Sun Fire™ V20z and Sun Fire V40z Servers—SP and BIOS Update ReadMe

BIOS v1.32.7.2 (V20z server)
BIOS v2.32.8.2 (V40z server)
SP v2.2.0.20
NSV 2.2.0.6i

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Contents

Preface

This document describes the new features, known issues, and update process for the SP and BIOS for the Sun Fire™ V20z and Sun Fire V40z servers.

Using UNIX Commands

This document does not contain information about basic UNIX® commands and procedures such as shutting down the system, booting the system and configuring devices. See the following documents for this information:

- Software documentation that you received with your system
- Solaris™ operating environment documentation, which is located at:

  http://docs.sun.com

Shell Prompts

Shell	Prompt
C shell	*machine-name*%
C shell superuser	*machine-name*#
Bourne shell and Korn shell	$
Bourne shell and Korn shell superuser	#

Typographic Conventions

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

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

Related Documentation

For the most up-to-date documentation, go to this site:

http://www.sun.com/products-n-solutions/hardware/docs/Servers/Workgroup_Servers/Sun_Fire_V20z/index.html

Translated versions of some of the documentation are available in French, Simplified and Traditional Chinese, Japanese, and Korean

Application	Title	Part Number
Safety information	*Important Safety Information for Sun Hardware Systems*	816-7190-xx
Safety notices and international compliance certification statements	*Sun Fire V20z and Sun Fire V40z Servers—Safety and Compliance Guide*	817-5251-xx
Hardware and system software installation	*Sun Fire V20z and Sun Fire V40z Servers— Installation Guide*	817-5246-xx
Server maintenance	*Sun Fire V20z and Sun Fire V40z Servers— User Guide*	817-5248-xx

Application	Title	Part Number
Server management	*Sun Fire V20z and Sun Fire V40z Servers— Server Management Guide*	817-5249-xx
Operating-system installation	*Sun Fire V20z and Sun Fire V40z Servers—Linux Operating System Installation Guide*	817-5250-xx
Troubleshooting and diagnostics	*Sun Fire V20z and Sun Fire V40z Servers— Troubleshooting Techniques and Diagnositcs Guide*	817-7184-xx
Late-breaking information	*Sun Fire V20z and Sun Fire V40z Servers Release Notes*	817-1771-xx

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Sun Fire V20z and Sun Fire V40z Servers—SP and BIOS Update ReadMe, part number 819-2714-12

Contacting Sun Technical Support

If you have technical questions about this product that are not answered in this document, go to:

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Updating the BIOS and SP Firmware

This document describes the updates and installation details for the current BIOS and Service Processor (SP) releases for the Sun Fire™ V20z and Sun Fire V40z servers.

This document contains the following sections:

New Features and Fixes

This sections lists the features and fixes at major NSV versions.

Features and Fixes at NSV 2.2.0.6i

The following is a partial list of the features and fixes contained in BIOS v1.32.7.2 (Sun Fire V20z server) and v2.32.8.2 (Sun Fire V40z server), as well as the Service Processor (SP) firmware v2.2.0.20.

- Because of a dietemp reporting error, upgrade to SP 2.0.2.20 is recommended. See "Upgrade to SP 2.2.0.20 (NSV 2.2.0.6i) Recommended for Sun Fire V20z and Sun Fire V40z Servers Because of Dietemp Reporting Error" on page 2.

Features and Fixes at NSV 2.2.0.6h

The following is a partial list of the features and fixes contained in BIOS v1.32.7.2 (Sun Fire V20z server) and v2.32.8.2 (Sun Fire V40z server), as well as the Service Processor (SP) firmware v2.2.0.18.

- A work-around has been implemented for AMD Errata #56.
- Support has been added for the AMD Opteron single-core CPU at stepping version E4.
- Support has been added for DDR 400 memory DIMMs on appropriate hardware configurations (only on Sun Fire V20z server with chassis part number (PN) 380-1194 and Sun Fire V40z server with chassis PN 380-1206.
- In-band monitoring over the Simple Network Management Protocol (SNMP) has been added. The default SP configuration supports both out-of-band (OOB) and in-band (IB) proxy capabilities.
- Support has been added for a new Bootable Diagnostics CD-ROM with this NSV.

Known Issues

The following known issues are listed below:

Upgrade to SP 2.2.0.20 (NSV 2.2.0.6i) Recommended for Sun Fire V20z and Sun Fire V40z Servers Because of Dietemp Reporting Error

Sun Fire V20z and Sun Fire V40z servers have shown errors in dietemp reporting in the range of -200 to 400 mil. These errors affect the sensor `get` command and might cause fans to adjust speed incorrectly. A thermal trip protects the processors so that the system shuts down gracefully.

Upgrade to SP 2.2.0.20 if you have SP 2.2.0.18 or earlier and have one of the following:

- A CPU customer replaceable unit (CRU)

- A daughter card with CPU
- A Super Field Replaceable Unit (FRU) chassis that was not upgraded before installation

Workaround

1. **Download NSV 2.2.0.6i from this web site. The files for *both* the Sun Fire V20z and the Sun Fire V40z can be found at the following URL:**

   http://www.sun.com/servers/entry/v20z/downloads.html

2. **Upgrade the server to SP 2.2.0.20.**

Version of SP 2.2.0.18 Is Incorrectly Referenced as SP 2.2.0.13 in the BOM

The Bill of Materials (BOM) incorrectly referenced SP 2.2.0.18 as 2.2.0.13.

Systems With Neterion (S2IO) 10 Gb Ethernet NIC (6282053)

A bug in BIOS 1.32.7.2 might cause a system, which has the Neterion (S2IO) 10 Gb Ethernet NIC, to hang when booting.

Workaround

The fix will be available in the next major release of the NSV.

BIOS Fails to Update

In systems where the PRS gets corrupted, the BIOS fails to update. If the BIOS updates successfully, you see the following messages:

```
This command may take several minutes.  Please be patient.
Bios started
Bios Flash Transmit Started
Bios Flash Transmit Complete
```

```
Bios Flash update Progress: 7
Bios Flash update Progress: 6
Bios Flash update Progress: 5
Bios Flash update Progress: 4
Bios Flash update Progress: 3
Bios Flash update Progress: 2
Bios Flash update Progress: 1
Bios Flash update complete
```

If you do not see this entire message, try updating the BIOS again.

Operator Panel and PPCBoot Do Not Need to Be Updated

Customers with Operator Panel V1.0.1.1 and PPCBoot V2.1.0.16 do not need to update their versions to match what is shipped in the current NSV. Because these versions work correctly, no tools are shipped to update them to more current versions. Customers with versions older than the ones listed above should update the SP version.

Overview of the Update Procedure

To update the BIOS and SP firmware, you must perform the following tasks in this order.

1. **Check the system inventory to verify your current version of the BIOS and SP firmware components.**

2. **Download the NSV files.**

3. **Share the NSV files with the appropriate permissions.**

4. **From a Solaris or Linux-based client:**

   a. **Update the SP firmware.**

   b. **Update the BIOS.**

5. **Reboot the server.**

6. **Perform housecleaning tasks.**

Preparing the Server

Before You Start

Before you start performing the update:

- Ensure that you do not have a firewall or VPN client enabled on your local machine. These applications block file sharing, and prevent the SP from mounting the share and accessing the NSV files.
- Check that Java runtime environment version 1.4.2 or higher is installed on your local machine. If necessary, you can download the most recent version from http://www.java.com.
- Ensure that you have an SSH client properly installed on your local machine.

Power On the Service Processor

The SP needs to be running; however, the platform side of the Sun Fire V20z or Sun Fire V40z server must be powered off.

Sun Fire V20z Server

Plug in the AC power cord on the back of the chassis and turn on the AC power switch on the back panel. The front LCD display must be lit (SP is on) but the green power LED must be off (platform is off).

Sun Fire V40z Server

Plug in the AC power cords to the power supplies on the back of the chassis. The front LCD display must be lit (SP is on) but the green power LED must be off (platform is off).

Configure Service Processor Network Settings

As the SP boots and comes up, its network settings need to be configured.

- If a DHCP server is available on the network to which the SP is connected, simply press the Select (center) button on the LCD panel to confirm the use of DHCP. The SP will request an IP address from the DHCP server; 5 to 10 seconds later, an IP address will display on the LCD panel.

  If you do not press the button before the system times out, the system automatically looks for a DHCP server.

- If no DHCP service is available on the SP network, use the arrow buttons to manually enter the network-information settings: IP address, netmask and default gateway or router.

  For more information, refer to the *Sun Fire V20z and Sun Fire V40z Servers—Installation Guide* (817-5246).

Reset the Service Processor

Note – If the SP is already configured with a login name and password, but you do not have the login information, you will need to reset the SP.

If you know the login information for the SP, you can skip to "Connect Your Local Client" on page 7.

To reset the SP:

1. **Press any of the three operator-panel buttons next to the front-panel LCD screen.**

   The LCD displays the option Server Menu.

2. **Press the Forward (right) button until the option "SP menu" is displayed.**

3. **Press the Select (center) button to confirm.**

4. **Press the Forward button until the option "Use Defaults" is displayed.**

5. **Press the Select button twice to confirm.**

   The SP resets itself to the factory settings and reboots.

   - If a DHCP server is available on the network to which the SP is connected, simply press the Select button on the LCD panel to confirm the use of DHCP.

   - If no DHCP service is available on the SP network, use the arrow buttons to manually enter the network-information settings: IP address, netmask and default gateway or router.

Connect Your Local Client

Ensure that the local client used to perform the update is connected to the management network (the same local area network [LAN] as one of the SP 10/100 Ethernet management ports).

If you are not sure, try to ping the SP IP address from your local client. If the command is successful, your local client is on the same LAN as the SP port.

Note – It is not recommended to update a server over a WAN.

Configure the Manager User and Password for the Service Processor

To configure the manager user and password, do the following:

1. **Connect to the SP with the** ssh **client using the IP address that appears on the LCD display on the front panel.**

2. **Log in with user name** *setup* **and no password.**

3. **When prompted, create the first manager-level user. For example, username** sun **and password** sun**.**

   The SSH session disconnects.

   The SP is now set up and ready to be used to perform the server update.

Verify BIOS and Firmware Versions

Ensure that you note down the current SP settings and firmware revisions.

Sun Fire V20z Server

The following steps explain how to verify the version of the BIOS and firmware currently installed on the Sun Fire V20z server.

Connect to the SP through SSH

1. **Open a terminal window.**

2. **Using** `ssh`**, connect to the SP IP address that appears on the LCD display on the front panel.**

3. **Log in with your SP user name and password.**

Note – If you have not yet set up an account on the SP or if you have forgotten your login information, refer to "Reset the Service Processor" on page 6.

Check the Software Inventory

● **Enter the following command:**

   `inventory get software`

   The command should return something similar to:

```
Name            Revision              Install Date   Description
Platform BIOS V01.32.7.2             Mon Apr 18 19:17:42 2005Platform BIOS for V20z
servers
- ID: 239


Operator PanelV1.0.1.2              Mon Apr 18 19:17:42 2005Operator Panel Firmware
SP Base       V2.2.0.20             Mon Apr 18 19:17:42 2005SP Base Software
```

   If one of the following is true:
   - The BIOS version is lower than V01.32.7.2.
   - The SP version is lower than 2.2.0.20.

   upgrade your system to a newer BIOS or SP version.

Sun Fire V40z Server

The following steps explain how to verify the version of the BIOS and firmware currently installed on the Sun Fire V40z server.

Connect to the SP through SSH

1. **Open a terminal window.**

2. **Using** `ssh`**, connect to the SP IP address that appears on the LCD display on the front panel.**

3. **Log in with your SP user name and password.**

Note – If you have not yet set up an account on the SP or if you have forgotten your login information, refer to .

Check the Software Inventory

● **Enter the following command:**

   inventory get software

   The command should return something similar to:

```
Name           Revision            Install Date   Description
Platform BIOSV02.32.8.2            Mon Apr 18 19:17:42 2005Platform BIOS for V40z
servers
- ID: 239


Operator PanelV1.0.1.2            Mon Apr 18 19:17:42 2005Operator Panel Firmware
SP Base     V2.2.0.20             Mon Apr 18 19:17:42 2005SP Base Software
```

If one of the following is true:

■ The BIOS version is lower than V02.32.8.2.
■ The SP version is lower than 2.2.0.20.

upgrade your system to a newer BIOS or SP version.

Performing the Server Update from a Solaris-based Client

Download and Share the NSV files

Open a Terminal Window

Ensure that your local Solaris machine is connected to the same local area network (LAN) as one of the SP ports.

● **Open a new terminal window on your local Solaris machine.**

Create a New Directory

This directory will serve as the central repository from which your Sun Fire V20z and Sun Fire V40z servers will download the new firmware during the update process.

● **On your local Solaris machine, create one of the following directories, depending on your type of server:**

mkdir /export/home/v20z

or

mkdir /export/home/v40z

You will download the update files to the directory that you create.

Download the NSV files

1. **Download the NSV update files to the directory that you created. The files for** *both* **the Sun Fire V20z and the Sun Fire V40z can be found at the following URL:**

   http://www.sun.com/servers/entry/v20z/downloads.html

2. **Under the section "Firmware and Utilities (NSV)", click on "Current Release".**

3. **Download the following NSV release-package files:**

Sun Fire V20z server

Download the following files into the directory `/export/home/v20z` on your local Solaris machine.

`nsv_V2_2_0_6.zip`

`nsv-v20z-bios-fw_V2_2_0_6i.zip`

Sun Fire V40z server

Download the following files into the directory `/export/home/v40z` on your local Solaris machine.

`nsv_V2_2_0_6.zip`

`nsv-v40z-bios-fw_V2_2_0_6i.zip`

Unzip the NSV package files

- **Unzip the NSV release-package files into the directory you created on your local Solaris machine.**

  Use the following command format:

  unzip *<filename>*

  If the unzipping process creates new zip archive files, unzip these new files as well.

Mount the NSV Share on the Service Processor

1. **At the shell prompt, enter one of the following commands, depending on your type of server:**

   share -F nfs -o ro /export/home/v20z

   or

   share -F nfs -o ro /export/home/v40z

2. **Enter the following command:**

   ifconfig -a

3. **Obtain the IP address by which your local Solaris machine connects to the network.**

4. **Enter the following command:**

   ssh -l **<*SP_username*>** **<*SP_IP*>**

   where *<SP_username>* is your user name for logging in to the SP; and

   where *<SP_IP>* represents the SP IP address that is displayed on the front-panel LCD display of the Sun Fire V20z or Sun Fire V40z server.

5. **At the** `ssh` **prompt, enter one of the following commands:**

   Sun Fire V20z server:

   sp add mount -r <*solaris-ip-address*>:/export/home/v20z -l /mnt

   Sun Fire V40z server:

   sp add mount -r <*solaris-ip-address*>:/export/home/v40z -l /mnt

---

   Note – If you receive an error message when you run the `mount` command for the Sun Fire V20z server, add the following line:
   `share -F nfs -o ro /export/home/v20z`
   to the file `/etc/dfs/dfstab` and reboot the server.

---

6. **At the** `ssh` **prompt, enter the following command:**

   sp get mounts

   The directory `/export/home/v20z` or `/export/home/v40z` should now be mounted.

Perform the SP Update

Ensure that the Platform is Powered Off

1. **To verify the power state of the platform side of the server, enter the following command:**

   platform get power state

   Note – If the platform is powered on, the green LED below the floppy diskette drive is illuminated.

---

2. **If the result returned is ON, then power off the platform side with the following command:**

   platform set power state off -f

Verify the Version of Java Runtime Environment

Ensure that Java runtime environment (JRE) 1.4 or higher is installed on your local Solaris machine. If your version of JRE is lower than 1.4, this update procedure will not work.

- **From a terminal window, type the following command:**

  `java -version`

  If Java is properly installed, you will see a result similar to the following:

  ```
  java version "1.4.2_06"
  Java(TM) 2 Runtime Environment, Standard Edition (build 1.4.2_06-b03)
  Java HotSpot(TM) Client VM (build 1.4.2_06-b03, mixed mode)
  ```

Update the SP Firmware

Step 1 - Launch the SP update utility on the Solaris machine

Enter one of the following commands in a terminal window on your local Solaris machine:

Sun Fire V20z server:

`java -jar /export/home/v20z/update_server/V2.2.0.6/updateServer.jar -f /export/home/v20z/sw_images/sp/spbase/V2.2.0.20/install.image -p 50000`

Sun Fire V40z server:

`java -jar /export/home/v40z/update_server/V2.2.0.6/updateServer.jar -f /export/home/v40z/sw_images/sp/spbase/V2.2.0.20/install.image -p 50000`

Note – Enter the command on one continuous line at the prompt.

The following message appears in the terminal window:

```
The SP update process will take several minutes to complete during
which the SP will be rebooted. You may now execute the "sp update
flash all" command on the SP to start the update...
```

Step 2 - Start the update process from the Service Processor

Return to the terminal window with the SSH connection to the SP.

- **Launch the update process with the following command:**

  sp update flash all -i <*ip_address_solaris_machine*> **-p 50000**

  The SP executes the command and reboots itself. The reboot process takes a few minutes.

  The SSH session automatically terminates.

  In the terminal window running the Java utility, the following messages appear as the SP reboots and updates itself:

  /10.6.164.10:(0)Received a ping request

  /10.6.164.10:(0)Replying to the ping request

  /10.6.164.10:(0)Waiting for an update request from a SP..this may take a few minutes

  /10.6.164.10:(0)Received an update request

  /10.6.164.10:(1)Sending an update accept message to the SP

  /10.6.164.10:(2)Sending a write request to the SP

  /10.6.164.10:(3)Transferring image file to the SP...this may take a few minutes

  /10.6.164.10:(4)Waiting for the file transfer status from the SP

  /10.6.164.10:(4)File transfer status: passed

  /10.6.164.10:(5)Waiting for image checksum status from the SP...this may take a few minutes

  /10.6.164.10:(5)Image checksum status: passed

  /10.6.164.10:(6)Waiting for SP boot status...this may take a few minutes

  /10.6.164.10:(6)Waiting for SP boot status...this may take a few minutes

  /10.6.164.10:(6)SP boot status: passed

  /10.6.164.10:(7)SP flash update complete

  Once the message "(7) SP flash update complete" appears, unless you need to update more servers, you can close the Java SP Update utility.

Perform the BIOS Update

Ensure that the Platform is Powered Off

1. **To verify the power state of the platform side of the server, enter the following command:**

```
platform get power state
```

> **Note –** If the platform is powered on, the green LED below the floppy diskette drive is illuminated.

2. **If the result returned is ON, then power off the platform side with the following command:**

```
platform set power state off -f
```

Update the BIOS

3. **At the SP prompt, enter one of the following commands, depending on your type of server:**

Sun Fire V20z server:

```
platform set os state update-bios
/mnt/sw_images/platform/firmware/bios/V1.32.7.2/bios.sp
```

Sun Fire V40z server:

```
platform set os state update-bios
/mnt/sw_images/platform/firmware/bios/V2.32.8.2/bios.sp
```

This update process might take several minutes before any output is returned. The output in your terminal window should look similar to the following:

```
This command may take several minutes.  Please be patient.

Bios started

Bios Flash Transmit Started

Bios Flash Transmit Complete

Bios Flash update Progress: 7

Bios Flash update Progress: 6

Bios Flash update Progress: 5

Bios Flash update Progress: 4

Bios Flash update Progress: 3

Bios Flash update Progress: 2

Bios Flash update Progress: 1

Bios Flash update complete
```

4. **Once the BIOS update is completed, the server automatically powers off.**

Verify the Updates

Power on the server again.

Once the server powers on, if the BIOS and SP firmware update operations were successful, a BIOS message is displayed on the console.

For the beginning section of this message, see "Console Output After Successful Update on a Sun Fire V20z Server" on page 25 or "Console Output After Successful Update on a Sun Fire V40z Server" on page 26.

Housecleaning Tasks

The update procedure is now complete.

Please note:

- If the local client from which you performed the update procedure will remain at this network location and act as a permanent NSV server, leave the directory mounted and shared.
- If the local client from which you performed the update procedure is at this network location temporarily (for example, if you used a laptop computer to update your server), we recommend that you unmount and unshare the directory.

Unmount the Directory

Unmount the directory that you mounted previously.

1. **Open a terminal window and connect to the SP through** ssh**.**

2. **From the SP, enter the following command to unmount the directory:**

   `sp delete mount`

3. **To verify that the directory has been unmounted, enter the following command:**

   `sp get mounts`

   You should not see the directory `/export/home/v20z` or `/export/home/v40z` (depending on your type of server).

Unshare the Directory

Now unshare the directory.

1. **At the shell prompt, enter one of the following commands, depending on your type of server:**

   unshare /export/home/v20z

   or

   unshare /export/home/v40z

Performing the Server Update from a Linux-based Client

Download and Share the NSV files

Open a Terminal Window

Ensure that your local Linux machine is connected to the same local area network (LAN) as one of the SP ports.

● **Open a new terminal window on your local Linux machine.**

Create a New Directory

This directory will serve as the central repository from which your Sun Fire V20z and Sun Fire V40z servers will download the new firmware during the update process.

● **On your local Linux machine, create one of the following directories, depending on your type of server:**

   mkdir /export/home/v20z

   or

   mkdir /export/home/v40z

   You will download the update files to the directory that you create.

Download the NSV files

1. **Download the NSV update files to the directory that you created. The files for** *both* **the Sun Fire V20z and the Sun Fire V40z can be found at the following URL:**

   http://www.sun.com/servers/entry/v20z/downloads.html

2. **Under the section "Firmware and Utilities (NSV)", click on "Current Release".**

3. **Download the following NSV release-package files:**

   Sun Fire V20z server

   Download the following files into the directory /export/home/v20z on your local Linux machine.

   ```
   nsv_V2_2_0_6.zip
   nsv-v20z-bios-fw_V2_2_0_6i.zip
   ```

   Sun Fire V40z server

   Download the following files into the directory /export/home/v40z on your local Linux machine.

   ```
   nsv_V2_2_0_6.zip
   nsv-v40z-bios-fw_V2_2_0_6i.zip
   ```

Unzip the NSV package files

● **Unzip the NSV release-package files into the directory you created on your local Linux machine.**

   Use the following command format:

   unzip *<filename>*

   If the unzipping process creates new zip archive files, unzip these new files as well.

Mount the NSV Share on the Service Processor

1. **Move to the directory** /etc.

   cd /etc

2. **Open the file** /etc/exports **using your preferred text editor.**

3. **Add one of the following lines, depending on your type of server, to the** exports **file:**

```
/export/home/v20z *(rw,no_root_squash)
```

or

```
/export/home/v40z *(rw,no_root_squash)
```

4. **Move to the directory** `/etc/init.d`**.**

5. **Restart the NFS service using one of the following methods, depending on what type of Linux you are using:**

   ■ For SUSE Linux, use these commands:

   a. **Restart the NFS service:**

   ```
   /etc/init.d/nfsserver stop
   /etc/init.d/nfsserver start
   ```

   b. **Use the command below to verify that** `/export/home/v20z` **or** `/export/home/v40z` **is listed:**

   ```
   showmount -e localhost
   ```

   ■ For Red Hat Linux, use these commands:

   a. **Restart the NFS service:**

   ```
   /etc/init.d/nfs stop
   /etc/init.d/nfs start
   ```

   b. **Use the command below to verify that** `/export/home/v20z` **or** `/export/home/v40z` **is listed:**

   ```
   showmount -e localhost
   ```

6. **Enter the following command:**

   ```
   ifconfig -a
   ```

7. **Obtain the IP address by which your local Linux machine connects to the network.**

8. **Enter the following command:**

   ssh -l *<SP_username>* *<SP_IP>*

   where *<SP_username>* is your user name for logging in to the SP; and

   where *<SP_IP>* represents the SP IP address that is displayed on the front-panel LCD display of the Sun Fire V20z or Sun Fire V40z server.

9. At the `ssh` **prompt, enter one of the following commands:**

   Sun Fire V20z server:

   sp add mount -r *<linux-ip-address>***:/export/home/v20z -l /mnt**

   Sun Fire V40z server:

   sp add mount -r *<linux-ip-address>***:/export/home/v40z -l /mnt**

10. At the `ssh` **prompt, enter the following command:**

    sp get mounts

    The directory /export/home/v20z or /export/home/v40z should now be mounted.

Perform the SP Update

Ensure that the Platform is Powered Off

1. **To verify the power state of the platform side of the server, enter the following command:**

   platform get power state

   Note – If the platform is powered on, the green LED below the floppy diskette drive is illuminated.

   ---

2. **If the result returned is ON, then power off the platform side with the following command:**

   platform set power state off -f

Verify the Version of Java Runtime Environment

Ensure that Java runtime environment (JRE) 1.4 or higher is installed on your local Linux machine. If your version of JRE is lower than 1.4, this update procedure will not work.

● **From a terminal window, type the following command:**

java -version

If Java is properly installed, you will see a result similar to the following:

```
java version "1.4.2_06"
Java(TM) 2 Runtime Environment, Standard Edition (build 1.4.2_06-b03)
```

```
Java HotSpot(TM) Client VM (build 1.4.2_06-b03, mixed mode)
```

Update the SP Firmware

Step 1 - Launch the SP update utility on the Linux machine

Enter one of the following commands in a terminal window on your local Linux
machine:

Sun Fire V20z server:

```
java -jar
/export/home/v20z/update_server/V2.2.0.6/updateServer.jar -f
/export/home/v20z/sw_images/sp/spbase/V2.2.0.20/install.image -p
50000
```

Sun Fire V40z server:

```
java -jar
/export/home/v40z/update_server/V2.2.0.6/updateServer.jar -f
/export/home/v40z/sw_images/sp/spbase/V2.2.0.20/install.image -p
50000
```

Note – Enter the command on one continuous line at the prompt.

The following message appears in the terminal window:

```
The SP update process will take several minutes to complete during
which the SP will be rebooted. You may now execute the "sp update
flash all" command on the SP to start the update...
```

Step 2 - Start the update process from the Service Processor

Return to the terminal window with the SSH connection to the SP.

- **Launch the update process with the following command:**

  sp update flash all -i *<ip_address_linux_machine>* **-p 50000**

  The SP executes the command and reboots itself. The reboot process takes a few
  minutes.

  The SSH session automatically terminates.

  In the terminal window running the Java utility, the following messages appear as
  the SP reboots and updates itself:

```
/10.6.164.10:(0)Received a ping request
```
```
/10.6.164.10:(0)Replying to the ping request
```

```
/10.6.164.10:(0)Waiting for an update request from a SP..this may take
a few minutes

/10.6.164.10:(0)Received an update request

/10.6.164.10:(1)Sending an update accept message to the SP

/10.6.164.10:(2)Sending a write request to the SP

/10.6.164.10:(3)Transferring image file to the SP...this may take a
few minutes

/10.6.164.10:(4)Waiting for the file transfer status from the SP

/10.6.164.10:(4)File transfer status: passed

/10.6.164.10:(5)Waiting for image checksum status from the SP...this
may take a few minutes

/10.6.164.10:(5)Image checksum status: passed

/10.6.164.10:(6)Waiting for SP boot status...this may take a few
minutes

/10.6.164.10:(6)Waiting for SP boot status...this may take a few
minutes

/10.6.164.10:(6)SP boot status: passed

/10.6.164.10:(7)SP flash update complete
```

Once the message "(7) SP flash update complete" appears, unless you need to
update more servers, you can close the Java SP Update utility.

Perform the BIOS Update

Ensure that the Platform is Powered Off

1. **To verify the power state of the platform side of the server, enter the following
command:**

   `platform get power state`

   Note – If the platform is powered on, the green LED below the floppy diskette drive
   is illuminated.

   ---

2. **If the result returned is ON, then power off the platform side with the following
command:**

   `platform set power state off -f`

Update the BIOS

3. At the SP prompt, enter one of the following commands, depending on your type of server:

Sun Fire V20z server:

**platform set os state update-bios
/mnt/sw_images/platform/firmware/bios/V1.32.7.2/bios.sp**

Sun Fire V40z server:

**platform set os state update-bios
/mnt/sw_images/platform/firmware/bios/V2.32.8.2/bios.sp**

This update process might take several minutes before any output is returned. The output in your terminal window should look similar to the following:

```
This command may take several minutes.  Please be patient.
Bios started
Bios Flash Transmit Started
Bios Flash Transmit Complete
Bios Flash update Progress: 7
Bios Flash update Progress: 6
Bios Flash update Progress: 5
Bios Flash update Progress: 4
Bios Flash update Progress: 3
Bios Flash update Progress: 2
Bios Flash update Progress: 1
Bios Flash update complete
```

4. Once the BIOS update is completed, the server automatically powers off.

Verify the Updates

Power on the server again.

Once the server powers on, if the BIOS and SP firmware update operations were successful, a BIOS message is displayed on the console.

For the beginning section of this message, see "Console Output After Successful Update on a Sun Fire V20z Server" on page 25 or "Console Output After Successful Update on a Sun Fire V40z Server" on page 26.

Housecleaning Tasks

The update procedure is now complete.

Please note:

- If the local client from which you performed the update procedure will remain at this network location and act as a permanent NSV server, leave the directory mounted and shared.
- If the local client from which you performed the update procedure is at this network location temporarily (for example, if you used a laptop computer to update your server), we recommend that you unmount and unshare the directory.

Unmount the Directory

Unmount the directory that you mounted previously.

1. **From the SP, enter the following command to unmount the directory:**

   `sp delete mount`

2. **To verify that the directory has been unmounted, enter the following command:**

   `sp get mounts`

   You should not see the directory `/export/home/v20z` or `/export/home/v40z` (depending on your type of server).

Edit the File `/etc/exports`

1. **Open the file** `/etc/exports` **using your preferred text editor.**

2. **Remove the line that you had added, depending on your type of server, from the** `exports` **file:**

   `/export/home/v20z *(rw,no_root_squash)`

   or

   `/export/home/v40z *(rw,no_root_squash)`

Console Output After Successful Update on a Sun Fire V20z Server

Once the server reboots, if the BIOS and firmware update operations were successful, a text message appears; the following text shows the beginning of a sample message for an updated server.

Note – Ensure that, in the header of this text message, the System BIOS Revision indicates **V1.32.7.2**.

```
PhoenixBIOS 4.0 Release 6.0

Copyright 1985-2002 Phoenix Technologies Ltd.

All Rights Reserved

Production RELEASE: System BIOS Revision = V1.32.7.2

SP Interface (PRS) Revision = 97

SP - BIOS Interface Active


xxxxxxxxxxxxxxxxxxxxxxxxxx

xx    Sun Microsystems    xx

xx      Sun Fire V20z     xx

xxxxxxxxxxxxxxxxxxxxxxxxxx


CPU0 = AMD Opteron(tm) Processor 250

CPU1 = AMD Opteron(tm) Processor 250

2 Processors Detected, CG - CG

PCIX - Slot0: PCIX-66     Slot1: PCIX-133

4031M System RAM Passed

1024K Cache SRAM Passed

ATAPI CD-ROM: CD-224E

Mouse initialized


<...continued>
```

Console Output After Successful Update on a Sun Fire V40z Server

Once the server reboots, if the BIOS and firmware update operations were successful, a text message appears; the following text shows the beginning of a sample message for an updated server.

Note – Ensure that, in the header of this text message, the System BIOS Revision indicates **V2.32.8.2**.

```
PhoenixBIOS 4.0 Release 6.0
Copyright 1985-2002 Phoenix Technologies Ltd.
All Rights Reserved
Production RELEASE: System BIOS Revision = V2.32.8.2
SP Interface (PRS) Revision = 14


xxxxxxxxxxxxxxxxxxxxxxxxxx
xx    Sun Microsystems    xx
xx      Sun Fire V40z     xx
xxxxxxxxxxxxxxxxxxxxxxxxxx


CPU0 = AMD Opteron(tm) Processor 848
CPU1 = AMD Opteron(tm) Processor 848
CPU2 = AMD Opteron(tm) Processor 848
CPU3 = AMD Opteron(tm) Processor 848
4 Processors Detected, CG - CG - CG - CG
7743M System RAM Passed
1024K Cache SRAM Passed
ATAPI CD-ROM: DV-28E-B
Mouse initialized


<...continued>
```