Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes

Part No: E20884–16
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Contents

Using This Documentation

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

Sun Blade X3–2B Model Name Change

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

The new name identifies the following:

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

Getting the Latest Firmware and Software

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

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

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

- Physical media request

For more information, see "Getting Server Firmware and Software" on page 63.

Documentation and Feedback

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

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

About This Documentation

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

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

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

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

Support and Training

These web sites provide additional resources:

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

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Change History

The following lists the release history of this documentation set:

- December 2014. Revised *Product Notes* for SW v1.3.1. RHEL7 and Oracle Linux 7 support. EOL
- May 2014. Revised *Product Notes* for SW v1.3. Revised *Service Manual*.
- May/August 2013. Updated the supported OS list in *Product Notes* and revised *Administration Guide*, *Installation Guide*, *Security Guide*.
- March 2013. Revised *Installation Guide* and *Product Notes*.
- January 2013. Revised *Product Notes*, *Administration Guide*, *Installation Guide*
- November 2012. Updated for SW 1.2 and document refresh. Revised *Product Notes*, *Service Manual*, *Installation Guide*, and *Administration Guide*.
- August 2012. Revised *Product Notes* only.
- July 2012. Revised *Product Notes* only.
- July 2012. Server model name changed. All documents revised.
- June 2012. Updated for SW 1.1. Revised *Product Notes* and *Service Manual*.
- May 2012. Updated for SW 1.0.1. Documentation library re-released with editorial revisions.
- April 2012. Initial publication.

Overview of the Sun Blade X3-2B Product Notes

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

The *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Product Notes* contains information about the server, including notes and issues pertaining to software, hardware, firmware, and BIOS.

Description	Links
Get a list of what is new in this version of the document.	"*New* In This Revision" on page 13
Information about server-supported components, firmware, and software.	"System Hardware and Software Features" on page 17
Review of hardware, firmware, and BIOS issues, workarounds, and announcements.	"Hardware, Firmware, and BIOS Current Issues and Announcements" on page 25
List of Oracle System Assistant-related issues, workarounds, and announcements.	"Oracle System Assistant Current Issues and Announcements" on page 33
List of Linux OS-related issues and workarounds.	"Linux Current Issues and Announcements" on page 43
List of Oracle VM- and VMware ESXi–related issues, workarounds, and announcements.	"Oracle VM and VMware ESXi Issues and Announcements" on page 51
List of Oracle Solaris OS-related issues, workarounds, and announcements.	"Oracle Solaris OS Issues and Announcements" on page 55
List of Windows-related issues, workarounds, and announcements.	"Windows Current Issues and Announcements" on page 61
Information about how to obtain server firmware and software.	"Getting Server Firmware and Software" on page 63

New In This Revision

The table lists the sections that have newly added issues.

Section	New Issues
"Oracle System Assistant Current Issues and Announcements" on page 33	2
"Linux Current Issues and Announcements" on page 43	2
"Oracle Solaris OS Issues and Announcements" on page 55	2
"Windows Current Issues and Announcements" on page 61	3

Sun Blade X3–2B *Product Notes* document change history:

- December 2014 (-16). Updated for SW v1.3.1. RHEL7 and Oracle Linux 7 support. EOL
- May 2014 (-15). Updated for SW v1.3 and issues and announcements.
- May 2013 (-14). Updated Supported OS list to include OVM 3.2.
- March 2013 (-13). Addendum to January posting. Added one announcement.
- January 2013 (-12). Addendum to November Oracle System Assistant posting. Added seven issues and a Windows section.
- November 2012 (-11). Updated for SW 1.2. Added (7) and removed issues.
- September 2012 (-10). Added issue 7178868.
- August 2012 (-09). Added issue 7146732.
- July 2012 (-08). Revised issue 7163774.
- July 2012 (-07). Added issue 7163774.
- July 2012 (-06). Server model name changed. Name change information and firmware release history table added. No added or updated issues.
- June 2012 (-05). Updated for SW 1.1 and add issues.
- May 2012. Updated for SW 1.0.1 and added issues.
- April 2012. Initial publication of server documentation.

Terminology

This section contains commonly used terms, product names, and acronyms found in the Sun Blade X3–2B documentation.

- **CLI**: command-line interface
- **CMM**: chassis monitoring module
- **FEM**: fabric expansion module
- **HD or HDD**: hard drive
- **HBA**: host bus adapter
- **KVMS**: keyboard, video, mouse, and storage
- **MOS**: My Oracle Support
- **NEM**: network expansion module:
- **Oracle HMP**: Oracle Hardware Management Pack
- **Oracle ILOM**: Oracle Integrated Lights Out Manager
- **PCIe EM**: PCIe ExpressModules
- **REM**: RAID expansion module
- **SP**: service processor
- **SSD**: solid-state drive
- **FCoE**: fiber channel over Ethernet

System Hardware and Software Features

The following sections describe the hardware configuration requirements and the software features for the Sun Blade X3-2B:

Firmware Release History

For the latest and most up-to-date information on supported firmware versions, see the ReadMe file on Oracle System Assistant.

- To access the ReadMe file, click the Help button on the Oracle System Assistant System Overview page, and then click Release Notes.
- To ensure that the ReadMe file contains the most recent firmware version information, update Oracle System Assistant with the latest software release that is available for the server.
- The ReadMe file can also be accessed on My Oracle Support as the top-level ReadMe, and it is included in any server software package that you download from My Oracle Support. For download instructions, see "Getting Server Firmware and Software" on page 63.

The following table lists the released versions of the server firmware.

System Software Release	Oracle ILOM SP Firmware	System BIOS	CPLD
1.3.1	3.1.2.48 r93698	20.10.04.00	3.3
1.3	3.1.2.46 r88533	20.10.04.00	3.3
1.2	3.1.2.16.b	20.03.04.00	3.1
1.1	3.1.2.16 (r74415)	20.02.03.00	3.0

System Software Release	Oracle ILOM SP Firmware	System BIOS	CPLD
1.0.1	3.1.0.16.a (r72433)	20.01.21.00	3.0
1.0	3.1.0.16.a (r72433)	20.01.21.00	3.0

Sun Blade 6000 Modular System Environment

The Sun Blade X3-2B is supported by two Sun Blade 6000 Modular System chassis, the A90–B and the A90–D. For some configurations, chassis support for NEMs, storage modules, server modules, and PCIe EMs might be different for both systems when the Sun Blade X3-2B is installed.

Note – To determine your chassis model, refer to the *Sun Blade 6000 Modular System Service Manual*.

The following topics describe the supported components and the configuration for each chassis:

- "Supported Components with A90–B Chassis " on page 18
- "Supported Components with A90–D Chassis " on page 19
- "Supported PCIe EMs" on page 20

Supported Components with A90–B Chassis

The Sun Blade X3-2B is currently supported for use in the A90–B Sun Blade 6000 Modular System chassis with the following configuration:

- PCIe 2.0 midplane
- Minimum chassis software release: 3.3.3

The following tables list the NEMs, storage modules, and server modules supported by the A90–B chassis when the Sun Blade X3-2B is installed.

Note – If a server module or NEM is installed in the chassis that is not listed in the following tables, it *must* be removed from the chassis *before* the Sun Blade X3-2B is installed.

Supported NEMs[1]
■ Sun Blade 6000 Virtualized Multi-Fabric 10GbE M2 NEM (X4338A, 4338A) ■ Sun Blade 6000 10p GbE Pass-Thru NEM (X4250A-N) ■ Sun Blade 6000 Ethernet Switched NEM 24p 10 GbE (X2073A-N)

[1] Additional FEM and REM support might be required for each NEM. See "FEMs and REMs Required for NEMs" on page 21.

Supported Server Modules
■ SPARC T3-1B server module ■ SPARC T4-1B server module ■ SPARC T5-1B server module ■ Sun Blade T6320 server module ■ Sun Blade T6340 server module ■ Sun Blade X6270 server module ■ Sun Blade X6270 M2 server module ■ Sun Blade X3-2B ■ Sun Blade X4-2B

Supported Storage Modules
Sun Blade Storage Module M2

Supported Components with A90–D Chassis

The Sun Blade X3-2B is currently supported for use in the A90–D Sun Blade 6000 Modular System chassis with the following configuration:

- PCIe 2.0 midplane
- Minimum supported chassis software release 4.2

The following tables list the NEMs, storage modules, and server modules supported by the A90–D chassis when the Sun Blade X3-2B is installed:

Note – If a server module or NEM is installed in the chassis that is not listed in the following tables, it *must* be removed from the chassis *before* the Sun Blade X3-2B is installed.

Supported NEMs [1]
■ Sun Blade 6000 10p GbE Pass-Thru NEM (X4250A-N) ■ Sun Blade 6000 Virtualized Multi-Fabric 10GbE M2 NEM (X4338A, 4338A) ■ Sun Blade 6000 Ethernet Switched NEM 24p 10 GbE (X2073A-N) ■ Sun Blade 6000 40 GbE Virtualized NEM (7100090) **Note –** See the chassis product notes for information on the CMM requirements for this NEM.

[1] Additional FEM and REM support might be required for each NEM. See "FEMs and REMs Required for NEMs" on page 21.

Server Modules
■ SPARC T3-1B server module ■ SPARC T4-1B server module ■ SPARC T5-1B server module ■ Sun Blade X3-2B ■ Sun Blade X4-2B ■ Sun Blade X6275 M2 GbE server module ■ Sun Blade X6275 M2 10 GbE server module ■ Sun Blade X6270 M2 server module

Storage Modules
Sun Blade Storage Module M2

Supported PCIe EMs

The following PCIe EMs are supported for use with the Sun Blade X3-2B in either the A90–B or A90–D Sun Blade 6000 Modular System chassis.

Type	Supported PCIe EMs
Gigabit Ethernet and Fibre Channel	■ Dual 8Gb Fibre Channel and Dual 1 GbE (Emulex) ■ Dual 8Gb Fibre Channel and Dual 1 GbE (Qlogic)
Gigabit Ethernet	■ Quad GigE MMS EM (Powerville) ■ Quad GigE UTP EM (Powerville)
10 Gigabit Ethernet	■ Dual 10 GbE SFP+ ■ Dual 10 GbE Base-T Copper
SAS Host Bust Adapter (HBA)	6Gb/s SAS2 ExpressModule HBA

Type	Supported PCIe EMs
FCoE 10 Gb/s Converged Network Adapter	■ Dual 10 GbE FCoE Twin-Ax Converged Network Adapter ■ Dual 10 GbE FCoE SR Optics Converged Network Adapter
Infiniband	QDR IB-HCA PCI-e

Supported Server Module Components

The following topics describe the supported components installed in the server:

FEMs and REMs Required for NEMs

The following FEMs and REMs are required to be installed on the server modules to support NEMs in the following table:

Note – For NEM requirements based on chassis model, see the relevant topic in the section: "Sun Blade 6000 Modular System Environment" on page 18.

Supported NEMs	Required FEM	Required REM
Sun Blade 6000 10p GbE Pass-Thru NEM (X4250A-N)	No FEM required.	No REM required.
Sun Blade 6000 Virtualized Multi-Fabric 10GbE M2 NEM (X4338A)	X4263A-N	SG-SAS6-REM-Z or SG-SAS6-R-REM-Z
Sun Blade 6000 Ethernet Switched NEM 24p 10 GbE (X2073A-N)	X4871A-Z	SG-SAS6-REM-Z or SG-SAS6-R-REM-Z
Sun Blade 6000 40 GbE Virtualized NEM (7100090)	7100283 (ATO) 7100633 (PTO)	SG-SAS6-REM-Z or SG-SAS6-R-REM-Z

Supported CPUs

The supported CPUs are listed in the following table.

Supported CPUs
■ Intel Xeon E5-2690 (8-core, 2.9 GHz) ■ Intel Xeon E5-2660 (8-core, 2.2 GHz) ■ Intel Xeon E5-2640 (6-core, 2.5 GHz) ■ Intel Xeon E5-2609 (4-core, 2.4 GHz)

Supported Memory

Twenty-four registered DDR3 DIMMs with ECC memory slots total (12 slots per CPU). The supported memory is listed in the following table.

Supported Memory
■ 8 GB DDR3 LV RDIMM 1600 MHz ■ 16 GB DDR3 LV RDIMM 1600 MHz

Supported Storage Drives

The server has four SAS/SATA 2.5–inch disk bays supporting HDs and SSDs. The supported storage drives are listed in the following table.

Supported Storage Drives
■ 300 GB 10000 rpm SAS-2 HDD ■ 600 GB 10000 rpm SAS-2 HDD ■ 100 GB SATA SSD ■ 300 GB SATA SSD

Supported Operating Systems

The following Hardware Compatibility Lists (HCLs) identify the latest operating system versions supported on Oracle hardware. To find the latest operating system version supported for the Sun Blade X3-2B, go to the following sites and search using your server model number:

Oracle Solaris -- `http://www.oracle.com/webfolder/technetwork/hcl/index.html`

Oracle Linux -- `http://linux.oracle.com/pls/apex/f?p=117:1:3991604960223967`

Oracle VM -- `http://linux.oracle.com/pls/apex/f?p=117:1:3991604960223967`

Windows -- `http://www.windowsservercatalog.com/`

VMware ESXi -- http://www.vmware.com/resources/compatibility/search.php

Red Hat Enterprise Linux -- https://access.redhat.com/certifications

SUSE Linux Enterprise Server -- https://www.suse.com/yessearch/Search.jsp

The following is a list of the operating systems supported for the Sun Blade X3-2B. As of 08–31–2014 date, the product has been EOL'd; last tested /supported versions are:

- Oracle Linux (64–bit) 5.7, 5.8, 5.9, 5.10, 6.1, 6.2, 6.3, 6.4, 6.5 (preinstalled option available), 7.0
- Oracle Solaris 10 8/11
- Oracle Solaris 11 11/11, 11.1 (preinstalled option available)
- RHEL 5.7, 5.8, 5.9, 5.10, 6.1, 6.2, 6.3, 6.4, 6.5, 7.0
- SLES 11 SP1, SP2, and SP3
- Oracle VM 3.2, 3.1.1, 3.0. Upgrade 3.0 to a minimum version of Oracle VM 3.0.2 using Oracle eDelivery at https://edelivery.oracle.com or Unbreakable Linux Network (ULN) at https://linux.oracle.com. (Also available as a preinstalled option.)

  Note – Oracle VM 3 does not support hotplug on Sun Blade X3–2B.

- VMware ESXi 5.0 and 5.0 update 1, 5.1
- VMware ESXi 5.5
- Windows Server 2008 SP2, Windows Server 2008 R2 SP1
- Windows Server 2012, Windows Server 2012 R2

Server Update Information

Server updates are available to maintain support, add enhancements, or correct issues. Updates can include new versions of firmware (BIOS and SP/Oracle ILOM), new releases of tools and drivers, and updates to any other packaged components. When an update is released the changes are detailed in the update's ReadMe file, which is accessible at the following sources:

- In Oracle System Assistant by clicking the Help button on the System Information page.
- On MOS as the top-level Readme.
- With any server package download from MOS.

Related Information

- "Getting Server Firmware and Software" on page 63
- "Integrated Lights Out Manager (ILOM)" on page 24

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

Integrated Lights Out Manager (ILOM)

Each server module compute node includes an SP. The SP contains Oracle ILOM, which provides IPMI 2.0 compliant remote server management capabilities.

The following interfaces provide network access to Oracle ILOM:

- Integrated Lights Out Manager (ILOM) through the server module node SP or CMM
- Local ILOM command-line access using serial connection
- 10/100 management Ethernet port to midplane
- Remote KVMS over IP

Related Information

For more information about ILOM, refer to the ILOM 3.1 documentation library:
`http://www.oracle.com/pls/topic/lookup?ctx=ilom31`

Hardware, Firmware, and BIOS Current Issues and Announcements

This section contains topics that describe hardware, firmware, and BIOS issues for the Sun Blade X3-2B. The following table lists the issues that are covered in this section.

Links to Issues	Workaround?
"Restore SW v1.2 BIOS Configuration Before Downgrading From SW v1.3 to v1.2—New" on page 26	NA
"SW 1.2: Wait Period Required During SP Update Process—(16040413)" on page 26	Yes
"DIMM Filler Panels are Now Optional" on page 26	NA
"Intel Quickpath Interconnect Error On Some 4-core and 6-core Servers (7146732)" on page 26	Yes
"Oracle ILOM restore_status Parameter Shows Partial Status (7167938)" on page 27	Yes
"Oracle ILOM 3.1 Might Not Support the Clearing of Faults Diagnosed by the Oracle Solaris 10 8/11 and Oracle Solaris 11 11/11 Operating Systems (7170842)" on page 27	Yes
"Unable to Change Serial Port Ownership Using the BIOS Setup Utility (7168093)" on page 28	Yes
"MegaRAID Storage Manager Unable to Assign Hot Spares on 3-TB Drives Using EFI Partitioning (7164218)" on page 28	Yes
"Oracle ILOM 3.1 Might Not Support the Clearing of Faults Diagnosed by the Oracle Solaris 10 8/11 and Oracle Solaris 11 11/11 Operating Systems (7170842)" on page 27	Yes
"New BIOS Boot Splash Screen" on page 29	NA
"Oracle Recommendations for Drive Slot Population and Virtual Drive Creation (7124194)" on page 29	NA
"PXE-booting Fails When Using Cisco Switch (7149683)" on page 29	Yes
"UEFI Boot List Settings Might Be Lost When Transitioning Between UEFI and Legacy Boot Modes (7080526)" on page 30	Yes

Links to Issues	Workaround?
"Physical Storage Drives Listed Twice on the Sun Blade 6000 Storage Module M2 (7116807)" on page 30	Yes

Restore SW v1.2 BIOS Configuration Before Downgrading From SW v1.3 to v1.2—New

Before downgrading the server from SW v1.3 to SW v1.2, restore the v1.2 BIOS configuration. If you do not restore the v1.2 BIOS configuration, the v1.3 BIOS configuration fails.

SW 1.2: Wait Period Required During SP Update Process—(16040413)

Caution – Loss of server functionality. Do not interrupt the SP update process. The SP update process, which includes two resets, must finish without interruption.

Beginning with software release v1.2 (SW v1.2), the field-programmable gate array (FPGA) is updated during the SP firmware update. The FPGA update occurs automatically. This automatic update can change the behavior of the SP firmware update process by potentially increasing its duration. First, the SP is updated and boots. Then, if needed, the FPGA is updated (6–8 minutes), and the blade is power cycled. Do *not* interrupt the update process. After the first SP reset, wait approximately 12 minutes before performing any server operation, including powering on or resetting the server.

DIMM Filler Panels are Now Optional

DIMM filler panels are now an optional component. The presence or absence of DIMM filler panels does not impact server cooling or airflow. For more information, refer to *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Service Manual*.

▼ Intel Quickpath Interconnect Error On Some 4-core and 6-core Servers (7146732)

Some servers with four-core or six-core processors might reset during an OS boot with the following logged Intel Quickpath interconnect error:

```
fault.cpu.intel.quickpath.interconnect
```

Workaround:

- **To resolve this issue, update to software release version 1.1 (SW v1.1) or later.**

Oracle ILOM restore_status Parameter Shows Partial Status (7167938)

When an Oracle ILOM UEFI BIOS configuration is loaded, the configuration file might contain typographical errors or inactive parameters (parameters that are no longer valid for the current version of the BIOS). This can result in the failure of one or more parameters to load.

When this occurs, the Oracle ILOM /System/BIOS/Config/restore_status parameter, which provides the user with the status of the last attempted configuration load, reports the configuration load as a partial restore. The value of /System/BIOS/Config/restore_status parameter will not change until a subsequent load of an Oracle ILOM UEFI BIOS configuration occurs.

Workaround:

1. **Using a text editor, create a file with the following contents:**

   <BIOS>

   </BIOS>

2. **Save the file with an .xml extension.**

3. **To load the configuration, enter the following command:**

   -> **`load -source`** *URI_location/file_name.xml* **`/System/BIOS/Config`**

   where *URI_location* is the path and *file_name.xml* is the file created in a previous step.

4. **If the host power is on, enter the following command to reset the host:**

   -> **`reset /System`**

Oracle ILOM 3.1 Might Not Support the Clearing of Faults Diagnosed by the Oracle Solaris 10 8/11 and Oracle Solaris 11 11/11 Operating Systems (7170842)

Oracle ILOM 3.1 might not be able to clear a fault diagnosed by the following Oracle Solaris operating systems:

- Oracle Solaris 10 8/11

- Oracle Solaris 11 11/11

Workaround:

- **Do one of the following:**
  - **Use the Oracle Solaris OS to clear the fault.**
  - **Run the following procedure from the faultmgmt shell of the Oracle ILOM CLI:**
    a. **Find the UUID of the faults in the output of 'fmadm faulty'.**
    b. **Clear the faults via 'fmadm acquit<UUID>.**

Unable to Change Serial Port Ownership Using the BIOS Setup Utility (7168093)

By default, the BIOS Setup Utility ownership setting of the external serial port (Advanced >Serial Port Console Redirection >External Serial Port) is assigned to the server SP and cannot be changed using the BIOS Setup Utility. To change the ownership setting, use the Oracle ILOM CLI.

Workaround:

- **To change the ownership of the serial port, do the following:**
  a. **Log in to the Oracle ILOM CLI.**
  b. **To change ownership of the external serial port, type the following command at the CLI prompt:**
     -> **`set /SP/serial/portsharing/owner=host`**
     Default value='SP'

MegaRAID Storage Manager Unable to Assign Hot Spares on 3-TB Drives Using EFI Partitioning (7164218)

MegaRAID Storage Manager (v11.08.03.02) might not be able to assign hot spares if the virtual drive is based on the SG-SAS6-REM-Z REM card and constructed on 3-terabyte (3-TB) drives using the Extensible Firmware Interface (EFI).

Workaround:

- **To assign a hot spare to this configuration, use the sas2ircu utility until the defect in MegaRAID Storage Manager is corrected.**

New BIOS Boot Splash Screen

The BIOS boot splash screen has changed. It is now branded with the Oracle hardware logo:

Oracle Recommendations for Drive Slot Population and Virtual Drive Creation (7124194)

For more information, refer to *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*

▼ PXE-booting Fails When Using Cisco Switch (7149683)

PXE booting the server fails when using a Cisco switch. This issue has two workarounds:

- **Do one of the following:**
  - **Log in to exec mode on the serial console of the switch and turn off Spanning Tree:**

    ```
    Router(config)#no spanning-tree
    ```

  - **Enable Portfast enhancement by typing the following command:**

Note – Portfast is a Cisco enhancement to spanning tree that allows ports to transition from a blocked/disabled/learning/listening state to the forwarding state. Enabling portfast allows devices to send and receive data as soon as the port is initialized.

```
Switch>enable Switch#configure terminal Switch(config)#spanning-tree
portfast default
```

To check the changes you made, run the following command:

```
Switch#show spanning-tree interface GigabitEthernet 0/48 portfast
```

▼ UEFI Boot List Settings Might Be Lost When Transitioning Between UEFI and Legacy Boot Modes (7080526)

Unified Extensible Firmware Interface (UEFI) boot priority list settings might be lost when transitioning between UEFI Boot and Legacy Boot BIOS modes. One possible scenario for switching between BIOS modes would be the need to access the Pc-Check utility, which only runs in the Legacy Boot mode. UEFI configuration settings should be saved prior to switching between UEFI and Legacy Only BIOS modes.

1. **Use the `ubiosconfig` application to save the configuration settings prior to transitioning between the BIOS modes.**

2. **Restore the BIOS configuration settings after transitioning back to UEFI mode.**

   For more information and procedures for saving UEFI configuration settings, refer to the *Oracle ILOM 3.1 Configuration and Maintenance Guide* in the Oracle ILOM 3.1 Documentation Library at: `http://www.oracle.com/pls/topic/lookup?ctx=ilom31`

▼ Physical Storage Drives Listed Twice on the Sun Blade 6000 Storage Module M2 (7116807)

When the following conditions are present, the physical drives on the Sun Blade 6000 Storage Module M2 might be listed twice:

- Sun Storage 6 Gb SAS REM HBA (SG-SAS6–REM-Z) REM is installed
- System is configured to boot in UEFI mode
- When a virtual drive is created using physical drives located on the Sun Blade 6000 Storage Module
- Two NEMs are installed in the chassis

- **Do one of the following before creating a virtual drive:**
  - **Remove one of the NEMs installed in the Sun Blade 6000 chassis. When this is done, the physical drives are listed once.**

    After the virtual drive has been created, the NEM can be replaced.
  - **Create a virtual drive in Legacy Boot mode as follows:**

    a. **Boot the server and enter the BIOS Setup Utility.**

    b. **Navigate to the Boot menu and change the UEFI/BIOS Boot Mode entry from UEFI to Legacy Boot Mode.**

    c. **Select Save Changes and Reset from the Setup Utility Save & Exit tab.**

    d. **When the system reboots, enter Ctrl-C when prompted to start the SG-SAS6–REM-Z setup utility.**

    e. **Create the virtual drive using the SG-SAS6–REM-Z setup utility.**

    f. **After creating the virtual drive, return to BIOS setup and change the boot mode back to UEFI.**

Oracle System Assistant Current Issues and Announcements

This section contains topics that describe Oracle System Assistant issues for the Sun Blade X3-2B. The following table lists the issues that are covered in this section.

Links to Issues	Workaround?
"Do Not Downgrade Server BIOS From SW 1.3 to SW 1.2 (18016911)—New" on page 34	No
"Manually Power On the System After Update to SW v1.3—New" on page 34	Yes
"Some Server's USB Drives Do Not Contain Oracle System Assistant" on page 34	Yes
"Platform Documentation Button Added to Interface" on page 35	Yes
"Update Path to Oracle System Assistant Version 1.2" on page 36	Yes
"Firmware Update Task Fails If There are No Hard Disks in the Server (7178868)" on page 37	Yes
"User Must Have Full Administrator Role Privileges to Update SP (7158820)" on page 37	Yes
"Some Operating Systems Do Not Mount the Oracle System Assistant USB Device" on page 38	Yes
"Oracle System Assistant Does Not Support Username "user" (7153741)" on page 38	Yes
"The Virtual Ethernet Device Is Reported as Not Installed in Windows 2008 (7129124)" on page 39	Yes
"Oracle System Assistant Cannot Be Used to Update a Sun Storage 6 Gb SAS PCIe HBA From Legacy BIOS Firmware to UEFI BIOS Firmware (7123372)" on page 39	Yes
"'Path too Long' Errors When Unzipping Windows Downloads (7116803)" on page 40	Yes
"Popup Message Appears in the Oracle ILOM Web Interface When Launching Oracle System Assistant With the Launch Button (7126194)" on page 40	Yes

Links to Issues	Workaround?
"Disks Might Not Appear During an Oracle System Assistant Installation of Windows 2008 R2 SP1 With an SG-SAS6–REM-Z and a Sun Blade 6000 Storage Module M2 (7152565)" on page 41	Yes

Do Not Downgrade Server BIOS From SW 1.3 to SW 1.2 (18016911)—New

During an Oracle System Assistant server firmware (SP/ILOM and BIOS) downgrade from SW v1.3 firmware to SW v1.2 firmware, the CPLD can become corrupted and the server unable to boot. Do not use Oracle System Assistant to downgrade the server BIOS from SW v1.3 to SW v1.2. You can still downgrade the server firmware using other methods (such as TFTP or CLI). (See also "Do Not Downgrade Server BIOS From SW 1.3 to SW 1.2 (18016911)—New" on page 34.)

Manually Power On the System After Update to SW v1.3—New

At the end of a successful Oracle System Assistant server update to SW v1.3, the server does not return to Oracle System Assistant, nor does it automatically power on. Instead, it remains in a power off state and needs to be manually powered on by pressing the front panel Power button.

▼ Some Server's USB Drives Do Not Contain Oracle System Assistant

Servers with serial numbers in the ranges listed below, might have shipped from the factory with unprogrammed Oracle System Assistant USB drives installed. By default, the drives are installed in every Sun Blade X3–2B server and programmed with a bootable package of server-specific tools, drivers, software, and firmware. However, for the potentially affected servers, the installed drives might not have been programmed and are not bootable. To verify the USB drive, attempt to launch (boot) Oracle System Assistant.

The ranges of potentially affected serial numbers:

- 1301FMY003-1301FMY009
- 1301FMY00A–1301FMY00R
- 1302FMY002–1302FMY009
- 1302FMY00A-1302FMY00Y
- 1302FMY010–1302FMY019

- 1302FMY01A-1302FMY01Y
- 1302FMY020–1302FMY029
- 1302FMY02A–1302FMY02Y
- 1302FMY04T–1302FMY04Y
- 1302FMY050–1302FMY059
- 1302FMY05A–302FMY05G
- 1303FMY006–1303FMY009
- 1303FMY00A–1303FMY00Y
- 1303FMY010–1303FMY016
- 1303FMY053, 1303FMY054
- 1303FMY08C–1303FMY08N
- 1303FMY092–1303FMY099
- 1303FMY09A–1303FMY09G
- 1304FMY001–1304FMY009
- 1304FMY00A–1304FMY01Y

Use this procedure to determine if the server USB drive can launch Oracle System Assistant and restore the drive, if necessary.

Workaround:

1. **Launch Oracle System Assistant.**

   For more information, refer to "Access Oracle System Assistant" in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

   If Oracle System Assistant launches, the server USB drive is programmed and no further action is required.

2. **If Oracle System Assistant did not launch, restore the USB drive software.**

   For more information, refer to "Recover Oracle System Assistant Software" in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*

More Information Related Information

- "Troubleshooting and Verifying Oracle System Assistant" in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*

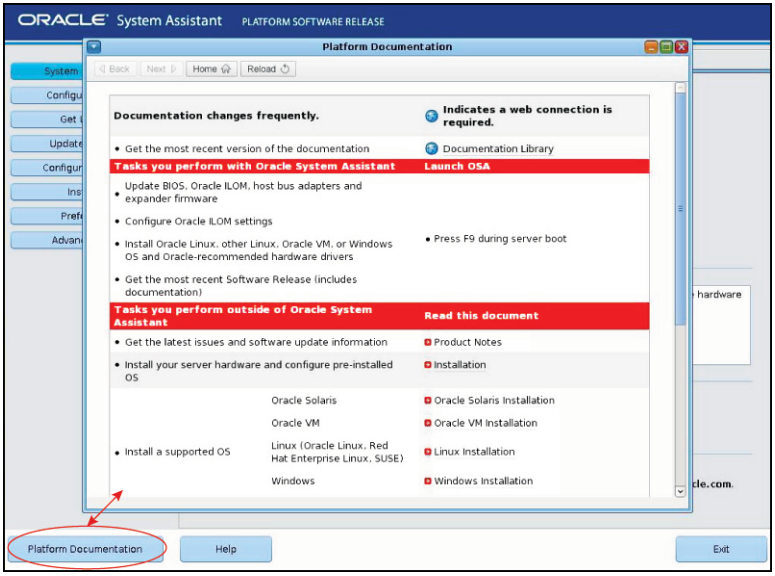
▼ Platform Documentation Button Added to Interface

Oracle System Assistant in software version 1.2 (SW v1.2) contains the capability to view the HTML versions of the server documentation that resides on the Oracle System Assistant USB device.

Note – The most up-to-date versions of the server documentation is available online in the server documentation library at `http://www.oracle.com/pls/topic/lookup?ctx=SunBladeX3-2B`.

- **To access the server documentation from Oracle System Assistant, click the Platform Documentation button located in the lower left of the interface.**

  A documentation viewer page appears.



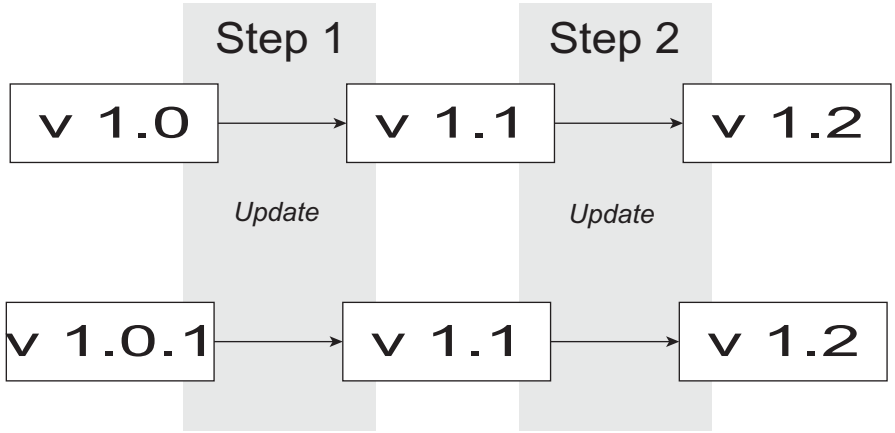
▼ Update Path to Oracle System Assistant Version 1.2

Servers with Oracle System Assistant software version 1.0 or 1.0.1 *must* be updated to Oracle System Assistant software version 1.1 *before* being updated to software version 1.2. Therefore, an update to software version 1.2 from version 1.0 or 1.0.1 requires a two-step process. First, update the server to software version 1.1; then, update the server to version 1.2.

Workaround:

- **Update the server to software version 1.1; then, update the server to version 1.2.**

  The following illustration provides a graphic representation of this two-step process:



For more information about updating Oracle System Assistant, refer to the *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

▼ Firmware Update Task Fails If There are No Hard Disks in the Server (7178868)

The Oracle System Assistant Firmware Update task fails if the server has no HDs. A popup window appears and reports the following error message:

```
Oracle System Assistant failed to get firmware version for the following
components:
```

Workaround

- **Add one or more HDs to the server and run the Firmware Update task again.**

User Must Have Full Administrator Role Privileges to Update SP (7158820)

When updating the Oracle ILOM/SP firmware from Oracle System Assistant using the USB/LAN local host interconnect, a login prompt appears. To perform the firmware update, you must log in as root, administrator, or as a user with advanced (aucro) role privileges.

Note – A log-in prompt does *not* appear when the local host interconnect is *not* USB/LAN. However, SP update times are increased (up to 40 minutes when the local host interconnect is not USB/LAN). The interconnect method is determined by the Local Host Interconnect setting in Oracle ILOM.

For firmware update procedures, refer to the section "Setting Up Software and Firmware " in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

▼ Some Operating Systems Do Not Mount the Oracle System Assistant USB Device

Some operating systems, such as Oracle VM 3.0, Oracle Solaris 10, and versions of Linux might not automount the Oracle System Assistant USB device.

- **Manually mount the device.**

  For instructions on how to mount the device on Oracle VM 3.0-, Oracle Solaris 10-, and Linux-based systems, refer to: "Mounting the Oracle System Assistant USB Flash Drive" in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

▼ Oracle System Assistant Does Not Support Username "user" (7153741)

Oracle System Assistant Service Processor Configuration task does not allow you to create a user with the username, "user." Additionally, while it is possible to create a user named as such using Oracle ILOM, the task does not allow the deletion or modification of that user.

Workaround:

- **Use the Oracle ILOM web interface or command-line interface to create, delete, and modify a user with a username of user.**

  For instructions on how to use Oracle ILOM, see the Oracle ILOM Documentation Library at:

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

The Virtual Ethernet Device Is Reported as Not Installed in Windows 2008 (7129124)

After installing the Windows Server 2008 SP2 and Windows Server 2008 R2 SP1 drivers, the Windows Device Manager reports that the virtual Ethernet device is not installed. Oracle System Assistant does not provide the driver for this interface. The driver is available with Oracle Hardware Management Pack.

Workaround:

- **Do one of the following:**
  - **To obtain this driver, install Oracle Hardware Management Pack, which is available as a supplemental tool on Oracle System Assistant.**
  - **To disable this device and prevent it from appearing in the Windows Device Manager, use the following command:**

    ```
    ilomconfig disable interconnect
    ```

Oracle System Assistant Cannot Be Used to Update a Sun Storage 6 Gb SAS PCIe HBA From Legacy BIOS Firmware to UEFI BIOS Firmware (7123372)

Oracle System Assistant cannot be used to update a Sun Storage 6 Gb SAS PCIe HBA from Legacy (non-UEFI) BIOS firmware to UEFI BIOS firmware.

Updating the HBA to Unified Extensible Firmware Interface (UEFI) BIOS firmware requires two consecutive firmware updates. Oracle System Assistant is unable to perform consecutive firmware updates on a single HBA. Instead, use the LSI `sas2flash` utility.

Perform the following workaround to update the HBA firmware using the LSI `sas2flash` utility:

1. **Download the OS version-specific `sas2flash` utility for the HBA at: `http://www.lsi.com/sep/Pages/oracle/sas_6gbs_support.aspx`**
2. **To identify the controller number, use the `sas2flash` utility to list all of the installed SAS2 (Sun Storage 6 Gb SAS PCIe) HBAs: -> `sas2flash -listall`**

3. **To update the HBA, use the following `sas2flash` commands, where *n* is the controller number displayed by the `sas2flash list` command in step 2.**

```
-> sas2flash -c n -f fw-rem-11050000-0a030019.bin
-> sas2flash -c n - b x64sas2-07180207.rom
-> sas2flash -c n - b mptsas2-7210400.rom
```

'Path too Long' Errors When Unzipping Windows Downloads (7116803)

When you unzip a downloadeded Windows package from, MOS using the default Windows Server 2008/2008R2 compression utility, you might get errors stating that the path is too long. Path length is determined by the Windows OS . The maximum path, which includes drive letter, colon, backslash, name components separated by backslashes, and a terminating null character, is defined as 260 characters.

Workaround:

- **Use a third-party compression utility.**

  Unlike the default Windows compression utility, some third-party utilities allow for longer maximum path lengths.

Popup Message Appears in the Oracle ILOM Web Interface When Launching Oracle System Assistant With the Launch Button (7126194)

The Oracle ILOM web interface summary page shows the host power status indicator as correctly reflecting the host power status. However, when you click the Oracle System Assistant Launch button, the host power status indicator might no longer correctly reflect the host power status, and the following popup message might appear:

```
Cannot retrieve host power status
```

- **Dismiss the popup and update the host power state information on the page by refreshing the web browser manually.**

▼ Disks Might Not Appear During an Oracle System Assistant Installation of Windows 2008 R2 SP1 With an SG-SAS6–REM-Z and a Sun Blade 6000 Storage Module M2 (7152565)

During Windows installation using Oracle System Assistant, all boot critical drivers are loaded during the WinPE phase. This causes the disks to disappear when the SG-SAS6–REM-Z driver is loaded.

1. **Before installing Windows 2008 R2 SP1, remove any Sun Blade 6000 Storage Module M2s from the Sun Blade 6000 chassis.**

2. **Reinstall the modules when Windows installation is finished.**

Linux Current Issues and Announcements

This section contains topics that describe Linux OS issues for the Sun Blade X3-2B. The following table lists the issues that are covered in this section.

Links to Issues	Workaround
"Oracle Linux 6.4: Hotswap of PEM Loses Interface and Generates Error (17801673)—New" on page 44	Yes
"RHEL 5.10: Hot Plug of PEM Causes Fault (18380484)—New" on page 44	Yes
"Oracle Linux OS Preinstall Available" on page 44	NA
"Oracle Linux 6.1 Installation Fails During Libparted Disk Probe (15770848)" on page 44	Yes
"Host Reset Might Cause a Linux System to Hang (16009236)" on page 45	Yes
"PCIe EM "Link Training Error" on RHEL Systems (16008349)" on page 45	Yes
"Oracle ILOM Not Getting System Information After Oracle Linux 6.2 (7175441)" on page 45	Yes
"Oracle System Assistant Assisted-OS Installation of SLES 11 Might Prompt for Root Password (7158471)" on page 46	Yes
"Sense Key: Recovered Error Messages Can Appear on the Console and in `/var/log/`messages. (7144197, 7158666)" on page 46	Yes
"Unable to Mount Oracle System Assistant USB Device on Some Versions of Linux" on page 47	Yes
"Oracle Linux and RHEL 6.1 `grub.efi` Cannot Be Used to Set Up a Network PXE Server for Booting UEFI Linux Clients (7095377)" on page 47	Yes
"Failure Occurs After Hot-Inserting a SAS-2 RAID Module (SGX-SAS6-EM-Z) (7088969)" on page 48	Yes
"Too Many PCI Cards or Modules Can Cause the System to Hang (6899040)" on page 48	Yes
"RHEL 6.1 kdump Does Not Work (7133869)" on page 49	Yes

▼ Oracle Linux 6.4: Hotswap of PEM Loses Interface and Generates Error (17801673)—New

For Oracle Linux 6.4: hotswapping the chassis PEM generates an error and loses Inifiband interfaces.

Workaround

- **Use the BIOS Setup Utility to set the MMIO to 64–bit.**

▼ RHEL 5.10: Hot Plug of PEM Causes Fault (18380484)—New

For RHEL 5.10, hotplugging the PEM causes a fault. To support hotplug for RHEL 5.10, change the PCI hotplug setting in BIOS, as described in the following workaround.

Workaround

- **In the BIOS Setup Utility, change the PCI hotplug setting from Auto to 128 bytes.**
  The setting is in the IO section under PCI Subsystem Settings.

Oracle Linux OS Preinstall Available

Oracle Linux is available as a preinstall option. Request the option when ordering a server.

▼ Oracle Linux 6.1 Installation Fails During Libparted Disk Probe (15770848)

Oracle Linux 6.1 installation might fail during the libparted disk probe if libparted encounters a preexisting partition.

Workaround:

- **Clear the disk of preexisting partitions and data before starting the installation of Oracle Linux 6.1.**
  For example, before starting the installation, use `dd` command clear the disk.

Host Reset Might Cause a Linux System to Hang (16009236)

The server integrated I/0 unit's VPP (Virtual Pin Port) might stall (hang) the system after a host reset (a software reset of the system that does not involve a power cycle).

Workaround:

- **Power reset the system.**

  A power reset involves cycling the power (powering off and on).

PCIe EM "Link Training Error" on RHEL Systems (16008349)

During a hotplug of some PCIe EMs, a fault LED might light and a "Link Training Error" message might appear in the dmesg log of systems running RHEL 5.8, 6.2, and 6.3 with the following PCIe EMs:

- SG-XEMFCOE2-Q
- SG-SAS6-EM-Z
- X4243A
- X1110A-Z
- 7100483
- 7100486

Workaround:

- **Repeat the PCIe EM hotplug.**

  Re-plug the PCIe EM.

Oracle ILOM Not Getting System Information After Oracle Linux 6.2 (7175441)

Oracle System Assistant installs Oracle Hardware Management Pack RPM, but the `hwmgmt` agent is not part of the RPM install and needs to be started manually.

Workaround

- **Manually start the `hwmgmt` agent.**

  Refer to the Oracle Hardware Management Pack documentation:

  `http://www.oracle.com/goto/OHMP/docs`

Oracle System Assistant Assisted-OS Installation of SLES 11 Might Prompt for Root Password (7158471)

When using Oracle System Assistant to perform an OS-assisted installation of SLES 11, a root password prompt might appear. The method by which the install volume was created (Oracle System Assistant or LSI WebBIOS) determines whether a password prompt appears. If the install volume was created using Oracle System Assistant (RAID Configuration task), then the password prompt does *not* appear. If the install volume was created using LSI WebBIOS, then a password prompt appears.

- **When the password prompt appears, type the following password:**

  `changeme`

Sense Key: Recovered Error Messages Can Appear on the Console and in `/var/log/`messages. (7144197, 7158666)

For Oracle Linux 5.8 kernel, Red Hat Enterprise Linux (RHEL) 5.8 kernel, and the SUSE Linux Enterprise Server (SLES) 11 Base Install, Service Pack 1 kernel—with certain hardware configurations—the kernal and smartd service might generate nuisance error messages. Systems using these kernels with `smartd` block device monitoring enabled and with an internal Sun Storage 6 Gb SAS PCIe RAID HBA that is connected to a SATA Drive (such as the 7101423 100 GB Solid State SATA Drive) running in RAW JBOD mode might generate and display multiple error messages on the system console or in `/var/log`/messages that are similar to the following sample:

```
Feb 9 18:24:58 X4270M3host kernel: [9108.314218] sd
0:0:0:0 [sda] Sense Key: Recovered Error
[current][descriptor]
Feb 9 18:24:58 X4270M3host kernel: [9108.314226]
Descriptor sense data with sense descriptors (in hex):
Feb 9 18:24:58 X4270M3host kernel: [9108.314229] 72 01
00 1d 00 00 00 0e 09 0c 00 00 00 00 00 00
Feb 9 18:24:58 X4270M3host kernel: [9108.314240] 00 4f
00 c2 00 50
Feb 9 18:24:58 X4270M3host kernel: [9108.314246] sd
0:0:0:0 [sda] Add. Sense ATA pass through information
available.
```

Affected hardware and software:

- Server-supported Sun Storage 6 Gb SAS PCIe RAID HBAs
- Oracle Linux 5.8
- Red Hat Enterprise Linux (RHEL) 5.8

Workaround:

- **Do one of the OS-specific workarounds:**
  - **For Oracle Linux 5.8 and RHEL 5.8:**
    a. **Ignore the messages.**
  - **For SLES 11 SP1:**
    a. **Ignore the messages or do one of the following:**
       - **Update to the latest errata kernel from SUSE.**

         -or-

       - **Disable smartd monitoring of all JBOD SATA drives under the Sun Storage 6 Gb SAS PCIe RAID HBA controllers.**

         Use the `smartctl` command to disable monitoring of the drive and to verify drive monitor status:

         # **`smartctl -s off /dev/`***device_name*

         where *device_name* is the name of the storage drive.

Unable to Mount Oracle System Assistant USB Device on Some Versions of Linux

See the following entry: "Some Operating Systems Do Not Mount the Oracle System Assistant USB Device" on page 38

▼ Oracle Linux and RHEL 6.1 `grub.efi` Cannot Be Used to Set Up a Network PXE Server for Booting UEFI Linux Clients (7095377)

UEFI Linux clients panic if booted from a Oracle Linux or RHEL 6.1 server.

Workaround:

- **Do one of the following before PXE booting from an Oracle Linux or RHEL 6.1 server:**
  - **Change the BIOS of the Sun Blade X3-2B server to Legacy mode.**
    The server boots.
    a. **At system boot, press F2 to enter the BIOS setup menu.**
    b. **Navigate to the BOOT menu.**
    c. **Change the UEFI/BIOS Boot mode to "Legacy".**
  - **Update the Oracle Linux 6.1 distribution grub.efi bootloader package on your PXE boot server.**
    You can obtain updates from ULN at `http://linux.oracle.com`.

Failure Occurs After Hot-Inserting a SAS-2 RAID Module (SGX-SAS6-EM-Z) (7088969)

A failure might occur after hot-inserting a SAS-2 RAID Module (SGX-SAS6-EM-Z) in a Sun Blade X3-2B that is running Oracle Linux 5.7/6.1, Red Hat Enterprise Linux 5.7/6, or SUSE Enterprise Linux 11 SP1. The failure might generate an error message similar to the following:

```
pciehp 0000:00:02.2:pcie04: Cannot add device at 0000:30:00
```

Workaround:

- **Reboot the blade with SAS-2 RAID Module (SGX-SAS6-EM-Z) installed.**

Too Many PCI Cards or Modules Can Cause the System to Hang (6899040)

If too many PCIe cards or PCIe EMs are installed in the system, the server might hang while booting OEL 5.7 Xen kernel, and the following message might appear on the console:

```
Starting udev: Wait timeout. Will continue in the background.[FAILED]
```

Workaround:

- **Do one of the following:**
  - **Add `pci=nomsi` in the kernel boot arguments**
  - **Remove unnecessary PCI cards or modules from the server module or chassis.**

▼ RHEL 6.1 kdump Does Not Work (7133869)

In OEL 6.1 and RHEL 6.1, kdump might sometimes hang when booting into the second kernel.

Workaround:

- **This issue is fixed in Oracle Linux 6.2 and RHEL 6.2.**

Oracle VM and VMware ESXi Issues and Announcements

This section contains topics that describe Oracle VM and ESXi software issues for the Sun Blade X3-2B.

Oracle VM Current Issues and Announcements

This section contains topics that describe Oracle VM OS issues for the Sun Blade X3-2B. The following table lists the issues that are covered in this section.

Link to Issue	Workaround
"Oracle VM Install for Large Memory Configurations Requires Additional Steps (7195262)" on page 51	Yes
"Oracle VM 3 Does Not Support PCIe EM Hotplug (1596465,16008372)" on page 52	Yes
"Unable to Mount Oracle System Assistant USB Device on Oracle VM 3.0.x (7149878)" on page 53	Yes
"Date Incorrect on Oracle VM 3.0 (7061790)" on page 53	No

▼ Oracle VM Install for Large Memory Configurations Requires Additional Steps (7195262)

Oracle VM installations for large memory configurations requires additional steps using Oracle System Assistant shell.

Before You Begin

- This procedure requires familiarity with vi editor.
- For more information about launching and using Oracle System Assistant, refer to *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*

1 Launch Oracle System Assistant.

You can launch Oracle System Assistant from the boot screen or from Oracle ILOM.

2. **To launch the shell, click the Advanced tab, click the Shell tab, and click the Start Shell button.**

   The Shell terminal window appears. The shell prompt appears:

   ```
   #
   ```

3. **Edit the `syslinux.ovm.cfg` file located at `/opt/osa/etc/osInstall/syslinux.ovm.cfg`.**

   ```
   # vi /opt/osa/etc/osInstall/syslinux.ovm.cfg
   ```

4. **Add the following parameter to all the labels:**

   `dom0_mem=max:128G` (max:126G for rescue label)

   After the edit, your file should look like this:

   ```
   # Copyright (c) 2011, 2012, Oracle and/or its affiliates. All rights reserved.
   default ks
   prompt 1
   timeout 30
   display boot.msg
   F1 boot.msg
   F2 options.msg
   label xen kernel mboot.c32 append xen.gz dom0_mem=max:128G --- vmlinuz ---
   initrd.img
   label p2v kernel mboot.c32 append xen.gz dom0_mem=max:128G --- vmlinuz p2v ---
   initrd.img
   label rescue kernel mboot.c32 append xen.gz dom0_mem=max:126G --- vmlinuz rescue
   --- initrd.img
   label ks kernel mboot.c32 append xen.gz dom0_mem=max:128G --- vmlinuz
   ks=file:/ks.cfg ---
   initrd.img
   ```

▼ Oracle VM 3 Does Not Support PCIe EM Hotplug (1596465,16008372)

Attempting to hotswap the PCIe EM for a server running Oracle VM 3.X might cause the server to reboot. Oracle VM 3 does not support hotplug/hotswap.

Workaround:

- **Do not hotplug/hotswap the PCIe EM. PCIe EM hotplug/hotswap is not supported.**

Unable to Mount Oracle System Assistant USB Device on Oracle VM 3.0.x (7149878)

See the following entry: "Some Operating Systems Do Not Mount the Oracle System Assistant USB Device" on page 38

Date Incorrect on Oracle VM 3.0 (7061790)

The Oracle VM server might boot with the current year set to 2005. The SP and Host TOD and RTC clocks are not synchronized, and the correct clock setting is not persistent between server boots.

VMware ESXi Current Issues

This section contains topics that describe VMware ESXi software issues for the Sun Blade X3-2B. The following table lists the issues that are covered in this section.

Link to Issues	Workaround
"ESXi Cannot Mount the Oracle System Assistant USB Device (7154313)" on page 53	No

ESXi Cannot Mount the Oracle System Assistant USB Device (7154313)

Oracle System Assistant USB device cannot be mounted on ESXi server, but the device can be accessed through the ESXi client after installing GUEST OS.

Oracle Solaris OS Issues and Announcements

This section describes issues with the supported Oracle Solaris operating systems for the Sun Blade X3-2B:

Oracle Solaris OS Patch List

CR	Summary	S10 Patch	S11 SRU
6986256	FMA for Intel E5-2600 processors	147706-02	SRU2
6893274	unowned mutex panic in turnstile_block() during thread migration		SRU1
7001739	AVX issue	147441-11	N/A
7034757	Power management issue for E5-2600		SRU4
7058497	Fixes for E5-2600 PCIe root port errata	148172-01	N/A
6956660	Performance counters for Intel E5-2600 processors	147156-01	N/A
7103754	Deadline TSC interrupt storm	N/A	SRU2
7099332	networktest test failing on igb ports	145930-08	SRU4
7041871	defect.sunos.eft.unexpected_memory is generated for cpu error	148173-02	N/A
7093589	Configure of EM fails with ARI enabled	148603-01	SRU4

CR	Summary	S10 Patch	S11 SRU
6938643	EM hotplug failed to detach driver	148099-01	N/A
6843559	sxge driver for x64 blade platforms	12918641 (MOS)	N/A

Oracle Solaris 10 and Solaris 11 OS Current Issues

This section contains topics that describe Oracle Solaris 10 OS and Oracle Solaris 11 OS issues for the Sun Blade X3-2B. The following table lists the issues that are covered in this section.

Links to Issues	Workaround
"Oracle Solaris 10 OS System Does Not Power Off Automatically—New" on page 56	Yes
"During Boot Driver Fails to Attach (18456809) — New" on page 57	Yes
"Oracle Solaris 11.1 OS Preinstall Available" on page 57	-
See "Oracle ILOM 3.1 Might Not Support the Clearing of Faults Diagnosed by the Oracle Solaris 10 8/11 and Oracle Solaris 11 11/11 Operating Systems (7170842)" on page 27.	Yes
"Unable to Mount Oracle System Assistant USB Device on the Oracle Solaris 10 8/11 OS" on page 57	Yes
"During Oracle Solaris 11 OS, Reboot SXGE Driver Causes System Panic (7121246, 7162938)" on page 58	Yes
"Power Status Appears in Violation On Oracle Solaris 10 8/11 OS (7162900)" on page 58	No
"Hotplug of QDR IB-HCA PCI-E Gen2 Mellanox ConnectX-2 Base EM Might Fail in S10 8/11 and S11 (7074000, 7098279)" on page 59	Yes
"Warning Appears During System Boot (6913723)" on page 59	Yes
"Hot Removal of Network Express Modules Fails With Oracle Solaris 11 OS (7083321)" on page 59	Yes

▼ Oracle Solaris 10 OS System Does Not Power Off Automatically—New

When the `sys-unconfig` command is run on an Oracle Solaris 10 OS system, the server might not automatically power off (as it should), and, instead, it might become unresponsive (hung) at the `syncing file systems..` message.

Workaround

- **Perform an immediate power off of the server.**

  Press and hold the front panel Power button for at least five seconds until the server powers off to standby power mode.

▼ During Boot Driver Fails to Attach (18456809) — New

When booting a system with Oracle Solaris 10 1/13 and SW v1.3, the system might fail and reset at the device configuration stage of the boot process with the following error message:

```
SunOS Release 5.10 Version Generic_147148-26 64-bit

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Configuring devices.

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

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

This is caused by the BIOS 64–bit PCI Resource Allocation setting. This setting needs to be disabled because Oracle Solaris 10 1/13 OS does not support 64–bit addresses in PCIe.

Workaround

- **Use the BIOS Setup Utility to disable the PCI Resource Allocation setting.**

  The setting is in the IO screens.

Oracle Solaris 11.1 OS Preinstall Available

The Oracle Solaris 11.1 OS is now available as a preinstall option. Request the option when ordering a server.

Unable to Mount Oracle System Assistant USB Device on the Oracle Solaris 10 8/11 OS

See the following entry: "Some Operating Systems Do Not Mount the Oracle System Assistant USB Device" on page 38

During Oracle Solaris 11 OS, Reboot SXGE Driver Causes System Panic (7121246, 7162938)

When an Oracle Solaris 11OS server is rebooted, the sxge driver might cause the system to panic.

Workarounds:

- **Do one of the following workarounds:**
  - **Unload the sxge driver before rebooting:**
    a. **Ensure that the sxge interfaces are not configured.**
       If the interfaces are configured, use `ipadm` command.
    b. **To unload the sxge driver:**
       `modunload -i` *module_id*'
       where *module_id* is the module ID number, which can be discovered from modinfo.
       For example:
       To discover the module ID, run the following command:
       ```
       # modinfo | grep sxge
       ```
       Sample output from the command:
       ```
       185 ffffffff7e49158 15398 144 1 sxge (SOL 10/40G Ethernet)
       ```
       The module ID in the above example is `185`, so use the following command to unload the driver:
       ```
       # modunload -i 185
       ```
  - **Issue a shutdown to enter single-user mode:**
    # **`shutdown -y`**
    Once the system enters single-user mode, log in to the system and reboot.

Power Status Appears in Violation On Oracle Solaris 10 8/11 OS (7162900)

Oracle ILOM power limit setting fails if enabled before the server boots the Oracle Solaris 10 8/11 OS.

Workaround:

- **None.**

  Hard caps are not compatible with this release of the Oracle Solaris OS.

Hotplug of QDR IB-HCA PCI-E Gen2 Mellanox ConnectX-2 Base EM Might Fail in S10 8/11 and S11 (7074000, 7098279)

In Oracle Solaris 10 8/11 OS and Oracle Solaris 11 OS, hotplugging a QDR IB-HCA PCI-E Gen2 Mellanox ConnectX-2 Base EM might fail.

- **To hotplug the EM, run the following commands:**

  # **rem_drv iser**

  # **rem_drv rdsv3**

  # **reboot**

Warning Appears During System Boot (6913723)

The following warning might appear on the console during system boot in Oracle Solaris 10 8/11 OS:

```
WARNING: pci_process_acpi_device: invalid _BBN 0xfc
```

- **The warning is harmless and can be ignored.**

Hot Removal of Network Express Modules Fails With Oracle Solaris 11 OS (7083321)

The hot removal of NEMs might fail with Oracle Solaris 11 OS. If NWAM is enabled using Automatic NCP, the network driver might not detach and the hot removal of a NEM might fail. When an attempt is made to hot remove a NEM, a message similar to the following might appear in the log file:

```
Aug 24 17:15:33 unknown genunix: [ID 730752 kern.warning] WARNING: (pcieb2):
failed to detach driver for the device (ixgbe0) in the Connection Slot1

Aug 24 17:15:33 unknown genunix: [ID 902422 kern.warning] WARNING: (pcieb2):
failed to unconfigure the device in the Connection Slot1
```

1. **Verify that the Automatic NCP profile is enabled on your system:**

   # **netadm list**

A table listing appears. The following entry in the table indicates that NCP is enabled:

```
TYPE        PROFILE        STATE
ncp         Automatic      online
```

2 If enabled, perform one of the following sequences:

- **Disable NWAM, hotplug NEM, and enable NWAM**

  a. **Enter the following command:**

     `svcadm disable svc:/network/physical:default`

     Note – Upon issuing the above command, the network becomes inaccessible. The only way to access the host would be through the serial console, the Oracle ILOM Remote Console application, or a direct attached terminal.

  b. **Hot unplug the NEM.**

  c. **Enable NWAM from either the serial console, the Oracle ILOM Remote Console application, or a direct attached terminal**

     `svcadm enable svc:/network/physical:default`

- **Switch NCP modes, configure NICs, and hotplug NEM**

  a. **Switch from the Automatic NCP to either the DefaultFixed NCP or any other user defined NCP.**

     Note – Upon issuing the above command, the network becomes inaccessible. The only way to access the host would be through the serial console, the Oracle ILOM Remote Console application, or a direct attached terminal.

  b. **Configure the appropriate NICs using the `ipadm` command through either the serial console, the Oracle ILOM Remote Console application, or a direct attached terminal.**

  c. **Hot unplug the NEM.**

Windows Current Issues and Announcements

This section contains topics that describe Windows OS issues for the Sun Blade X3–2B. The following table lists the issues and announcements.

Links to Issues	Workaround
"Qlogic Network HBA Drivers Not Available in SW v1.3—New" on page 61	No
"Windows Server 2012 and Windows Server 2012 R2 Do Not Support NEM—New" on page 61	No
"Windows Server 2012 and Windows Server 2012 R2 Do Not Support NEM—New" on page 62	No
"Error Message When Starting hwmgmtcli Tool (15909859)" on page 62	Yes

Qlogic Network HBA Drivers Not Available in SW v1.3—New

The drivers for the FCoE 10 Gb Converged Network Adapter HBAs are not available in SW v1.3.

Windows Server 2012 and Windows Server 2012 R2 Do Not Support NEM—New

Windows Server 2012 and 2012 R2 do not support the Sun Blade 6000 40 GbE Virtualized NEM (7100090).

Windows Server 2012 and Windows Server 2012 R2 Do Not Support NEM—New

Windows Server 2012 and Windows Server 2012 R2 do not support the Sun Blade Virtualized Multi-Fabric M2 NEM (Network Express Module).

▼ Error Message When Starting hwmgmtcli Tool (15909859)

The Oracle HMP tool, hwmgmtcli, might not work after Windows 2008 SP2 and Windows 2008 R2 installation. When hwmgmtcli is called, the following error message appears:

```
This application has failed to start because hwmgmtcommon.dll was not found.
Re-installing the application may fix this problem.
```

The Oracle HMP agents are not installed unless the SNMP agent is installed first. SNMP must be installed before installing the Oracle Hardware Management Agent.

Workaround:

- **Install SNMP service and then reinstall the Oracle HMP agents by clicking the `oracle-hmp-agents.msi` file in the Oracle HMP software package provided on the Oracle System Assistant USB device or in the server- and Windows OS-specific download package available from the MOS site.**

Getting Server Firmware and Software

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

Description	Links
Learn about server firmware and software updates.	"Firmware and Software Updates " on page 63
Learn about the options for accessing firmware and software.	"Firmware and Software Access Options" on page 64
View the available firmware and software packages.	"Available Software Release Packages" on page 64
Access the firmware and software packages through Oracle System Assistant, My Oracle Support, or a physical media request.	"Accessing Firmware and Software" on page 65
Install firmware and software updates.	"Installing Updates" on page 69

Firmware and Software Updates

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

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

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

Firmware and Software Access Options

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

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

  For more information about using Oracle System Assistant, refer to "Access Oracle System Assistant Remotely" in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.

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

  For more information about what is available on the My Oracle Support, see "Available Software Release Packages" on page 64.

  For instructions on how to download software releases from My Oracle Support, see: "Download Firmware and Software Using My Oracle Support" on page 66.

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

  For information see: "Request Physical Media (Online)" on page 67.

Available Software Release Packages

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

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

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

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

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

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

Accessing Firmware and Software

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

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

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

- "Download Firmware and Software Using My Oracle Support" on page 66
- "Requesting Physical Media" on page 66

▼ Download Firmware and Software Using My Oracle Support

1. **Go to:** `http://support.oracle.com`
2. **Sign in to My Oracle Support.**
3. **At the top of the page, click the Patches and Updates tab.**
   The Patches and Updates screen appears.
4. **In the Search screen, click Product or Family (Advanced Search).**
   The screen appears with search fields.
5. **In the Product field, select the product from the drop-down list.**
   Alternatively, type a full or partial product name (for example, Sun Blade X3-2B) until a match appears.
6. **In the Release field, select a software release from the drop-down list.**
   Expand the folders to see all available software releases.
7. **Click Search.**
   The software release comprises a set of downloads (patches) .
   See "Available Software Release Packages" on page 64 for a description of the available downloads.
8. **To select a patch, click the check box next to the patch name (you can select more than one patch).**
   A pop-up action panel appears. The panel contains several action options.
9. **To download the update, click Download in the pop-up panel.**
   The download begins automatically.

Requesting Physical Media

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

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

Description	Link
Gather information you will need to provide for the request.	"Gathering Information for the Physical Media Request" on page 67
Make the physical media request either online or by calling Oracle Support.	"Request Physical Media (Online)" on page 67 "Request Physical Media (by Phone)" on page 68

Gathering Information for the Physical Media Request

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

Before you make the PMR, gather the following information:

- **Obtain product name, software release version, and patches required**. It will be easier to make the request if you know the latest software release and the name of the download packages (patches) that you are requesting.
  - *If you have access to My Oracle Support* – Follow the instructions in "Download Firmware and Software Using My Oracle Support" on page 66 to determine the latest software release and view available downloads (patches). After viewing the list of patches, you can navigate away from Patch Search Results page, if you do not want to continue with the download steps.
  - *If you do not have access to My Oracle Support* – Use the information in "Available Software Release Packages" on page 64 to determine which packages you want, then request these packages for the latest software release.
- **Have the shipping information ready**. You will need to provide a contact, phone number, email address, company name and shipping address for the request.

▼ Request Physical Media (Online)

Before You Begin Gather the information described in "Gathering Information for the Physical Media Request" on page 67 before making the request.

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

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

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

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

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

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

6 **Click Next.**

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

8 **Click Submit.**

▼ Request Physical Media (by Phone)

Before You Begin Gather the information described in "Gathering Information for the Physical Media Request" on page 67 before making the request.

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

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

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

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

Installing Updates

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

- "Installing Firmware" on page 69
- "Installing Hardware Drivers and OS Tools" on page 70

Installing Firmware

Updated firmware can be installed using one of the following:

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

  For more information, go to:

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

  For more information, refer to "Setting Up Oracle System Assistant and Updating the Server" in *Sun Blade X3-2B (formerly Sun Blade X6270 M3) Administration Guide*.
- **Oracle Hardware Management Pack** – The `fwupdate` CLI tool within the Oracle Hardware Management Pack can be used to update firmware within the system.

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

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

Installing Hardware Drivers and OS Tools

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

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

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

  For more information, refer to your OS documentation.