



# Sun Fire™ X4100 and Sun Fire X4200 Servers Release Notes For Software Release 1.2.1

---

Sun Microsystems, Inc.  
www.sun.com

Part No. 819-4344-12  
October 2006, Revision A

Submit comments about this document at: <http://www.sun.com/hwdocs/feedback>

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at <http://www.sun.com/patents> and one or more additional patents or pending patent applications in the U.S. and in other countries.

This document and the product to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of the product or of this document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any.

Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, Java, AnswerBook2, docs.sun.com, Sun Fire, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and in other countries.

All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and in other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

AMD Opteron is a trademark or registered trademark of Advanced Microdevices, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

U.S. Government Rights—Commercial use. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

---

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, Californie 95054, Etats-Unis. Tous droits réservés.

Sun Microsystems, Inc. a les droits de propriété intellectuelle relatants à la technologie qui est décrit dans ce document. En particulier, et sans la limitation, ces droits de propriété intellectuelle peuvent inclure un ou plus des brevets américains énumérés à <http://www.sun.com/patents> et un ou les brevets plus supplémentaires ou les applications de brevet en attente dans les Etats-Unis et dans les autres pays.

Ce produit ou document est protégé par un copyright et distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a.

Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, Java, AnswerBook2, docs.sun.com, Sun Fire, et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays.

Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

AMD Opteron est une marque de fabrique ou une marque déposée de Advanced Microdevices, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui en outre se conforment aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ÉTAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFAÇON.



Adobe PostScript

# Contents

---

## **Flash Upgrading Your Server to Release 1.2.1 1**

How to Flash Upgrade Your Server to  
Release 1.2.1 2

Summary of ILOM SP/BIOS Flash Upgrade Steps 3

How to Determine The Firmware Version of Your Server 6

Determining the Firmware Version Using the CLI Through the Management  
Ethernet Port 6

Determining the Firmware Version Using the CLI Through the Serial Port 7

Determining the Firmware Version Using the Web GUI 8

Running the Pre-Flash Script 9

Summary Pre-Flash Script Procedure 9

Detailed Pre-Flash Script Procedures 10

Determining Whether the Pre-Flash Script Has Been Applied 20

Locating ILOM Service Processor Addresses 21

How to Reset the SP 21

Special Considerations Regarding the ILOM Firmware Release 1.0.5a Update 22

LSI Firmware fw1.10.00-bios6.06.06A Is Required For Release 1.2.1 22

Wrong Firmware Version Number in Firmware (6466318) 22

Flash Upgrades From SP Build 6464 or 10644 Fail With Bad /conf Partition  
(6415975) 22

FRU Information Appears Empty After Updating the ILOM Firmware and the BIOS (6406138)	23
If Flash Upgrade to Release 1.2.1 Fails, No Error Messages Are Displayed (6449094)	23
New FRU Data Does Not Display Properly on Older SW Releases 1.0 and 1.1 (6475381)	25
Servers With SW 1.2.1 factory-Installed Do Not Display Correct FRU Data	25
Upgrades From SW 1.0 Must Upgrade to SW 1.1 Before Upgrading to SW 1.2 or Later (6476901)	26
Considerations When Starting the Update On Systems With ILOM Versions Earlier than 6464	26
Recovering From a Failed Flash Update	27
Upgrading LSI Firmware and BIOS	32
Component Versions By Release	32

# Preface

---

This document contains procedures and special information for upgrading your Sun Fire X4100 or Sun Fire X4200 server to the Release 1.2.1 software upgrade bundle.

---

## Related Documentation

For a description of the document set for the Sun Fire X4100 and Sun Fire X4200 servers, see the *Where To Find Documentation* sheet that is packed with your system and also posted at the product's documentation site. See the following URL, then navigate to your product.

<http://www.sun.com/documentation>

Translated versions of some of these documents are available at the web site described above in French, Simplified Chinese, Traditional Chinese, Korean, and Japanese. English documentation is revised more frequently and might be more up-to-date than the translated documentation.

For all Sun hardware documentation, see the following URL:

<http://www.sun.com/documentation>

For Solaris and other software documentation, see the following URL:

<http://docs.sun.com>

---

## Product Updates

For product updates that you can download for the Sun Fire X4100 or Sun Fire X4200 servers, please visit the following Web site:

<http://www.sun.com/servers/entry/x4100/downloads.jsp>

This site contains updates for firmware and drivers, as well as CD-ROM .iso images.

---

## Contacting Sun Technical Support

If you have technical questions about the Sun Fire X4100 or Sun Fire X4200 servers that are not answered in this document, go to:

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

See the Support menu for links to the Knowledgebase.

If you need to contact Sun technical support, please have the following information available so that we can best assist you in resolving problems:

- Description of the problem, including the situation where the problem occurs and its impact on your operation
- Machine type, operating system version, and product version, including any patches and other software that might be affecting the problem
- Detailed steps on the methods you have used to reproduce the problem
- Any error logs or core dumps

---

## Third-Party Web Sites

Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused by or in connection with the use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

---

## Sun Welcomes Your Comments

Sun is interested in improving its documentation and welcomes your comments and suggestions. Use the web-based form to provide feedback to Sun:

<http://www.sun.com/secure/products-n-solutions/hardware/docs/feedback/>

Please include the title and part number of your document with your feedback:

*Sun Fire X4100 and Sun Fire X4200 Servers Release Notes For Software Release 1.2.1*, part number 819-4344-12



# Flash Upgrading Your Server to Release 1.2.1

---

This chapter contains procedures and information for upgrading Sun Fire™ X4100 and Sun Fire X4200 servers to Release 1.2.1 from earlier releases. See the following sections:

- [“How to Flash Upgrade Your Server to Release 1.2.1” on page 2](#)
- [“How to Determine The Firmware Version of Your Server” on page 6](#)
- [“Running the Pre-Flash Script” on page 9](#)
- [“Special Considerations Regarding the ILOM Firmware Release 1.0.5a Update” on page 22](#)
- [“Recovering From a Failed Flash Update” on page 27](#)
- [“Upgrading LSI Firmware and BIOS” on page 32](#)
- [“Component Versions By Release” on page 32](#)

---

# How to Flash Upgrade Your Server to Release 1.2.1

The Integrated Lights Out Manager (ILOM) firmware (FW) and BIOS are tightly coupled and are always updated together. The Release 1.2.1 Upgrade software bundle contains new ILOM FW and BIOS upgrades, plus a number of optional enhancements to the software that was shipped with earlier releases:

- ILOM FW version 1.0.5a, which includes service processor (SP) build 12513 and BIOS 36. Enhancements include:

---

**Note** – You must have LSI firmware fw1.10.00-bios6.06.06A installed to use BIOS 36.

---

- New pre-flash assistant scripts for running the pre-flash script on large deployments of servers.
- Disabled DRAM power-down control mode.
- New Sun Fire X4100 and Sun Fire X4200 Diagnostics CD image, which includes SunVTS 6.2. Enhancements include:
  - The sd driver patch is replaced with scsa2usb patch for fast booting.
  - The AMDECCMON package is upgraded to 1.4 for DIMM location fix.
  - The SUNWhd package is upgraded from 1.0 to 1.01.
- New Sun Installation Assistant for Linux CD image 2.0.114, which adds support for the following operating systems:
  - Red Hat Enterprise Linux 3 Update 7 (32-bit)
  - Red Hat Enterprise Linux 3 Update 8 (32-bit)
  - Red Hat Enterprise Linux 4 Update 3 (32-bit)
- New Tools and Drivers CD 1.2 (17996e) image, which adds the following:
  - IPMItool 1.8.8 with new ipmiflash man page
  - Sun Fire X4100 and Sun Fire X4200 servers device drivers for Windows Server 2003

**The following section shows a summary of the steps you should perform to update your server to Release 1.2.1.**

# Summary of ILOM SP/BIOS Flash Upgrade Steps



---

**Caution** – If you are upgrading from SW 1.0 to SW 1.2.1, you must first upgrade to SW 1.1 or you might experience problems displaying FRUID information. The symptom of the problem is that product-specific FRU information (product part number, product serial number, chassis serial number) might display incorrectly, or as zeroes. For instructions on upgrading from SW 1.0 to SW 1.1, see the *Sun Fire X4100 and Sun Fire X4200 Server Release Notes For Software Release 1.1*, 819-5033.

---



---

**Caution** – Do not load (backflash) ILOM service processor and BIOS firmware older than SW 1.2 on Sun Fire X4100/X4200 servers. Hardware changes have been made on newer systems that require the newest ILOM and BIOS firmware to operate properly. The format of FRU data has also been extended, and is not displayed properly with older ILOM firmware.

---

1. Determine which version of the ILOM firmware that you currently have. See [“How to Determine The Firmware Version of Your Server”](#) on page 6.

Release Version	Firmware version	Firmware Build
Release 1.2.1	FW 1.0.5a See note below.	12513
Release 1.2	FW 1.0.5	12029
Release 1.1	FW 1.0.2	10664
Release 1.0	FW 1.0.0	6464

---

**Note** – See [“Wrong Firmware Version Number in Firmware \(6466318\)”](#) on page 22.

---

2. Download and run the `ilom.x4100-preflash_1.2.sh` (or later) pre-flash script file to prepare your server for the flash upgrade.

For detailed instructions, including automated procedures for running the pre-flash script on multiple servers, see [“Running the Pre-Flash Script”](#) on page 9. Download the file from this URL:

<http://www.sun.com/servers/entry/x4100/downloads.jsp>



---

**Caution** – Possible ILOM service processor damage: You must apply the pre-flash script to ILOM SPs that have firmware version `r10664.rom.ima` or earlier, to avoid possible corruption of the SP. The flash recovery process from this corruption is complicated, and might not succeed, requiring replacement of the SP hardware (see

“Recovering From a Failed Flash Update” on page 27 for details). The pre-flash script is only required for upgrading from ILOM SP version `r10664.com.ima` or earlier.

---

**Note** – If you ran the pre-flash script to upgrade from SW 1.0 to SW 1.1, you do not have to run the pre-flash script again to upgrade from SW 1.1 to SW 1.2.1.

---

3. Review the section “Special Considerations Regarding the ILOM Firmware Release 1.0.5a Update” on page 22 for known issues and considerations regarding the flash upgrade.
- 

**Note** – You must have LSI firmware `fw1.10.00-bios6.06.06A` installed to use the BIOS 36 that is in this software flash image.

---

4. Download the `ilom.X4100-1.0.5a.ima` flash image from the URL below:

<http://www.sun.com/servers/entry/x4100/downloads.jsp>

5. Use the ILOM GUI, the ILOM CLI `load` command, or N1 System Manager to perform the flash upgrade.

Because of the increased memory usage during web-based GUI operations, you might need to use N1 System Manager or the ILOM CLI `load` command to upgrade the ILOM firmware. See the N1 System Manager documentation or the *Integrated Lights-Out Manager Administration Guide*, 819-1160 for details of firmware flashing. For example:

From the ILOM CLI, use the following command

```
load -source tftp://<tftpserver>/<firmware.ima>
```

Online documentation for Sun N1 System Manager can be found at:

<http://docs.sun.com/coll/1283.2>

---



**Caution** – To ensure a successful flash upgrade, do *not* attempt to modify the ILOM configuration, or use other ILOM GUI, CLI, SNMP, or IPMI interfaces during the flash upgrade process. Wait until after the flash upgrade succeeds to make further ILOM configuration changes. Note that the ILOM upgrade procedure might reset the service processor if it detects recent ILOM configuration changes, or multiple ILOM users or connections.

---

---

**Note** – A firmware upgrade causes the server and ILOM to reset. An upgrade takes about 20 minutes to complete. ILOM will enter a special mode to load new firmware. No other tasks can be performed in ILOM until the firmware upgrade is complete and the ILOM is reset.

---

For full instructions on performing a flash upgrade, see the section, “How to Upgrade the ILOM Firmware” in the *Integrated Lights Out Manager (ILOM) Administration Guide*, 819-1160. You can find the document at this URL:

[http://www.sun.com/products-n-solutions/hardware/docs/Servers/x64\\_servers/x4100/index.html](http://www.sun.com/products-n-solutions/hardware/docs/Servers/x64_servers/x4100/index.html)

6. If you have any problems with the flash upgrade, refer to the section “[Recovering From a Failed Flash Update](#)” on page 27.

---

# How to Determine The Firmware Version of Your Server

There are three alternate procedures in this section that you can use:

- [“Determining the Firmware Version Using the CLI Through the Management Ethernet Port” on page 6](#)
- [“Determining the Firmware Version Using the CLI Through the Serial Port” on page 7](#)
- [“Determining the Firmware Version Using the Web GUI” on page 8](#)

## Determining the Firmware Version Using the CLI Through the Management Ethernet Port

1. **Connect an RJ-45 Ethernet cable to the NET MGT Ethernet port on the back panel.**
2. **Establish an SSH connection using the following command, then enter the default password (changeme) when you are prompted:**

```
# ssh -l root <SP IP address>
```

```
changeme
```

After you have successfully logged in, the SP displays its default command prompt:

```
->
```

3. **Type the `version` command, which will return output similar to the following:**

```
-> version
```

```
SP firmware version: 1.0
```

```
SP firmware build number: 10644
```

```
SP firmware date: Tue Sep 13 12:50:37 PDT 2006
```

```
SP filesystem version: 0.1.13
```

The ILOM firmware build version is the `build number` listed above.

# Determining the Firmware Version Using the CLI Through the Serial Port

1. **Configure your terminal device or the terminal emulation software running on a laptop or PC to the following settings:**
  - 8N1: eight data bits, no parity, one stop bit
  - 9600 baud
  - Disable hardware flow control (CTS/RTS)
  - Disable software flow control (XON/XOFF)

2. **Connect a serial cable from the RJ-45 SER MGT port on your server's back panel to your terminal device or PC.**

3. **Press Enter on the terminal device to establish a connection between that terminal device and the server's SP.**

The SP displays a login prompt.

```
SUNSP0003BA84D777 login:
```

In this example login prompt, *0003BA84D777* is the Ethernet MAC address of the SP. This will be different for each server.

4. **Log in to the ILOM SP and type the default user name (**root**) with the default password (**changeme**).**

After you have successfully logged in, the SP displays its default command prompt:

```
->
```

5. **Type the `version` command, which will return output similar to the following:**

```
-> version
```

```
SP firmware version: 1.0
```

```
SP firmware build number: 10644
```

```
SP firmware date: Tue Sep 13 12:50:37 PDT 2006
```

```
SP filesystem version: 0.1.13
```

The ILOM firmware build version is the `build number` listed above.

# Determining the Firmware Version Using the Web GUI

1. **Connect to the ILOM Web GUI by typing the IP address of the server's SP into your browser's URL field. For example:**

`https://129.146.53.150`

2. **Log in to the ILOM SP and type the default user name (**root**) with the default password (**changeme**).**

The first web page that is presented is the System Information -> Versions page, which includes the Build Number.

---

# Running the Pre-Flash Script

This section contains a summary of the pre-flash script process, followed by detailed instructions for supported operating system platforms.

- [“Summary Pre-Flash Script Procedure” on page 9](#)
- [“Detailed Pre-Flash Script Procedures” on page 10](#)
- [“Determining Whether the Pre-Flash Script Has Been Applied” on page 20](#)
- [“Locating ILOM Service Processor Addresses” on page 21](#)
- [“How to Reset the SP” on page 21](#)

## Summary Pre-Flash Script Procedure

This `ilom.X4100-preflash_1.2.sh` (or later) pre-flash upgrade script prepares Sun Fire X4100 and Sun Fire X4200 ILOM service processors (SPs) for safe upgrade from version `r10664.rom.ima` or earlier to the latest release. The pre-flash script is only required for upgrading from version `r10664.rom.ima` or earlier.

To use this script, copy the script to each ILOM SP using the secure copy command `scp(1)`, then execute the script using the secure remote shell command `ssh(1)`. Use the `sunservice` shell account, which has the same password as the `root` account on the ILOM SP.

See the sample commands below:

```
ssh -l sunservice <spip_address> rm -f /coredump/*
scp <pre-flash script name> sunservice@<spip_address>:/coredump
ssh -l sunservice <spip_address> sh /coredump/<pre-flash script name>
```



---

**Caution** – The ILOM SP includes the `sunservice` user account, which shares the same password as the `root` account. It is provided solely to allow Sun Services personnel to perform diagnosis and recovery tasks. Customer use of the `sunservice` account might interfere with the correct operation of the ILOM SP and is not supported unless it is used to perform procedures documented by Sun Microsystems.

---

The script displays one of the following two messages upon completion:

- `*** Success ***`

If this message is displayed, the ILOM SP can be safely upgraded, using any of the firmware upgrade methods (CLI, GUI, Sun N1 System Manager), with or without configuration preservation. Return to [Step 3](#) of [“Summary of ILOM SP/BIOS Flash Upgrade Steps”](#) on page 3.

- `*** Failure ***`

If this message is displayed, reset the SP, then apply the pre-flash script again (see [“How to Reset the SP”](#) on page 21).

## Detailed Pre-Flash Script Procedures

This section describes options for transferring the pre-flash script to the ILOM SP and running it on different OS platforms.

- [“Options For Linux and Solaris Platforms”](#) on page 11
- [“Options For Windows Platforms”](#) on page 16

## Options For Linux and Solaris Platforms

- [“Transferring and Running the Script Using SSH and SCP”](#) on page 11
- [“Transferring and Running the Script using TFTP”](#) on page 12
- [“Transferring and Running the Script Using NFS”](#) on page 13
- [“Automated Solaris and Linux Procedure For Running the Script Using Expect and Tcl/Tk Software”](#) on page 14

### *Transferring and Running the Script Using SSH and SCP*

This procedure can be done without logging in to the SP, by using the secure remote shell command `ssh(1)` and the secure copy command `scp(1)`.

Required Tools:

- `ssh`
- `scp`

1. **Download the pre-flash script and save it in a known directory.**

2. **Copy the script to the SP using the following commands:**

```
ssh sunservice@<sp ip address> rm -f /coredump/*
```

```
scp <pre-flash script name> sunservice@<sp ip address>:/coredump
```

3. **Run the script using the following command:**

```
ssh sunservice@<sp ip address> sh /coredump/<pre-flash script name>
```

4. **The script displays one of the following two messages upon completion.**

- `*** Success ***`

If this message is displayed, the ILOM SP can be safely upgraded, using any of the firmware upgrade methods (CLI, GUI, Sun N1 System Manager), with or without configuration preservation. Return to [Step 3 of “Summary of ILOM SP/BIOS Flash Upgrade Steps”](#) on page 3.

- `*** Failure ***`

If this message is displayed, reset the SP, then apply the pre-flash script again (see [“How to Reset the SP”](#) on page 21).

## *Transferring and Running the Script using TFTP*

Required Tools:

- Trivial file transfer protocol (TFTP) server

### 1. Set up a TFTP server or use an existing one.

Refer to your OS documentation for instructions on setting up a TFTP server.

### 2. Download and save the pre-flash script to your TFTP root directory.

### 3. Log in as the sunservice account.

Use sunservice as the user name and the root password for the password.

```
ssh sunservice@<sp ip address> rm -f /coredump/*
```

### 4. Transfer the pre-flash script to the SP using TFTP and the following commands:

```
cd /coredump
```

```
rm -f /coredump/*
```

```
tftp <tftp server IP address> -c get <pre-flash script name>
```

### 5. Run the pre-flash script:

```
sh /coredump/<pre-flash script name>
```

### 6. The script displays one of the following two messages upon completion.

- \*\*\* Success \*\*\*

If this message is displayed, the ILOM SP can be safely upgraded, using any of the firmware upgrade methods (CLI, GUI, Sun N1 System Manager), with or without configuration preservation. Return to [Step 3](#) of “[Summary of ILOM SP/BIOS Flash Upgrade Steps](#)” on page 3.

- \*\*\* Failure \*\*\*

If this message is displayed, reset the SP, then apply the pre-flash script again (see “[How to Reset the SP](#)” on page 21).

## *Transferring and Running the Script Using NFS*

Required tools:

- A network file system (NFS) directory

**1. Export an NFS directory if none is available.**

**2. Copy the pre-flash script to the exported NFS directory.**

**3. Log in to the SP as the sunservice account.**

Use `sunservice` as the user name and the root password for the password.

**4. Mount the NFS directory.**

```
mount <nfs server>:<nfs directory> /mnt
```

**5. Remove any current coredump files using the following commands:**

```
cd /coredump
```

```
rm -f /coredump/*
```

**6. Run the pre-flash script:**

```
cd /mnt
```

```
sh <pre-flash script name>
```

**7. The script displays one of the following two messages upon completion.**

- **\*\*\* Success \*\*\***

If this message is displayed, the ILOM SP can be safely upgraded, using any of the firmware upgrade methods (CLI, GUI, Sun N1 System Manager), with or without configuration preservation. Return to [Step 3](#) of “[Summary of ILOM SP/BIOS Flash Upgrade Steps](#)” on page 3.

- **\*\*\* Failure \*\*\***

If this message is displayed, reset the SP, then apply the pre-flash script again (see “[How to Reset the SP](#)” on page 21).

## Automated Solaris and Linux Procedure For Running the Script Using Expect and Tcl/Tk Software

Required tools:

- Tool Command Language (Tcl) and Tk (toolkit) programming language software
- Expect software application

### 1. Install Tcl/Tk and Expect software, if not already installed.

You can download Expect from:

<http://expect.nist.gov>

### 2. Download the pre-flash script and save it in the same directory in which you saved the Expect files.

### 3. Use the Start menu Run dialog and run `cmd.exe` to open a command shell.

### 4. Change directory to the directory where you saved the Expect files and the pre-flash script.

### 5. Download the `apply-preflash-1.3-unix.tcl` script from the URL below and save it in the same directory as the pre-flash and Expect files:

<http://www.sun.com/servers/entry/x4100/downloads.jsp>

### 6. Run the `apply-preflash-1.3-unix.tcl` file on the command shell with the following command and options:

```
expect apply-preflash-1.3-unix.tcl [options]
```

---

**Note** – To automate running the script on multiple SPs, put all the SP IP addresses into a file that can be read by the `apply-preflash-1.3-unix.tcl` script. List only one SP IP address per line. Then supply the file name to the script with the `-splist` option. See the table below for all script options.

---

Script Options	Explanation
<code>-sp &lt;ip address&gt;</code>	The IP address of the server's ILOM SP.
or	
<code>-splist &lt;file name&gt;</code>	The file that lists all the SPs to update, for automated multiple-server upgrades.
<code>-password &lt;password&gt;</code>	The root password if the default password is not used.
<code>-scriptname &lt;name&gt;</code>	The pre-flash script name, if the default is not used.
<code>-query</code>	Query whether the pre-flash script has already been run.

---

**7. The script displays one of the following two messages upon completion.**

■ **\*\*\* Success \*\*\***

If this message is displayed, the ILOM SP can be safely upgraded, using any of the firmware upgrade methods (CLI, GUI, Sun N1 System Manager), with or without configuration preservation. Return to [Step 3](#) of [“Summary of ILOM SP/BIOS Flash Upgrade Steps”](#) on page 3.

■ **\*\*\* Failure \*\*\***

If this message is displayed, reset the SP, then apply the pre-flash script again (see [“How to Reset the SP”](#) on page 21).

## Options For Windows Platforms

- “Transferring and Running the Script Using PuTTY” on page 16
- “Transferring and Running the Script using TFTP” on page 17
- “Automated Windows Procedure For Running the Script Using Expect and PuTTY Software” on page 18

### *Transferring and Running the Script Using PuTTY*

Required Tools:

- PuTTY software, including `plink.exe` (command line) and `pscp.exe`.

**1. Download PuTTY `plink.exe` and `pscp.exe` files and save them in a directory.**

You can download these files from:

<http://www.chiark.greenend.org.uk/~sgtatham/putty/>

**2. Download the pre-flash script and save it in the same directory in which you saved the PuTTY files.**

**3. Use the Start menu Run dialog and run `cmd.exe` to open a command shell.**

**4. Go to the directory where you saved the PuTTY files and the pre-flash script.**

**5. Copy the pre-flash script to the SP with the following PuTTY commands:**

```
plink sunservice@<sp ip address> "rm -f /coredump/*"
```

```
pscp <pre-flash script name> sunservice@<sp ip address>:/coredump
```

**6. Run the pre-flash script on the SP with the following PuTTY command:**

```
plink sunservice@<sp ip address> "sh /coredump/<pre-flash script name>"
```

**7. The script displays one of the following two messages upon completion.**

- **\*\*\* Success \*\*\***

If this message is displayed, the ILOM SP can be safely upgraded, using any of the firmware upgrade methods (CLI, GUI, Sun N1 System Manager), with or without configuration preservation. Return to [Step 3](#) of “[Summary of ILOM SP/BIOS Flash Upgrade Steps](#)” on page 3.

- **\*\*\* Failure \*\*\***

If this message is displayed, reset the SP, then apply the pre-flash script again (see “[How to Reset the SP](#)” on page 21).

## Transferring and Running the Script using TFTP

Required Tools:

- TFTP server software: `tftpd32.exe`

Optional Tools:

- PuTTY software, including `plink.exe` (command line)

### 1. Download the `tftpd32.exe` file and save it in a directory.

You can download this file from:

<http://tftpd32.jounin.net>

---

**Note** – This TFTP server does not require installation. The `tftpd32` software will make all the files in the directory it is launched from available for TFTP. It can be started and stopped as desired.

---

### 2. Download and save the pre-flash script into the same directory in which you saved `tftpd32.exe`.

### 3. Start `tftpd32.exe` by running it from a command shell, or use File Browser to start it.

### 4. Make note of the IP address of the TFTP server that `tftpd32` reports.

### 5. Log in to the SP as the `sunservice` account.

Use `sunservice` as the user name and the root password for the password.

### 6. Transfer and run the pre-flash script on the SP with following commands:

```
plink sunservice@<sp ip address> "rm -f /coredump/*"  
cd /coredump  
tftp <tftp server IP address> -c get <pre-flash script name>  
sh <pre-flash script name>
```

### 7. The script displays one of the following two messages upon completion.

- `*** Success ***`

If this message is displayed, the ILOM SP can be safely upgraded, using any of the firmware upgrade methods (CLI, GUI, Sun N1 System Manager), with or without configuration preservation. Return to [Step 3 of “Summary of ILOM SP/BIOS Flash Upgrade Steps” on page 3](#).

- `*** Failure ***.`

If this message is displayed, reset the SP, then apply the pre-flash script again (see [“How to Reset the SP” on page 21](#)).

## *Automated Windows Procedure For Running the Script Using Expect and PuTTY Software*

---

**Note** – This procedure and the sample automated script text are also included in the README file that is included with the pre-flash script.

---

Required tools:

- Tool Command Language (Tcl) and Tk (toolkit) programming language software
- Expect software application

**1. Install Tcl/Tk and Expect software, if not already installed.**

You can download Expect from:

<http://expect.nist.gov>

**2. Download the pre-flash script and save it in the same directory in which you saved the Expect files.**

**3. Use the Start menu Run dialog and run cmd.exe to open a command shell.**

**4. Change directory to the directory where you saved the Expect files and the pre-flash script.**

**5. Download the apply-preflash-1.3-windows.tcl script from the URL below and save it in the same directory as the pre-flash and Expect files:**

<http://www.sun.com/servers/entry/x4100/downloads.jsp>

**6. Run the apply-preflash-1.3-windows.tcl file on the command shell with the following command and options:**

```
expect apply-preflash-1.3-windows.tcl [options]
```

---

**Note** – To automate running the script on multiple SPs, put all the SP IP addresses into a file that can be read by the apply-preflash-1.3-unix.tcl script. List only one SP IP address per line. Then supply the file name to the script with the -splist option. See the table below for all script options.

---

Script Options	Explanation
-sp <ip address> or -splist <file name>	The IP address of the server's ILOM SP.  The file that lists all the SPs to update, for automated multiple-server upgrades.
-password <password>	The root password if the default password is not used.
-scriptname <name>	The pre-flash script name, if the default is not used.
-query	Query whether the pre-flash script has already been run.

## 7. The script displays one of the following two messages upon completion.

### ■ \*\*\* Success \*\*\*

If this message is displayed, the ILOM SP can be safely upgraded, using any of the firmware upgrade methods (CLI, GUI, Sun N1 System Manager), with or without configuration preservation. Return to [Step 3 of “Summary of ILOM SP/BIOS Flash Upgrade Steps” on page 3](#).

### ■ \*\*\* Failure \*\*\*

If this message is displayed, reset the SP, then apply the pre-flash script again (see [“How to Reset the SP” on page 21](#)).

# Determining Whether the Pre-Flash Script Has Been Applied

There are several methods you can use to determine whether the pre-flash script has been applied.

- The pre-flash script prints the following messages at the conclusion of a successful pre-flash process:

```
*** Patch installed ***
```

```
You may now upgrade your firmware
```

```
Please ensure you upgrade to the latest version available.
```

```
*** Success ***
```



---

**Caution** – If you are upgrading from SW 1.0 to SW 1.2.1, you must first upgrade to SW 1.1 or you might experience problems displaying FRUID information. The symptom of the problem is that product-specific FRU information (product part number, product serial number, chassis serial number) might display incorrectly, or as zeroes. For instructions on upgrading from SW 1.0 to SW 1.1, see the *Sun Fire X4100 and Sun Fire X4200 Server Release Notes For Software Release 1.1*, 819-5033.

---

- You can also use the following command to verify that the pre-flash script has been successfully applied.

```
ssh sunservice@<sp ip address> ls /var/patchit
```

If the text returned does *not* contain the following message, then the patch is applied and running.

```
No such file or directory
```

- The automated methods for applying the pre-flash script provide a `-query` option that you can use to determine whether the pre-flash script was applied. See [“Automated Solaris and Linux Procedure For Running the Script Using Expect and Tcl/Tk Software”](#) on page 14 and [“Automated Windows Procedure For Running the Script Using Expect and PuTTY Software”](#) on page 18.

# Locating ILOM Service Processor Addresses

There are several methods you can use to locate ILOM SPs and their IP addresses.

- Sun N1 System Manager. Sun N1 System Manager provides the capability to display the ILOM SP addresses of managed systems with the `n1sh` command. For example, the following command can be used to create a list of Sun Fire X4100 and Sun Fire X4200 servers:

```
n1sh show server | grep 'X4[12]00'
```

- DHCP server. See “ILOM Initial Setup” in the *Integrated Lights Out Manager Administration Guide* (819-1160) for instructions on how to determine the IP address of a single server.
- Linux and Solaris open-source `nmap` command. The open-source `nmap` command provides a `-p` port option to scan for port 623, which can be used to quickly detect IPMI-enabled devices on a network. For example:

```
nmap -p 623 10.6.154.1/24
```

## How to Reset the SP

To reset the ILOM SP, there are several methods you can use (for complete details, see the *Integrated Lights-Out Manager Administration Guide*, 819-1160):

- From the ILOM SP graphical web interface, navigate to the Maintenance tab, then use the Reset SP action.
- From the ILOM CLI, use the following command:

```
reset /SP
```

- Using IPMITool, use the following command:

```
ipmitool -U root -P <password> -H <sp_ipaddress> bmc reset cold
```
- You can also reset the ILOM SP by shutting down the host, then removing and restoring AC power cords to the system.

---

# Special Considerations Regarding the ILOM Firmware Release 1.0.5a Update

This section describes considerations that might affect the firmware upgrade.

## LSI Firmware fw1.10.00-bios6.06.06A Is Required For Release 1.2.1

If you have not already installed it in a prior software release, you must install LSI firmware version fw1.10.00-bios6.06.06A before flash upgrading to Release 1.2.1.

## Wrong Firmware Version Number in Firmware (6466318)

When you see the firmware version number displayed for this release it will say:

```
SP firmware version: 1.0.7
```

This is incorrect; it should say version 1.0.5a. The build number 12513, is correct.

## Flash Upgrades From SP Build 6464 or 10644 Fail With Bad /conf Partition (6415975)

These servers provide a combined ILOM service processor and BIOS firmware upgrade option. Flaws have been discovered in the ILOM upgrade feature, which may result in corruption of the ILOM service processor firmware and the motherboard SUN FRU ID record.

### *Workaround*

Run the supplied preflash script on the service processor before upgrading the ILOM firmware. For detailed instructions, see [“Running the Pre-Flash Script” on page 9](#).

## FRU Information Appears Empty After Updating the ILOM Firmware and the BIOS (6406138)

The host CPU and DIMM FRU information shown by the service processor is provided to the service processor during each BIOS power-on-self-test (POST). Therefore, after a BIOS/ILOM upgrade, this FRU information is empty until the first host BIOS POST.

### *Workaround*

This is expected behavior. Reset the server and allow it to complete POST during bootup to repopulate the FRU lists.

## If Flash Upgrade to Release 1.2.1 Fails, No Error Messages Are Displayed (6449094)

In the preparation phase of the flash upgrade process, if the SP is unable to ensure the flash upgrade process will succeed, the SP is reset to prevent damage. This SP reset might occur 30 to 90 seconds after entering the flash upgrade mode. However, no error message is displayed to inform the user that the SP has reset.

### *Workaround*

Although no error message is displayed, there are several methods you can use to determine that this SP reset has occurred:

- CLI method:

When flash upgrading using the CLI your prompt might reach the preserve configuration state before receiving a “connection closed” error, as shown in the example output below:

```
-> load -source tftp://hostname.domainname.com/tftpboot/<flash-image>
```

```
NOTE: A firmware upgrade will cause the server and ILOM to be reset. It is recommended that a clean shutdown of the server be done prior to the upgrade procedure. An upgrade takes about 20 minutes to complete. ILOM will enter a special mode to load new firmware. No other tasks can be performed in ILOM until the firmware upgrade is complete and ILOM is reset.
```

```
Are you sure you want to load the specified file (y/n)? y
```

```
File upload is complete.
```

```
Firmware image verification is complete.
```

Do you want to preserve the configuration (y/n)? Connection to 10.6.153.165 closed by remote host.

Once the SP has finished resetting and a login window is displayed, you can attempt the flash upgrade again.

■ Web GUI method:

When flash upgrading using the GUI interface, the user selects the “Maintenance” tab. Then under the subtab “Firmware Upgrade,” the user presses the “Enter Upgrade Mode” button. This selection initiates the SP to enter the flash mode, which might cause the SP to reset on error.

If an error occurs, it will take 30 seconds for the File Upload page to appear, at which point you might be allowed to browse and click the Upload button. If an error did occur, the file will never finish uploading. *Wait a minimum of 5 minutes* before reloading the page or performing any other actions.

To check whether the SP has already reset before this time, you can open a new browser window and attempt to log in to the SP.

- If an error page is displayed stating that the SP is already in flash mode, then the SP is still uploading the file and is operating correctly.
- If a login window is displayed, this means that the SP did reset.

You can also check the status of the SP by logging in using the serial port, or by attempting to login via SSH to the SP IP address.

Once the SP has finished resetting and a login window is displayed, you can attempt the flash upgrade again.

■ IPMIflash method:

If you use the IPMIflash command, the command will return an error message indicating that flash blocks could not be sent and that loading the image failed. See the example command output below.

```
-> ipmiflash write <SP IP address> -Uroot -Pchangeme <flash image> noconfig
*****
FIRMWARE UPGRADE MUST NOT BE INTERRUPTED ONCE IT IS STARTED
*****
During the upgrade process the system will be RESET. If it is not
currently powered off CANCEL now and power it off.
*****
Ctrl-C to Cancel in 5 4 3 2 1
*****
```

```
System power is OFF
The system will be held in RESET to flash the BIOS
*****
Preparing Flash Area..... done
Loading Flash Image..... OK
Error sending flash block: Flash Area Not Prepared
Loading Flash Image..... failed
```

Once the SP has finished resetting and a login window is displayed, you can attempt the flash upgrade again.

## New FRU Data Does Not Display Properly on Older SW Releases 1.0 and 1.1 (6475381)

Do not load (backflash) ILOM service processor and BIOS firmware older than the currently supported version in SW 1.2. Hardware changes have been made on newer systems that require newest ILOM and BIOS to operate properly. The format of FRU data has also been extended, and is not displayed properly with older ILOM firmware.

### *Workaround*

None, this is expected behavior.

## Servers With SW 1.2.1 factory-Installed Do Not Display Correct FRU Data

Servers that has SW 1.2.1 installed at the factory do not display correct FRUID information.

### *Workaround*

Contact your Sun Service representative to have the FRU information added manually.

# Upgrades From SW 1.0 Must Upgrade to SW 1.1 Before Upgrading to SW 1.2 or Later (6476901)

Customers who upgrade ILOM firmware from SW 1.0 to SW 1.2 or later, might experience problems displaying FRUID information. The symptom of the problem is that certain fields might display as zeroes. To avoid this problem, you must update from SW 1.0 to SW 1.1, before upgrading to SW 1.2 or later.

## *Workaround*

To upgrade from SW 1.0 to SW 1.2 and later, upgrade from SW 1.0 to SW 1.1 first, then upgrade from SW 1.1 to SW 1.2 or later. For instructions on upgrading from SW 1.0 to SW 1.1, see the *Sun Fire X4100 and Sun Fire X4200 Server Release Notes For Software Release 1.1*, 819-5033.

## Considerations When Starting the Update On Systems With ILOM Versions Earlier than 6464

If you were a Beta or Early Access customer, you might have a system with an ILOM version earlier than 6464.

---

**Note** – To determine the release of your server, see the procedures in [“How to Determine The Firmware Version of Your Server”](#) on page 6.

---

- If the release is earlier than 6169, you must return the Graphics Redirect and Service Processor (GRASP) board to the factory for reprogramming. See “BIOS Upgrades Fail When Upgrading SP Firmware Older Than Version 6169 (6324746)” in the *Sun Fire X4100 and Sun Fire X4200 Server Product Notes*, 819-1162.
- If the release is 6169, then upgrade your ILOM to the current version by doing the following steps:
  1. Upgrade to ILOM version 6464, the initial general release. See *Upgrading the ILOM SP Firmware From Version 6169 to 6464 Causes SP Configuration To Be Lost*” in the *Sun Fire X4100 and Sun Fire X4200 Server Product Notes*, 819-1162.
  2. Power cycle the server. (Unplug, then reconnect its AC power cords.)
  3. Upgrade to ILOM version 6464 again.
  4. Upgrade to ILOM version 10644. See [“How to Flash Upgrade Your Server to Release 1.2.1”](#) on page 2 for additional considerations.

---

# Recovering From a Failed Flash Update

This section contains instructions for recovering from a failed Sun Fire X4100 or Sun Fire X4200 ILOM firmware upgrade. Several issues have been identified with the firmware upgrade, which could result in a failed or incomplete firmware upgrade.

Use the following procedure to recover from a failed firmware upgrade. Note that in a small percentage of cases (such as when no output is displayed on the SP serial port), the Graphics Redirect and Service Processor (GRASP) board must be replaced.

## *Prerequisites:*

- A trivial file-transfer protocol (TFTP) server is required to reload the ILOM firmware.
- The host system must also remain powered off for the duration of the recovery process.

---

**Note** – Numbers printed below are in hexadecimal unless otherwise noted.

---

## *Recovery Steps:*

- 1. Determine if the ILOM SP first-level booter (referred to in this procedure as U-Boot) is intact. Follow documented procedures to connect to the SP serial port, apply power to the system, and observe the initial ILOM boot messages.**

See the *Sun Fire X4100 and Sun Fire X4200 Servers Installation Guide*, 819-1155 for details.

- If no screen output is displayed, stop here. The GRASP board must be replaced. Refer to the *Sun Fire X4100 and Sun Fire X4200 Servers Service Manual*, 819-1157 for instructions.
- If screen output is displayed, continue to the next step.

- 2. Enter the ILOM SP U-Boot command interpreter with `xyzzy`.**

When the message, `Booting linux in 2 seconds...` is displayed, during ILOM initial boot, type `xyzzy` to enter the U-Boot command interpreter.

---

**Note** – The characters typed will not echo. Cutting and pasting the characters improves the chance of success. You might need to try the process of applying power to the system and entering `xyzzy` several times.

---

### 3. Disable automatic reboot.

Set the U-Boot environment variable, `bootretry`, to `-1` to temporarily disable automatic reboot:

```
set bootretry -1
```

### 4. Configure the network for TFTP access.

a. Copy the ILOM SP firmware image to a TFTP server that is accessible on the same IP subnet as the ILOM SP network port.

b. Set the IP address for the ILOM SP and the TFTP server IP address by setting the `ethaddr` and `serverip` U-Boot variables.

```
set ipaddr n.n.n.n
set serverip n.n.n.n
```

### 5. Use the U-Boot `tftp` command to download the ILOM firmware image.

```
tftp 100000 <firmware image>
```

---

**Note** – If the TFTP server or filename is incorrect, you might need to enter `^C` to halt the `tftp` command, then repeat this recovery procedure.

---

Be sure that the complete flash image is actually downloaded successfully before proceeding. You should see a message similar to:

```
=> tftp 100000 r10644.rom.ima
Using FCC1 ETHERNET device
TFTP from server 10.6.154.8; our IP address is 10.6.154.99
Filename 'r10644.rom.ima'.
Load address: 0x100000

Loading:
#####
#####
#####
#####
#####
#####
done
Bytes transferred = 13107200 (c80000 hex)
```

### 6. Confirm that the download succeeded:

a. Confirm that the `tftp` command output ends with

`Bytes transferred = ByteCount`

b. Use the `md` command and confirm that its output displays strings from the beginning of the firmware image file. For example:

```
=> md 100000
```

```
00100000: 244d4f44 554c4524 01004000 00000200    $MODULE$..@.....
00100010: 00000000 000000f2 67726173 70000000    .....grasp...
00100020: 01000200 40000000 61000000 0000ffff    ....@...a.....
00100030: ffff0000 00000100 00000000 0000aa55    .....U
00100040: 46575f56 45525349 4f4e3d31 2e302e31    FW_VERSION=1.0.1
00100050: 0a46575f 44415445 3d4d6172 20203320    .FW_DATE=Mar  3
00100060: 32303036 0a46575f 4255494c 4454494d    2006.FW_BUILDTIM
00100070: 453d3130 3a35363a 30370a46 575f4445    E=10:56:07.FW_DE
00100080: 53433d57 41524e49 4e47203a 20554e4f    SC=WARNING : UNO
00100090: 46464943 49414c20 4255494c 44212120    FFICIAL BUILD!!
001000a0: 0affffff ffffffff ffffffff ffffffff    .....
```

## 7. Erase the existing ILOM flash image:



---

**Caution** – Interrupting the flash recovery process from this point onwards, or entering an incorrect U-Boot command, might result in a disabled service processor, which will require replacement. DO NOT stop or remove power from the system from this point onward.

---

a. Erase the exiting flash image with the `erase ff380000 ffffffff` command.

A series of dots will be displayed indicating the progress of the erase. For example:

```
=> erase ff380000 ffffffff
```

```
.....
.....Erased 200/200 sectors
```

b. If a failure occurs, retry the `erase` command repeatedly until it succeeds.

---

**Note** – If a persistent failure occurs, the service processor is not flash-upgradable, and must be replaced. Refer to the *Sun Fire X4100 and Sun Fire X4200 Servers Service Manual*, 819-1157, for details on replacing the GRASP board.

---

**8. Program the new ILOM firmware image:**

- a. Use the U-Boot `cp.b` command to copy the new ILOM firmware image from the download location at 100000 to ff380000, until end address ffffffff.**

For example:

```
=> cp.b 100000 ff380000 ffffffff
```

Copy to Flash

```
.....  
.....done
```

- b. Use the `fmh` command to verify the new ILOM firmware image.**

Before resetting, make sure the copy succeeded, using the `fmh` command, which should display firmware sections. For example:

```
=> fmh
```

Listing FMH Modules

Flash Size : 32768 KB

Erase Size : 64 KB

Sector Count : 512

FMH Located at 0xff380000 of Size 0x00020000

Name : grasp

Ver : 1.0

Type : 0x0002

Flags : 0x0000

Size : 0x00000061

Location: 0xff380040

LoadAddr: 0xffffffff

Checksum: Not Computed

-----

FMH Located at 0xff3a0000 of Size 0x00120000

Name : sysbios

Ver : 1.31

Type : 0x0000

Flags : 0x0100

Size : 0x00100000

Location: 0xff3c0000

```
LoadAddr: 0xffffffff
Checksum: Valid
-----

FMH Located at 0xff4c0000 of Size 0x000c0000
Name      : osimage
Ver       : 1.0
Type      : 0x0006
Flags     : 0x0119
Size      : 0x000ac9c8
Location: 0xff4c0040
LoadAddr: 0x00c00000
Checksum: Valid
...
```

---

**Note** – If the command output does not show anything, you may have entered an incorrect memory address. Repeat the `tftp`, `erase` and `cp.b` commands until the image is properly copied. Note that you must erase the existing firmware image before attempting to copy a new image.

---

#### 9. Reset the ILOM service processor.

Once you are certain that the service processor firmware image has been recovered, you can restart the service processor with the `reset` command.

=> **reset**

#### 10. Recover the system BIOS:

---

**Note** – This manual ILOM SP recovery process does *not* reflash the system BIOS. Repeat the firmware upgrade process, using the ILOM GUI or CLI procedures as described in [“How to Flash Upgrade Your Server to Release 1.2.1” on page 2](#) and the *Integrated Lights-Out Manager Administration Guide*, 819-1160.

---

Be sure to reset your service processor and BIOS configuration settings as needed, because they might be lost during this recovery.

---

# Upgrading LSI Firmware and BIOS

The Release 1.2.1 software bundle includes LSI controller FW 1.10.00 and BIOS 6.06.06A.

For information about the LSI FW and BIOS, see the documentation files that accompany the LSI download.

---

## Component Versions By Release

The service processor (SP) and BIOS software and the LSI firmware versions might be updated in each new release.

[TABLE 2](#) lists the component versions for Release 1.2.1 of the Sun Fire X4100 and Sun Fire X4200 servers.

**TABLE 1** Server Release 1.2.1 Component Versions

Component Name	Sun Fire X4100 Server Version	Sun Fire X4200 Server Version
ILOM FW 1.0.5a	SP build 12513	SP build 12513
BIOS	0ABGA036	0ABGA036
LSI Firmware	fw1.10.00-bios6.06.06A	fw1.10.00-bios6.06.06A
<b>NOTE:</b> You must have this version of the LSI firmware installed to use BIOS 36.		
Motherboard	501-7513 (RoHS compliant)	501-7514 (RoHS compliant)

[TABLE 2](#) lists the component versions for Release 1.2 of the Sun Fire X4100 and Sun Fire X4200 servers.

**TABLE 2** Server Release 1.2 Component Versions

<b>Component Name</b>	<b>Sun Fire X4100 Server Version</b>	<b>Sun Fire X4200 Server Version</b>
ILOM FW 1.0.5	SP build 12029	SP build 12029
BIOS	0ABGA034	0ABGA034
LSI Firmware	fw1.10.00-bios6.06.06A	fw1.10.00-bios6.06.06A
Motherboard	501-7513 (RoHS compliant)	501-7514 (RoHS compliant)

[TABLE 3](#) lists the component versions for Release 1.1 of the Sun Fire X4100 and Sun Fire X4200 servers.

**TABLE 3** Server Release 1.1 Component Versions

<b>Component Name</b>	<b>Sun Fire X4100 Server Version</b>	<b>Sun Fire X4200 Server Version</b>
ILOM FW 1.0.1	SP build 10644	SP build 10644
BIOS	0ABGA031	0ABGA031
LSI Firmware	fw1.08.01-bios6.04.0A	fw1.08.01-bios6.04.0A
Motherboard	501-7261	501-6974

[TABLE 4](#) lists the component versions for the initial release (Release 1.0) of the Sun Fire X4100 and Sun Fire X4200 servers.

**TABLE 4** Server Release 1.0 Component Versions

<b>Component Name</b>	<b>Sun Fire X4100 Server Version</b>	<b>Sun Fire X4200 Server Version</b>
ILOM FW 1.0	SP build 6464	SP build 6464
BIOS	0ABGA022	0ABGA022
LSI Firmware	fw1.04.00-bios6.02.0A	fw1.04.00-bios6.02.0A
Motherboard	501-7261	501-6974



# Index

---

## **C**

considerations for this release, 22

## **D**

driver updates, vi

## **F**

failed flash update, recovering, 27

firmware updates, vi

firmware version, determining, 6

flash upgrade summary, 3

## **K**

Knowledgebase, link to, vi

## **L**

LSI firmware and BIOS, upgrading, 32

## **P**

pre-flash assistant script for Solaris and Linux, 14

pre-flash assistant script for Windows, 18

pre-flash script

    automated procedure for Solaris and Linux, 14

    automated procedure for Windows, 18

    determining whether applied, 20

    options for Linux and Solaris, 11

    options for Windows, 16

    summary, 9

product updates, vi

## **R**

recovering from failed flash update, 27

resetting the SP, 21

## **S**

SP, resetting, 21

special considerations, 22

summary flash upgrade procedure, 3

Sun technical support, link to, vi

## **T**

technical support, link to, vi

## **U**

upgrade software bundle, 2

