



Sun Fire™ X2100 M2 Server Product Notes

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Sun Fire X2100 M2 Server

Product Notes

This document contains late-breaking information and issues for the Sun Fire™ X2100 M2 server.

The following issues are covered in these product notes:

- [“General Information” on page 2](#)
- [“Latest Firmware Update” on page 3](#)
- [“Documentation Issues” on page 6](#)
- [“Hardware and BIOS” on page 7](#)
- [“System Management General Issues” on page 9](#)
- [“System Management Web GUI or Remote Console Issues” on page 15](#)
- [“System Management Browser Issues” on page 19](#)
- [“Diagnostics Issues” on page 20](#)
- [“Operating Systems Issues” on page 21](#)
- [“Issues Fixed With Previous Tools and Drivers CD Updates” on page 24](#)

General Information

Supported Operating Systems

The Sun Fire X2100 M2 server supports the following operating systems:

- Solaris 10 6/06 (or later) with Java Enterprise System (Java ES)
- Red Hat Enterprise Linux (RHEL) 3, update 7 (or later) 32-bit and 63-bit (ES and AS)
- RHEL 4, update 3 (or later) 32-bit and 63-bit (ES and AS)
- SUSE Linux Enterprise System 9, SP 3 (or later) 64-bit
- SUSE Linux Enterprise System 10
- Windows 2003 SP1 (or later) 32-bit and 63-bit Standard Server (WHQL certified)

For more information about supported operating systems for the Sun Fire X2100 M2 server, go to <http://www.sun.com/servers/entry/x2100/os.jsp>.

Sun Fire X2100 M2 Documentation Set

The entire Sun Fire X2100 M2 documentation set is available online to view or download at:

<http://docs.sun.com/app/docs/prod/sf.x2100m2~x2100m2>.

The documentation set is comprised of the following documents:

- Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and Sun Fire X2200 M2 Servers
- Sun Fire X2100 M2 Server Installation Guide]
- Sun Fire X2100 M2 Server Service Manual
- Where to Find Sun Fire X2100 M2 Server Documentation
- Sun Fire X2100 M2 Server Operating System Installation Guide
- Sun Fire X2100 M2 Server Safety and Compliance Guide [Download this Book]
- Sun Fire X2100 M2 Server Product Notes

Translated versions of some of these documents are available by going to <http://docs.sun.com>, changing the language setting, and navigating to the x64 Servers product category.

Latest Firmware Update

The latest Sun Fire X2100 M2 Server firmware update is available on the Tools and Drivers CD v1.5. You can download the ISO image of this Tools and Drivers CD at: <http://www.sun.com/servers/entry/x2100/downloads.jsp>

The following sections describe the changes resulting from the latest firmware update:

- [“Firmware Update General Information”](#) on page 3
- [“New Features in Tools and Drivers CD v1.5”](#) on page 5
- [“Issues Fixed With Previous Tools and Drivers CD Updates”](#) on page 24

Firmware Update General Information

Table 1 describes what happens when you update the BIOS and SP remotely (that is, not booting from the Tools and Drivers CD). You should test and monitor the update on one system before performing a remote multiple system update.

TABLE 1 Remote BIOS/SP Updates

When upgrading from...	to...	the following will occur...
1.1	1.3	Optimized defaults are loaded and all customized BIOS settings are lost.
1.2	1.3	The CMOS settings are preserved. PowerNow disabled by default.
1.1	1.4	Optimized defaults are loaded and all customized BIOS settings are lost.
1.2	1.4 and newer	The update process will require user intervention, see “Updates From v1.2 to v1.4 (and Greater) Not Recommended for Remote Updates” on page 4.
1.3	1.4 and newer	Option exists to either load optimized defaults or preserve the CMOS settings, see “Option to Preserve or Clear CMOS Settings During Update” on page 27.
1.4	1.5	Option exists to either load optimized defaults or preserve the CMOS settings. see “Option to Preserve or Clear CMOS Settings During Update” on page 27.

Table 2 shows the BIOS and SP versions available on each version of the Tools and Drivers CD.

TABLE 2 Tools and Drivers CD Software Versions

Image Version	BIOS	SP
1.1	3A05	1.80
1.2	3A07	1.91
1.3	3A12	2.70
1.4	3A15	2.91
1.5	3A16	3.09

Updates From v1.2 to v1.4 (and Greater) Not Recommended for Remote Updates

During the update from BIOS v1.2 to BIOS v1.4, a checksum error occurs which requires user intervention. To avoid user intervention, when remotely updating multiple systems with a script or N1SM, you should update to v1.3 before updating to v1.4.

Firmware Downgrade Information

Due to the new implementation requiring SP and BIOS changes, use the option to preserve CMOS settings when downgrading firmware from release v1.4 to an earlier version, see [“Option to Preserve or Clear CMOS Settings During Update” on page 27](#).

Note – Some downgrade paths might require user intervention due to checksum errors. Always test the downgrade on one system before performing a remote multiple system downgrade.

New Features in Tools and Drivers CD v1.5

The following is a list of new features available in the Tools and Drivers CD v1.5.

- SP/BMC/ELOM
 - Redesigned BMC web graphical user interface (see “[BMC Web GUI Improved](#)” on page 5).
 - Strengthened BMC security (see “[BMC Security Strengthened: Recommended Upgrade](#)” on page 5).
 - BMC supports setting internal serial port baud rate.
 - BIOS supports setting COM 2 baud rate.
- Drivers
 - Solaris: AST 2000 video driver updated to v0.84.05.
 - Linux: Nvidia chipset drivers updated to v1.23.
- SNMP
 - Updated OIDs.
- Pc-Check
 - Update to v6.05d.

BMC Web GUI Improved

The BMC web GUI has been redesigned for ease of use and to align its “look and feel” with other Sun products. See the revised *Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and Sun Fire X2200 M2 Servers*. This and other Sun Fire Server documentation is available at:

<http://docs.sun.com/app/docs/coll/x2100m2>

BMC Security Strengthened: Recommended Upgrade

Installing BMC firmware v3.09 strengthens system security and is a recommended upgrade. The X2100 M2 is susceptible to unauthorized access when the BMC firmware is at v2.91. Security vulnerability is greatly reduced by upgrading to BMC v3.09. For more information, see “[Security Vulnerability in BMC Email](#)” on page 9.

Documentation Issues

The following issues apply to the Sun Fire X2100 M2 documentation set.

Incorrect Sun N1 System Manager Version Stated in the ELOM Administration Guide

A note on page four of the *Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and the Sun Fire X2200 M2 Servers*, 819-6588-12 (December 2006) incorrectly states the Sun N1 System Manager version. The note should read:

Version 1.3.1 of Sun N1 System Manager does not support Sun Fire X2100 M2 or Sun Fire X2200 M2 servers. Although these systems are recognized by the software, customers should upgrade to v1.3.2 (or later versions) of Sun N1 System Manager for Sun Fire X2100 M2 or Sun Fire X2200 M2 server support.

This note will be corrected in the next revision of the *Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and the Sun Fire X2200 M2 Servers*.

Hardware and BIOS

The following issues apply to the Sun Fire X2100 M2 server hardware and/or BIOS:

- [“Baud Rate for the Internal Serial Port and COM2 Must be the Same Value” on page 7](#)
- [“Scripting the SP/BIOS Flash Process” on page 7](#)
- [“PCI Express Card Limitations” on page 8](#)
- [“Front USB Port Cable Limitations” on page 8](#)

Baud Rate for the Internal Serial Port and COM2 Must be the Same Value

With the update available on the Tools and Drivers CD v1.5, BIOS v3A16 allows you set the COM2 baud rate, and BMC v3.09 allows you to set the internal serial port. The default baud rate setting for both COM2 and the internal serial port is 9600. If changed the setting for both these values must match.

Scripting the SP/BIOS Flash Process

The SP/BIOS flash process includes an “Update Successful” message. This message signals the end of the SP flash activity *only*. At this point in the process the BIOS has *not* been flashed, and premature termination of the process (for example, a manual reboot) will result in BIOS corruption. Review the sequence below to avoid accidentally corrupting the BIOS:

Note – Before writing a script to flash the BIOS/SP remotely, observe the sequence in real-time and test the script on a single system before updating all systems.

1. SP begins the flash process.
2. SP finishes the flash process.
3. CLI returns an Update Successful message.
4. The system reboots and the BIOS begins the flash process.
5. The BIOS flash process finishes.

PCI Express Card Limitations

Please note the following issues regarding PCI Express (PCIe) card installation.

- For the Ultra-320 PCIe card (SG-XPCIE2SCSIU320Z), there is a slot restriction associated with this card. This card is limited to the top x8 slot (PCIe-0 slot). Do not insert this card into the lower PCIe-1) slot. There are mechanical clearance issues associated with the cabling if you insert this card into the bottom slot.
- For the Infiniband card (X1236A-Z), there is a slot restriction for early generations of the riser assembly. If you have an early version of the riser assembly, you can only install this card in the lower PCIe x8 slot (PCIe-1 slot). Cabling to the card causes a mechanical interference when this card is used in the top slot. This restriction is limited to a small amount of early systems, and has been corrected in subsequent systems.

To identify an early version of the riser assembly, check if the riser assembly is protruding out the back of the system beyond the top cover, approximately 2.5 mm.

- The x16 PCIe card and riser assembly only supports Nvidia Quadro Plex graphics cards.

Front USB Port Cable Limitations

The front USB ports will only support a 3-meter cable to an attached device.

System Management General Issues

The following issues apply to the Sun Fire X2100 M2 Server Embedded Lights Out Manager (ELOM) Service Processor (SP):

- “Security Vulernability in BMC Email” on page 9
- “IPMItool 1.8.9 Returns Incorrect Memory Information” on page 9
- “Service Processor Reset When Issuing a Remote Power-on Command” on page 10
- “Changing the SP netmask Causes Routing Table Flush” on page 10
- “No Output When Running the `start /SP/AgentInfo/console` command” on page 10
- “The Sun Splash Screen in the Serial Console Does Not Display” on page 13

Information about the ELOM is available in the *Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and Sun Fire X2200 M2*.

Security Vulernability in BMC Email

Sun Fire X2100 M2 server systems with SP/BMC firmware v2.91 have susceptibility to unauthorized access via the BMC. An open port in BMC email provides the potential for unwanted traffic. Upgrading the BMC to v3.09 using the Tools and Drivers CD v1.5 will close this open port and strengthen system security. *Sun recommends this upgrade for all Sun Fire X2100 M2 servers.* Download the Tools and Drivers CD v1.5 ISO image at:

<http://www.sun.com/servers/entry/x2100/downloads.jsp>

IPMItool 1.8.9 Returns Incorrect Memory Information

Direct Reading of the SPD memory is not supported in IPMItool 1.8.9. Using the IPMItool `fru print` command will result in a return of incorrect memory information. An updated IPMItool utility is required for this to work properly. Software support has been added on the server.

Service Processor Reset When Issuing a Remote Power-on Command

With firmware versions 1.2 and lower, the SP might reset when you issue a power-on command following a power-off command via IPMItool or the command line interface (CLI).

Workaround:

1. **Update the Sun Fire X2100 M2 firmware with v1.3 or later.**

You can download firmware from the following site.

<http://www.sun.com/servers/entry/x2100/downloads.jsp>

2. **Power down the system gracefully before powering it back on.**

Use the appropriate command.

- If you are using IPMItool:

```
ipmitool -A password -H IP_address -I lan -U user -P password  
chassis power soft
```

IP_address The SP IP address. *user* The SP user name. *password* The SP password.

- If you are using CLI:

```
set PowerCtrl=gracefuloff
```

Changing the SP netmask Causes Routing Table Flush

If you change the IP address or netmask of the BMC, the routing table will change after you update the BMC network configuration. Therefore, you will need to re-enter the gateway information or reset the BMC.

No Output When Running the `start /SP/AgentInfo/console` command

When running the `start /SP/AgentInfo/console` command you must configure the OS to see the output. Refer to the procedures below for configuring each OS:

Red Hat Linux Enterprise Server (RHEL)

Minimum versions for this procedure: RHEL 3U7 and RHEL 4U3

1. Use a text editor to edit the `/etc/grub.conf` file.
2. Append the following to the kernel boot parameter line:
`console=tty1 console=ttyS1, baudrate`
baudrate 9600 (default value) or the baud rate set in the BMC and BIOS.
For example, the new kernel boot parameter line should look similar to this:
`kernel /vmlinuz-2.x.x ro root=LABEL/1 rhgb quiet console=tty1
console=ttyS1, 9600`
3. Edit the `/etc/securetty` file.
 - a. Add **`ttyS1`** to the bottom of the file.
 - b. Save and Exit the file.
4. Edit the `/etc/inittab` file.
 - a. Change **`id:5:initdefault:`** to **`id:3:initdefault:`**
 - b. Under the section "Run gettys in standard runlevels" add the following as the first line:
`co:2345:respawn:/sbin/agetty ttyS1 baudrate vt100`
 - c. Save and exit the file.
5. Reboot.

SUSE Linux Enterprise Server (SLES)

Minimum versions for this procedure: SLES 9 SP3

1. Use a text editor to edit the `/boot/grub/menu.lst` file.
2. Append the following to the kernel boot parameter line:
`console=ttyS1, baudrate`
baudrate 9600 (default value) or the baud rate set in the BMC and BIOS.
For example, the new kernel boot parameter line should look similar to this:
`kernel /boot/vmlinuz root=/dev/sda2 resume=/dev/sda1
splash:silent showps console=tty0 console:ttyS1, 9600`
3. Edit the `/etc/securetty` file.

- a. To the bottom of the file, add:


```
ttys1
```
- b. Save and exit the file.
4. Edit the `/etc/inittab` file.
 - a. Change `id:5:initdefault:` to `id:3:initdefault:`
 - b. Under “`getty-programs for normal runlevels:`” add the following line:


```
S0:12345:respawn:/sbin/agetty -L baudrate ttys1 vt100
```
5. Save and exit the file.
6. Reboot.

Solaris 10 6/06

1. Edit the `/boot/solaris/bootenv.rc` file to read:


```
setprop console `ttyb`
setprop ttyb-mode baudrate,8,n,1,-
baudrate 9600 (default value) or the baud rate set in the BMC and BIOS.
```
2. Edit the `/boot/grub/menu.lst` file to read:


```
kernel /platform/i86pc/multiboot -B console=ttyb
```
3. Edit the `/kernel/drv/asy.conf` file and add the following:


```
name="asy" parent="isa" reg=1, 0x2f8 interrupts=3;
```
4. Edit the `/var/svc/manifest/system/console-login.xml` file to read:


```
<propval name='label' type='astring' value='baudrate' />
baudrate 9600 (default value) or the baud rate set in the BMC and BIOS.
```
5. Save and exit the file.
6. Use the following command to Reboot the system:


```
reboot -- -r
```

The Sun Splash Screen in the Serial Console Does Not Display

When booting the system with the console output directed to the serial port, the Sun splash screen will not appear, and you will not see the prompt to press F2 to enter the BIOS. Use the following procedure to disable the Sun splash screen:

1. **Press the F2 key to enter the BIOS Setup Utility.**
2. **Select Boot, and then select Boot Setting Configuration.**
3. **Set the boot setting to `quiet boot - disable`.**

This will enable a prompt to press F2.

System Management Virtual Device Issues

The following issues are related to a virtual device connected to the ELOM remote console system:

- [“Virtual CD-ROM Appears To Be Unmounted in SLES 9 SP3” on page 13](#)
- [“Some Virtual USB Flash Devices Do Not Mount in Solaris” on page 14](#)

More information about the ELOM remote console system is available in the *Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and Sun Fire X2200 M2*.

Virtual CD-ROM Appears To Be Unmounted in SLES 9 SP3

The virtual CD-ROM appears to be unmounted when the remote console is run on a SLES 9 SP3 system. This is because the dialog box does not pop-up when the CD is mounted. SLES 10 handles this much better.

Workaround: Access the virtual CD-ROM from the `/media` directory.

Some Virtual USB Flash Devices Do Not Mount in Solaris

For some USB flash devices, the virtual device will appear mounted in the ELOM, when it is not actually mounted.

This issue is under investigation.

System Management Web GUI or Remote Console Issues

The following issues are related the Embedded Lights Out Manager (ELOM) Remote Console and web GUI:

- [“New ELOM Web GUI Available” on page 15](#)
- [“Minimum Supported Version for a Remote Sparc System” on page 16](#)
- [“Solaris Remote Console Session Requires Java Plug-in” on page 16](#)
- [“Web GUI Supports Firefox Versions 1 and 2 on Windows” on page 17](#)
- [“Disabling the Web GUI Timeout Function” on page 17](#)
- [“Pop-up Blocker Must Be Disabled to Run Remote Console on Firefox” on page 18](#)
- [“Remote Console and Virtual Devices on Solaris” on page 18](#)
- [“Remote Console Mouse Performance on Solaris” on page 18](#)

More information about the ELOM remote console system is available in the *Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and Sun Fire X2200 M2*

New ELOM Web GUI Available

The Tools and Drivers CD v1.5 includes a new easy-to-use ELOM web GUI with a “look and feel” that more closely matches other Sun products. The Tools and Drivers CD v1.5 is available at:

<http://www.sun.com/servers/entry/x2100/downloads.jsp>

More information about the new ELOM web GUI is available in the *Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and Sun Fire X2200 M2*

http://www.sun.com/products-n-solutions/hardware/docs/Servers/x64_servers/x2100m2/index.html

Minimum Supported Version for a Remote Sparc System

When running the web GUI from a Sparc-based system, the minimum supported Solaris OS is Solaris 10.

Solaris Remote Console Session Requires Java Plug-in

When you launch a Remote Console session on a Solaris system, the system will prompt you for a decision regarding the `javaRKVM.jnlp` file. You have the following two options:

- If you are logged in as root:
 - **Select the option to open this file using its default application.**

- If you are logged in as a user other than root, do the following:
 1. **Select the option to save the file.**

The `javaRKVM.jnlp` file is downloaded.
 2. **Run the file manually.**

The download manager will display the location of this file.
 3. **Move the `javaRKVM.jnlp` file to the `/tmp` directory.**

```
% mv /location_of_javaRKVM.JNLP/javaRKVM.JNLP /tmp
location_of_javaRKVM.JNLP
```

The directory where `javaRKVM.JNLP` resides.
 4. **To find the location of the `javaws` application, enter the following in a terminal window:**

```
% which javaws
```
 5. **Execute the following command from the terminal window:**

```
% /location_of_javaws/javaws /tmp/javaRKVM.JNLP
location_of_javaws
```

The directory where `javaws` resides.

Example:

Assume the `javaws` application is run from the `/usr/bin` directory:

```
% /usr/bin/javaws /tmp/javaRKVM.JNLP
```

This will open a Remote Console session. Once the remote console window is closed, the `/tmp/javaRKVM.jnlp` is removed.

Web GUI Supports Firefox Versions 1 and 2 on Windows

Web GUI 3.xx, which is available on the Tools and Drivers CD v1.5, supports Firefox versions 1 and 2 on Windows systems. Additionally, when using web GUI 3.xx, an ActiveX plugin is no longer a requirement for Firefox v1.x. Upgrade to web GUI 3.xx to use Firefox versions 1 or 2, or to continue running remote console, and using Firefox v1.x without upgrading to web GUI 3, install the ActiveX plugin by performing the following workaround:

- 1. Retrieve the latest ActiveX plugin (mozactivex-ff-15.xpi) at:**
<http://iol.ie/~locka/mozilla>
- 2. Open the Firefox 1.5 browser, and drag the mozactivex-ff-15.xpi file from its location to the open browser.**
OCX is installed automatically.
- 3. Open the file `C:\installation_path\defaults\perf\activex.js`**
The default path is `c:\programfiles\MozillaFireFox\defaults\perf\activex`
- 4. Change `pref("security.classID.allowByDefault", false)` to `pref("security.classID.allowByDefault", true)`**
- 5. Save the text file, and exit the text editor.**
- 6. Restart the browser.**
- 7. Go to Tools -> Options, and click on Content.**
- 8. On the Content page, make sure that Enable Java and Enable Java Script are selected.**

Disabling the Web GUI Timeout Function

It is best to disable the web GUI timeout function when performing remote installations. To disable the web GUI timeout function:

- 1. Login to the ELOM web GUI.**
- 2. Click the Control Tab.**
- 3. Set timeout to disabled.**

Pop-up Blocker Must Be Disabled to Run Remote Console on Firefox

If you have a pop-up blocker enabled in Firefox, and you try to run the remote console through the ELOM web GUI, the blocker may prevent the remote console from launching. If the remote console does not launch, check to see if the pop-up blocker has blocked it.

Remote Console and Virtual Devices on Solaris

If you are running Solaris on your remote console system, you must log into the operating system as root (superuser) to mount any virtual devices.

Remote Console Mouse Performance on Solaris

When running the remote console on the Solaris 10 operating system, the mouse performance might be slow. To fix this issue:

1. **Log in to the ELOM web GUI, and start the Remote Console.**
2. **Using the Remote Console window, run the following in a Solaris terminal window on the Sun Fire X2100 M2 system:**

```
type `xset m 1 1`
```

System Management Browser Issues

The following issues are contained in this section:

- “Minimum Supported Browsers” on page 19
- “Configuring Java Runtime Environment for Each Browser” on page 19
- “Error Message When Launching the Remote Console Using JRE 1.6.0” on page 20
- “Streaming Video and KVMs Over IP” on page 20

Minimum Supported Browsers

The following table shows the minimum versions that are supported for running the ELOM web GUI for the Sun Fire X2100 M2 server on Solaris and Linux operating systems.

TABLE 3 Version Numbers for Browsers

	Solaris X86	RHEL 32-bit	RHEL 64-bit	SLES 32-bit	SLES 64-bit	Windows
Mozilla	1.7	1.7.12	1.7.13	1.7.8	1.7.13	N/A
Firefox	1.5.0.4	1.0.7	1.5.0.4	1.5.0.4	1.5.0.4	1.5.0.4
Internet Explorer	N/A	N/A	N/A	N/A	N/A	6

Configuring Java Runtime Environment for Each Browser

Java Runtime Environment (JRE) 5 Update 7 is the minimum supported version for the browsers to run the ELOM web GUI. Follow the steps below to download the JRE 5 Update 7 for Mozilla and Firefox browsers.

1. Go to <http://www.java.sun.com/>.
2. Click on the **Get Java Software** button.
3. Click **Download Now** in the new window that opens.

The web site will display the appropriate plug-in options for the operating system that you are running.

4. Click Download to download the appropriate plug-in.

Installation instructions and plug-in verification are also available on this site.

Error Message When Launching the Remote Console Using JRE 1.6.0

The error message, “Cannot Connect to Host” occurs when launching the remote console using JRE v1.6.0. This is a known bug. As a workaround for this issue you have two options:

- Use JRE v1.5_10
- Change the default to “Direct Connection” in JRE v1.6.0.

To change the default in JRE v1.6.0, follow these steps:

1. Launch the java control panel.

path to jre jre1.6.0/bin/jcontrol

2. Select the General tab -> Network Settings, and click on “Direct Connection.”

3. Click OK.

Streaming Video and KVMS Over IP

The keyboard, video, mouse and storage (KVMS) over IP feature of the ELOM SP is designed for administering your system. Applications requiring heavy video bandwidth (for example, watching videos) will not perform well with KVMS over IP.

Diagnostics Issues

The following issues in this section apply to the Pc-Check diagnostics software, v6.05d:

- [“Limited Connectivity to Service Processor When Running Nic2 Tests” on page 21](#)
- [“Pc-Check Fails to Identify RAID Devices” on page 21](#)
- [“Pc-Check Will Hang When Running Keyboard LED Test” on page 21](#)

Limited Connectivity to Service Processor When Running Nic2 Tests

When running the Pc-Check Network Test, access to the service processor shared network port might become sluggish or stop.

Pc-Check Fails to Identify RAID Devices

After creating a RAID 1 device in the BIOS, the Pc-Check diagnostics software fails to identify the device as a RAID device.

Pc-Check Will Hang When Running Keyboard LED Test

The text for the keyboard LED test is not included in the diagnostics scripts. You can only run the test manually. This issue is under investigation.

Workaround: Do not run the test.

Operating Systems Issues

This section contains the following operating systems-related issues:

- [“Solaris Issues” on page 21](#)
- [“Linux Issues” on page 23](#)

Solaris Issues

This section contains issues that apply to Sun Fire X2100 M2 servers running the Solaris 10 operating system.

Issues contained in this section:

- [“Baud Rates for Installing the Solaris OS Using `ssh console`” on page 22](#)
- [“Patch Available for Solaris nge Connect Issues” on page 22](#)
- [“Telnet Security Vulnerability” on page 22](#)

- [“Solaris Xserver and NIC Interfaces” on page 22](#)
- [“Some KVM Switches Out-of-Sync Following Solaris Installation” on page 22](#)

Baud Rates for Installing the Solaris OS Using `ssh console`

To install the Solaris OS on ttyb using `ssh console`, use the web GUI to set the internal serial port baud rate to 9600. In the BIOS, set the COM2 baud rate to 9600. To be able to set the internal serial port baud rate, you must have updated your server to BIOS v3A16 and BMC v3.09.

Patch Available for Solaris nge Connect Issues

During initialization, Solaris might fail to properly clear the RX_EN register. As a result, TCP/UDP connections via the nge ports will fail. Patch 122530-06, which requires patch 118855-03, will resolve this issue. Reconfigure the system immediately after installing the patches. Both patches are available at <http://www.sun.com/sunsolve>. Use Patchfinder to locate the patch.

Telnet Security Vulnerability

The Solaris 10 6/06 and 11/06 OS distributions have a telnet security vulnerability issue. A patch is available on the Tools and Drivers CD v1.4, see [“Solaris 10 Telnet Security Patch” on page 24](#).

Solaris Xserver and NIC Interfaces

In order to start the Solaris Xserver, you must connect all of the configured network interface cards (NIC) to the network. If a NIC is not configured, you do not need to connect it.

Some KVM Switches Out-of-Sync Following Solaris Installation

When installing Solaris 10 6/06 in a rack with a KVM switch, the monitor might go out of sync when the xserver starts to log into the OS.

Possible Workarounds:

- **Install Solaris in text mode, then do the following:**
 - a. **Run the `install.sh` script from the Tools and Drivers CD.**

b. Reboot the server.

Running `install.sh` resolves the issue, as it installs the updated AST2000 VGA driver. See the *Sun Fire X2100 M2 Server Operating System Installation Guide*, 819-6592, for additional instructions on running the `install.sh` script for Solaris.

● **Use KVMs over IP with the Embedded Lights Out Manager (ELOM) GUI.**

See the *Embedded Lights-Out Management Administration Guide*, 819-6588, for additional instructions on KVMs over IP.

● **Install Solaris in GUI mode, then do the following:**

a. Boot failsafe or kill the Xserver prior to starting.

b. Run the `install.sh` script on the Tools and Drivers CD.

See the *Sun Fire X2100 M2 Server Operating System Installation Guide*, 819-6592, for additional instructions on running the `install.sh` script for Solaris.

Linux Issues

The following issue applies to Sun Fire X2100 M2 servers running the supported Red Hat or SUSE operating systems.

Keystrokes Auto-Repeat

When typing characters on a Linux operating system running on the Sun Fire X2100 M2 server, the keystrokes will auto-repeat. You can use the following workaround or install an updated kernel from Red Hat, see RHSA-2006:0710-7 at:

<http://rhn.redhat.com/errata/RHSA-2006-0710.html>

Workaround:

1. **Select Preferences - > Keyboard from the desktop menu.**
2. **Uncheck the selection: keyboard repeats when key is held down.**

Issues Fixed With Previous Tools and Drivers CD Updates

The following issues have been fixed with Tools and Drivers CD updates to the system BIOS and BMC. Issues listed as fixed are maintained with each release.

- “Issues Fixed with the Tools and Drivers CD v1.4” on page 24
- “Issues Fixed With Tools and Drivers CD v1.3” on page 26
- “Issues Fixed With the Tools and Drivers CD v1.2” on page 28
- “Issues Fixed With Tools and Drivers CD v1.1” on page 29

Issues Fixed with the Tools and Drivers CD v1.4

- “Solaris 10 Telnet Security Patch” on page 24
- “Nvidia Quadro Plex Support” on page 24
- “LSI Logic SAS3041E-R Card Support” on page 25
- “Non-Maskable Interrupt (NMI)” on page 25

Solaris 10 Telnet Security Patch

The Solaris 10 6/06 and 11/06 OS distributions have a security vulnerability in the `in.telnetd(1M)` daemon that might allow unauthorized remote users to gain access to a Solaris Host. Patch-ID# 120069-02 addresses this issue. The patch is available on the Sun Fire X2100 M2 Tools and Drivers ISO image 1.4.

Apply the patch manually or run the `install.sh` script on all Solaris 10 6/06 and 11/06 systems. For more information, refer to Sun Security Alert 102802. You can also access this patch (and related patches) at <http://www.sun.com/sunsolve/>.

Nvidia Quadro Plex Support

Support for Nvidia Quadro Plex is available via the Nvidia Quadro Plex Interface Card (QPIC) and the x16 PCIe card and riser assembly. A BIOS option is available to direct the video to either the onboard AST2000 or the Nvidia PCIe card. The video will default to the AST2000 until this BIOS option is changed. To change this option, do the following:

Caution – When changing the BIOS option to direct video to the PCIe card, all remote access to the system console is *temporarily* lost.

1. Enter the system BIOS by pressing F2 at the Sun splash screen.
2. Select Advanced tab -> Onboard Device Configuration -> Primary Graphics Adapter.
3. Change to PCI Express, and hit F10 to save changes.

LSI Logic SAS3041E-R Card Support

You can use a system BIOS option to set the write cache for the LSI card to Enable or Disable. By default the option is *Disable*. To change the default to Enable, follow these steps:



Caution – Enabling the write cache increases the risk of corrupting data when an unexpected power outage occurs. However, enabling the write cache will improve the install/rebuild performance.

1. Enter the system BIOS by pressing F2 at the Sun splash screen.
2. Select Advanced -> Onboard Device Configuration -> LSI 3041E disk cache.
3. Change to Enable, and press the F10 key to save changes.

Non-Maskable Interrupt (NMI)

Support for NMI has been added in the web GUI.

Issues Fixed With Tools and Drivers CD v1.3

If you encounter any of the following system issues, update your system firmware with the Tools and Drivers CD v1.3:

- “Security Risk: Remote Console Does Not Automatically Close” on page 26
- “Updated Embedded Lights Out Manager Functionality” on page 26
- “Remote Power Control Options” on page 26
- “Option to Preserve or Clear CMOS Settings During Update” on page 27
- “Firmware Update Options” on page 27
- “Web GUI Changes” on page 27

Security Risk: Remote Console Does Not Automatically Close

If you are running the web GUI on Windows with an Internet Explorer browser and the web GUI times out, or you log out with the remote console window still open, a dialog box will appear stating:

If remote console is opened, it will be closed. Click OK.

Clicking OK will *not* close the remote console window. You will need to close the window manually.

Updated Embedded Lights Out Manager Functionality

The Embedded Lights Out Manager (ELOM) service processor (SP) functionality has been updated with the Tools and Drivers v1.3 CD. For more information about updating and managing the ELOM SP, refer to *Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and Sun Fire X2200 M2*.

Remote Power Control Options

The remote power control options in the ELOM have changed.

- If you are using CLI, the options for the `PowerCtrl` property for the following command have changed: `/SP/SystemInfo/CtrlInfo`
The new options for `PowerCtrl` are:
 - To shut down the system gracefully, use: **PowerCtrl=gracefuloff**
 - To force a system shut down, use: **PowerCtrl=forceoff**
- If you are using the Remote Console web GUI, the following four options now exist in the Control -> Power Control menu:

- To force a system shut down use: **Force Power Off**
- To reset the system use: **Reset**
- To shut down the system gracefully, use: **Graceful Shutdown**
- To set up BIOS boot options, use: Boot Option: **BIOS Setup**

Option to Preserve or Clear CMOS Settings During Update

The Tools and Drivers v1.3 CD implements functionality during the update process that provides the option to either *preserve* or *clear* the CMOS. The default is set to Clear CMOS. This avoids BIOS checksum errors, and facilitates remote updates. The option to preserve CMOS settings has no use when updating from v1.3 to v1.4, because the CMOS layout has changed.

Firmware Update Options

The firmware update options in the ELOM have changed. Included in the Tools and Drivers CD v1.3, there are two methods for updating the firmware remotely.

- [“Web GUI Changes” on page 27](#)
- [“CLI Changes” on page 28](#)

Web GUI Changes

Changes in the web GUI include two additional options in the Control → Firmware Update screen. Both methods described below preserve the SP settings. The options are:

- Method A: Updating firmware clears the system BIOS CMOS data and loads optimized defaults. Method A is recommended for users that would like no manual interaction following the update. However, the downside of this method is that any customized BIOS settings are lost, and user interaction is required to restore these settings. Some examples of customized settings are:
 - OS set to Windows
 - NVRAID configured
 - Customized settings for performance
- Method B: Update firmware preserving the system BIOS data.

Method B is recommended for users that would like the firmware to preserve the user’s customized BIOS settings.

CLI Changes

There is a new option to use before updating the BIOS CMOS: **UpdateMethod**

To clear the system BIOS CMOS and load optimized defaults, use:

```
set UpdateMethod=ClearCMOS
```

To update the firmware and preserve the system BIOS date, use:

```
set UpdateMethod=PreserveCMOS
```

Refer to the *Embedded Lights Out Manager Administration Guide for the Sun Fire X2100 M2 and Sun Fire X2200 M2* for more information about updating the firmware using the web GUI and the CLI.

Issues Fixed With the Tools and Drivers CD v1.2

If you encounter any of the following system issues, update your system firmware with the Tools and Drivers CD v1.2 to fix the issues:

Multiple Devices Cannot be Mounted Within the Web GUI on Solaris

When running either Mozilla or Firefox on a Solaris operating system, you can only mount one device at a time.

This issue is under investigation.

Issues Fixed With Tools and Drivers CD v1.1

If you encounter any of the following system issues, update your system firmware with the Tools and Drivers CD v1.1 to fix the issues:

- “Power Control Enhancement” on page 29
- “Emulex HBA Errors” on page 30
- “Network Boot Moves to the Top of the Boot Order After Unmounting the Virtual CD-ROM” on page 30
- “Virtual Storage Device Is Not Readable” on page 30
- “Sometimes a Virtual Device Does Not Mount After Unmounting on Mozilla or Firefox on Solaris” on page 30
- “Remote Console Screen Appears White or Gray” on page 30
- “Web GUI Remote Console Might Close Out on Solaris and Linux Operating Systems” on page 30
- “The Hostname Mismatch Dialog Box Is Hidden After Logging Into the Web GUI” on page 31
- “SP Connectivity Might Be Lost During a Remote Installation of Solaris Using the Virtual CD-ROM” on page 31
- “System Time with SP CLI Commands” on page 31

Power Control Enhancement

With the Tools and Drivers CD v1.1, there is an updated power control enhancement in the Embedded Lights Out Manager (ELOM) web GUI and CLI functionality that allows remote users to reboot the system and have it enter the system BIOS automatically.

- **If you are using the ELOM web GUI:**
 - a. **Click the Power Control tab.**
 - b. **Select Boot Option: BIOS Setup.**
 - c. **Click the Submit tab.**
- **If you are using the ELOM CLI, use the following commands:**

```
/SP/SystemInfo/CtrlInfo
Set BootCtrl=BIOSSetup
```

Emulex HBA Errors

Bus uncorrectable errors will appear in SEL log with the Emulex host bus adapter (HBA). Testing has found no functional issues.

Network Boot Moves to the Top of the Boot Order After Unmounting the Virtual CD-ROM

After unmounting the virtual CD-ROM, Network will move to the top of the boot order replacing the CD-ROM, if one is present.

Workaround: Enter the BIOS, and change the boot order.

Virtual Storage Device Is Not Readable

When you are using the web GUI with Mozilla or Firefox on a Solaris operating system, the virtual storage device is not readable in some instances.

Workaround: Restart the browser.

Sometimes a Virtual Device Does Not Mount After Unmounting on Mozilla or Firefox on Solaris

In some instances, the virtual device will not remount after it has been unmounted.

Workaround: Reboot the system that is running the remote console.

Remote Console Screen Appears White or Gray

- In some instances, after launching the Remote Console on a Solaris 10 or Windows system, the console window will change to white.
- After performing a remote firmware update, the Sun Fire X2100 server will reboot to flash the system BIOS. During the reboot, the Remote Console windows will appear gray with no text on a non-Windows system.

Web GUI Remote Console Might Close Out on Solaris and Linux Operating Systems

In some instances, the web GUI will suddenly disappear.

The Hostname Mismatch Dialog Box Is Hidden After Logging Into the Web GUI

When logging into the web GUI, the Hostname Mismatch dialog box is displayed for a few seconds, and then it moves behind the web browser window. If Run is not clicked in the Hostname Mismatch dialog box, the web GUI will not react to any mouse clicks until the other dialog box is closed.

Workaround: Minimize the web browser windows, and click Run on the Hostname Mismatch dialog box.

SP Connectivity Might Be Lost During a Remote Installation of Solaris Using the Virtual CD-ROM

This issue only happens on a small number of remote installations. If the connectivity is lost, a new installation is required.

System Time with SP CLI Commands

You will not be able to see the system time when using CLI commands with the ELOM SP. You will need to use the ELOM web GUI to view the system time.

