msi/setup/windows_installer_error_messages.asp	https://msdn.microsoft.com/en-us/library/windows/desktop/aa372835(v=vs.85).aspx

Service manual incorrectly states that Sun Storage 6 Gb SAS PCIe External HBA can only be installed in slot 3

Bug ID 15810177

PCIe card placement restriction stated in Table 4-6 of the *Sun Fire X4170 M2 and Sun Fire X4270 M2 Service Manual* is incorrect.

Affected documentation:

- Sun Fire X4170 M2 and Sun Fire X4270 M2 Service Manual

Workaround:

- The Sun Storage 6 Gb SAS PCIe External HBA (SGX-SAS6-EXT-Z) can be installed in any free slot.

Resolved Issues

- [“Oracle ILOM Resolved Issues” on page 45](#)
- [“Hardware Resolved Issues” on page 47](#)

Note - The resolved issues tables list the issues by the Bug ID number (the identification number assigned by the current Oracle BugDB bug tracking system) and the Change Request number (the identification number assigned by the previous bug tracking system). Either number, the Bug ID number or the CR number, can be used to access the issue in BugDB.

Oracle ILOM Resolved Issues

The following Oracle ILOM issues are resolved:

- [“Oracle ILOM SNMP v3 traps are not delivered after SNMP engine ID change” on page 45](#)
- [“Oracle ILOM Remote Console might hang on Windows client when redirecting a CD-ROM image or floppy image” on page 46](#)
- [“Oracle ILOM CLI shows incorrect HDD PRSNT value after storage drive has been hot removed or hot inserted” on page 47](#)

Oracle ILOM SNMP v3 traps are not delivered after SNMP engine ID change

Bug ID 23634048

If you change the engine ID, create an SNMP v3 user, and configure an alert using that user without waiting approximately 10 seconds between each action, the internal user configuration might be incorrect and traps are missed.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Releases 1.0 through 1.10.1
- ILOM 3.2.8.21

Workaround:

Do not create multiple configuration changes without verifying the effect of each configuration change. To prevent misconfigured users and missed traps, insert sleep statements in the script. For example:

```
# change engineID
set /SP/services/snmp engineid=NEWENGINEID
# sleep 10 seconds to give snmp enough time to make the change
sleep 10
# verify engineID
show /SP/services/snmp engineid
# verify SNMPv3 users have been deleted
show /SP/services/snmp/users

# create snmpv3 user
create /SP/services/snmp/users newuser authenticationpassword=...
# sleep 10 seconds to give snmp enough time to make the change
sleep 10
# verify user
show /SP/services/snmp/users newuser
# do a snmpget with that user to verify it

# configure alert
set /SP/alertmgmt/rules/1 type=snmptrap ...
# sleep 10 seconds to give snmp enough time to make the change
sleep 10
# verify alert
show /SP/alertmgmt/rules/1
set /SP/alertmgmt/rules/1 testrule=true
```

Oracle ILOM Remote Console might hang on Windows client when redirecting a CD-ROM image or floppy image

Bug ID 15542570

Oracle ILOM Remote Console might hang on Windows client when redirecting a CD-ROM image or floppy image.

Issue:

When using a Windows client to redirect a CD-ROM image or floppy image from the Oracle ILOM Remote Console, the Oracle ILOM Remote Console might not respond.

- Windows operating system installed on client system
- Oracle ILOM 3.0 or later
- Oracle ILOM Remote Console
- Java Development Kit (JDK) 1.6.0_07
- Releases 1.0, 1.1, 1.2, 1.2.2, and 1.2.3

Fixed in:

- Release 1.3

Oracle ILOM CLI shows incorrect HDD PRSNT value after storage drive has been hot removed or hot inserted

Bug ID 15632781

Oracle ILOM command-line interface (CLI) shows an incorrect HDD PRSNT value after a storage drive has been hot removed or hot inserted.

Issue:

HDD PRSNT sensor status update is inconsistent after hot removal or hot insertion of a storage drive. Sometimes the sensor status will update immediately and other times it does not.

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Releases 1.0, 1.1, 1.2, 1.2.2, and 1.2.3

Fixed in:

- Release 1.3

Hardware Resolved Issues

Correctable memory errors are interpreted incorrectly when using the fmdump -V commands

Bug ID 15617357

Correctable memory errors are interpreted incorrectly when using the `fmddump -V` commands.

Issue:

Correctable memory errors appear in the Fault Management Architecture (FMA) log file after executing the `fmddump -V` commands as an undiagnosed fault, `defect.sunos.eft.undiag.fme`. In the Oracle Solaris OS message log, there is a corresponding message, the ID is SUNOS-8000-FU. To identify the DIMM location in the FMA log, refer to the list below.

Processor 0:

- D0: chip 0, controller 0, channel 0, DIMM 2
- D1: chip 0, controller 0, channel 0, DIMM 1
- D2: chip 0, controller 0, channel 0, DIMM 0
- D3: chip 0, controller 0, channel 1, DIMM 2
- D4: chip 0, controller 0, channel 1, DIMM 1
- D5: chip 0, controller 0, channel 1, DIMM 0
- D6: chip 0, controller 0, channel 2, DIMM 2
- D7: chip 0, controller 0, channel 2, DIMM 1
- D8: chip 0, controller 0, channel 2, DIMM 0

Processor 1:

- D0: chip 1, controller 0, channel 0, DIMM 2
- D1: chip 1, controller 0, channel 0, DIMM 1
- D2: chip 1, controller 0, channel 0, DIMM 0
- D3: chip 1, controller 0, channel 1, DIMM 2
- D4: chip 1, controller 0, channel 1, DIMM 1
- D5: chip 1, controller 0, channel 1, DIMM 0
- D6: chip 1, controller 0, channel 2, DIMM 2
- D7: chip 1, controller 0, channel 2, DIMM 1
- D8: chip 1, controller 0, channel 2, DIMM 0

Affected hardware and software:

- Sun Fire X4170 M2 Server
- Sun Fire X4270 M2 Server
- Oracle Solaris 10 10/09
- Releases 1.0, 1.1, 1.2, 1.2.2, and 1.2.3

Fixed in:

- Release 1.3

Getting Server Firmware and Software

This section explains the options for accessing server firmware and software updates using My Oracle Support (MOS).

Customers are required to install the latest available operating system (OS), patches, and firmware versions for optimal system performance, security, and stability.

Description	Links
Learn about server firmware and software updates.	“Firmware and Software Updates” on page 49
Learn about options for accessing firmware and software.	“Options for Accessing Firmware and Software Updates” on page 50
Review available firmware and software releases.	“Software Releases” on page 50
Learn how to get firmware and software updates using My Oracle Support.	“Download Firmware and Software Updates From My Oracle Support” on page 51
Learn how to install firmware and software updates using other methods.	“Installing Updates Using Other Methods” on page 52
Learn how to get support from Oracle.	“Oracle Support” on page 53

Firmware and Software Updates

Firmware and software for your server are updated periodically. These updates are made available as software releases. The software releases are a set of downloadable files (patches) that include all available firmware, software, hardware drivers, tools, and utilities for the server. All of these files have been tested together and verified to work with your server.

You must update your server firmware and software as soon as possible after a new software release becomes available. Software releases often include bug fixes, and updating your server ensures that your server has the latest firmware and software. These updates will increase your system performance, security, and stability.

The server product notes list the current server software release and firmware version that are available. To determine which firmware version is installed on your server, you can use either the Oracle ILOM web interface or the command-line interface.

- For the web interface, click System Information → Summary, then view the property value for System Firmware Version in the General Information table.
- For the CLI, at the command prompt, type: `show /System`

The ReadMe document that is included with each patch in a software release contains information about the patch, such as what has changed or not changed from the prior software release, as well as bugs that are fixed with the current release.

The product notes that are part of the server documentation identify which server software release is the latest release supported on your server.

Options for Accessing Firmware and Software Updates

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

- **My Oracle Support** – All system software releases are available from the My Oracle Support web site at <https://support.oracle.com>.
For information about what is available on the My Oracle Support web site, see “[Software Releases](#)” on page 50.
- **Other Methods** – You can use Oracle Enterprise Manager Ops Center, Oracle Hardware Management Pack, or Oracle ILOM to update your server software and firmware.
For information, see “[Installing Updates Using Other Methods](#)” on page 52.

Software Releases

Software releases on My Oracle Support are grouped by product family (such as Sun Fire Server), then the product (the specific server or blade), and finally the software release version. A software release contains all the updated software and firmware for your server or blade as a set of downloadable files (patches), including firmware, drivers, tools, or utilities, all tested together to be compatible with your server.

Each patch is a zip file that contains a ReadMe file and a set of subdirectories containing firmware or software files. The ReadMe file contains details on the components that have changed since the prior software release and the bugs that have been fixed.

My Oracle Support provides the set of software releases for your server as described in the following table. You can obtain these software releases by downloading the files from My Oracle Support.

TABLE 1 Software Release Packages

Package Name	Description	When to Download This Package
X4170 M2/X4270 M2 SW <i>release</i> – ILOM and BIOS	Contains all system firmware, including Oracle ILOM, BIOS, and option card firmware.	You need the latest firmware.

Package Name	Description	When to Download This Package
X4170 M2/ X4270 M2 SW release – Tools and Drivers	Includes a package of all tools, drivers, and utilities for a specific OS. A Tools and Drivers Pack is available for each supported operating system version. Software includes Oracle Hardware Management Pack, LSI MegaRAID software, and any other optional software that Oracle recommends. For the Windows OS, the Tools and Drivers Pack also includes Intel Network Teaming and Install Pack.	You need to update OS-specific tools, drivers, or utilities.
X4170 M2/X4270 M2 SW release – All Packs	Includes the ILOM and BIOS Pack, all Tools and Drivers Packs, and all documents. This pack does not include Oracle VTS image.	You need to update a combination of system firmware and OS-specific software.
X4170 M2/X4270 M2 SW release – Diagnostics	Includes Oracle VTS diagnostics image.	You need the Oracle VTS diagnostics image.
X4170 M2/X4270 M2 release – Hardware Installation Assistant	Includes Oracle Hardware Installation Assistant recovery/update ISO image.	You need to manually recover or update Oracle Hardware Installation Assistant.

Getting Updates From My Oracle Support

You can obtain updated firmware and software from the My Oracle Support (MOS) web site.

▼ Download Firmware and Software Updates From My Oracle Support

1. **Go to the My Oracle Support web site:** <https://support.oracle.com>.
2. **Sign in to My Oracle Support.**
3. **At the top of the page, click the Patches & Updates tab.**
The Patch Search pane appears at the right of the screen.
4. **Within the Search tab area, click Product or Family (Advanced).**
The Search tab area appears with search fields.

5. **In the Product field, select the product from the drop-down list.**
Alternatively, type a full or partial product name (for example, Sun Fire X4170 M2) until a match appears.
6. **In the Release field, select a software release from the drop-down list.**
Expand the list to see all available software releases.
7. **Click Search.**
The Patch Advanced Search Results screen appears, listing the patches for the software release. See “[Software Releases](#)” on page 50 for a description of the available software releases.
8. **To select a patch for a software release, click the patch number next to the software release version.**
You can use the Shift key to select more than one patch.
A pop-up action panel appears. The panel contains several action options, including the ReadMe, Download, and Add to Plan options. For information about the Add to Plan option, click the associated button and select “Why use a plan?”.
9. **To review the ReadMe file for this patch, click ReadMe.**
10. **To download the patch for the software release, click Download.**
11. **In the File Download dialog box, click the patch zip file name.**
The patch for the software release downloads.

Installing Updates Using Other Methods

In addition to using My Oracle Support, you can install firmware and software updates using one of the following methods:

- **Oracle Enterprise Manager Ops Center** – You can use Ops Center Enterprise Controller to 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 information, go to:

<https://www.oracle.com/technetwork/oem/ops-center/index.html>

- **Oracle Hardware Management Pack** – You can use the fwupdate CLI Tool within the Oracle Hardware Management Pack software to update firmware within the system.

For information, refer to the Oracle Hardware Management Pack Documentation Library at:

<https://www.oracle.com/goto/ohmp/docs>

- **Oracle ILOM** – You can use the Oracle ILOM web interface or command-line interface to update Oracle ILOM and BIOS firmware.

For information, refer to the Oracle Integrated Lights Out Manager (ILOM) 3.2 Documentation Library at:

<https://www.oracle.com/goto/ilom/docs>

Oracle Support

If you need help getting firmware or software updates, you can call Oracle Support. Use the appropriate number from the Oracle Global Customer Support Contacts Directory at:

<https://www.oracle.com/us/support/contact-068555.html>

