



Sun Fire™ V20z and Sun Fire V40z Servers

SP and BIOS Update ReadMe

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Updating the BIOS and SP Firmware

This document contains instructions on how to update the BIOS and SP firmware in the Sun Fire™ V20z and Sun Fire V40z servers.

For additional information, refer to the *Sun Fire V20z and Sun Fire V40z Servers—User Guide (817-5248-12)*. For a description of new features and known issues, refer to the *Sun Fire V20z and Sun Fire V40z Servers—Release Notes (817-5252-16)*.

Overview of the Update Procedure

To update the BIOS and SP firmware, you must perform these steps:

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 software-based or Linux software-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 the update:

1. **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.
2. **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>.
3. **Ensure that you have an SSH client properly installed on your local machine.**

Powering 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.

- For the 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).

- For the 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).

Configuring the Service Processor Network Settings

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

- If a DHCP server is available on the network to which the SP is connected, 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).

Resetting 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 [“Connecting Your Local Client to the Network”](#) on page 4.

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.

Connecting Your Local Client to the Network

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.

Configuring the Manager User and Password for the Service Processor

To configure the manager user and password:

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 record the current SP settings and firmware revisions.

The following steps explain how to verify the version of the BIOS and firmware currently installed on the 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 [“Resetting the Service Processor”](#) on page 3.

Check the Software Inventory

- Type the following command:

```
inventory get software
```

The command should return something similar to the following:

- For a Sun Fire V20z server:

Name	Revision	Install	Date	Description
Diagnostics	V2.4.0.6	Thu Jan	1 21:59:13 1970	Server Diagnostics
BIOS-V20z	V1.35.2.6	Fri Jun	9 13:52:45 2006	Platform BIOS for V20z servers
SP Value-Add	V2.4.0.10	Fri Jun	9 13:47:31 2006	SP Value-Add Software
SP Base	V2.4.0.10	Fri Jun	9 13:47:31 2006	SP Base Software

- For a Sun Fire V40z server:

Name	Revision	Install	Date	Description
Diagnostics	V2.4.0.6	Thu Jan	1 21:59:13 1970	Server Diagnostics
BIOS-V40z	V2.35.2.2	Fri Jun	9 13:52:45 2006	Platform BIOS for V20z servers
SP Value-Add	V2.4.0.10	Fri Jun	9 13:47:31 2006	SP Value-Add Software
SP Base	V2.4.0.10	Fri Jun	9 13:47:31 2006	SP Base Software

Performing the Server Update From a Solaris Software-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 types of server 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:

- For a Sun Fire V20z server:

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

`nsv_Vx.x.x.x.zip`

`nsv-v20z-bios-fw_Vy.y.y.y.zip`

Where `x.x.x.x` is the NSV version number, and `y.y.y.y` is the BIOS update number related to the NSV number.

- For a Sun Fire V40z server:

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

`nsv_Vx.x.x.x.zip`

`nsv-v40z-bios-fw_Vy.y.y.y.zip`

Where `x.x.x.x` is the NSV version number, and `y.y.y.y` is the BIOS update number related to the NSV number.

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 *<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:

- For a Sun Fire V20z server, enter:

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

- For a Sun Fire V40z server, enter:

```
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 to the file `/etc/dfs/dfstab`, and reboot the server:

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

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 the 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 on one continuous line in a terminal window on your local Solaris machine:

- For a Sun Fire V20z server, enter:

```
java -jar  
/export/home/v20z/update_server/Vx.x.x.x/updateServer.jar -f  
/export/home/v20z/sw_images/sp/spbase/Vy.y.y.y/install.image -p  
50000
```

Where *x.x.x.x* is the version number of the Update Server application, and *y.y.y.y* is the version number of the SP firmware.

- For a Sun Fire V40z server, enter:

```
java -jar  
/export/home/v40z/update_server/Vx.x.x.x/updateServer.jar -f  
/export/home/v40z/sw_images/sp/spbase/Vy.y.y.y/install.image -p  
50000
```

Where *x.x.x.x* is the version number of the Update Server application, and *y.y.y.y* is the version number of the SP firmware.

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:

```
$ java -jar ./s update_server/V2.2.0.6/updateServer.jar -f
./sw_images/sp/spbase/V2.4.0.10/install.image -p 50000
[Fri Jun 09 10:45:38 PDT 2006] Update server is ready; port 50000
[Fri Jun 09 10:46:12 PDT 2006] [/10.4.145.238] [SP_BASE LATEST] Update
started
[Fri Jun 09 10:50:42 PDT 2006] [/10.4.145.238] [SP_BASE LATEST] Update
complete: ./sw_images/sp/spbase/V2.4.0.10/install.image
```

When 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 before you update the BIOS.

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, power off the platform side with the following command:

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

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

- For a Sun Fire V20z server, enter:

```
platform set os state update-bios
/mnt/sw_images/platform/firmware/bios/Vx.x.x.x/bios.sp
```

Where *x.x.x.x* is the BIOS version number.

- For a Sun Fire V40z server, enter:

```
platform set os state update-bios
/mnt/sw_images/platform/firmware/bios/Vx.x.x.x/bios.sp
```

Where *x.x.x.x* is the BIOS version number.

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. When the BIOS update is completed, the server automatically powers off.

Verify the Updates

- Power on the server again.

When 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 22 or [“Console Output After Successful Update on a Sun Fire V40z Server”](#) on page 23.

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

To 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

- **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 Software-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 types of server 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 NSV release-package files:

- For a Sun Fire V20z server:

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

```
nsv_Vx.x.x.x.zip
```

```
nsv-v20z-bios-fw_Vy.y.y.y.zip
```

Where `x.x.x.x` is the NSV version number, and `y.y.y.y` is the BIOS update number related to the NSV number.

- For a Sun Fire V40z server:

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

```
nsv_Vx.x.x.x.zip
```

```
nsv-v40z-bios-fw_Vy.y.y.y.zip
```

Where `x.x.x.x` is the NSV version number, and `y.y.y.y` is the BIOS update number related to the NSV number.

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 Enterprise 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 `<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:

- For a Sun Fire V20z server, enter:

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

- For a Sun Fire V40z server, enter:

```
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/Vx.x.x.x/updateServer.jar -f  
/export/home/v20z/sw_images/sp/spbase/Vy.y.y.y/install.image -p  
50000
```

Where *x.x.x.x* is the version number of the Update Server application, and *y.y.y.y* is the version number of the SP firmware.

Sun Fire V40z server:

```
java -jar  
/export/home/v40z/update_server/Vx.x.x.x/updateServer.jar -f  
/export/home/v40z/sw_images/sp/spbase/Vy.y.y.y/install.image -p  
50000
```

Where *x.x.x.x* is the version number of the Update Server application, and *y.y.y.y* is the version number of the SP firmware.

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:

```
$ java -jar ./s update_server/V2.2.0.6/updateServer.jar -f
./sw_images/sp/spbase/V2.4.0.10/install.image -p 50000
[Fri Jun 09 10:45:38 PDT 2006] Update server is ready; port 50000
[Fri Jun 09 10:46:12 PDT 2006] [/10.4.145.238] [SP_BASE LATEST] Update
started
[Fri Jun 09 10:50:42 PDT 2006] [/10.4.145.238] [SP_BASE LATEST] Update
complete: ./sw_images/sp/spbase/V2.4.0.10/install.image
```

When 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 before you update the BIOS.

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, power off the platform side with the following command:

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

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

- For a Sun Fire V20z server, enter:

```
platform set os state update-bios
/mnt/sw_images/platform/firmware/bios/Vx.x.x.x/bios.sp
```

Where *x.x.x.x* is the BIOS version number.

- For a Sun Fire V40z server, enter:

```
platform set os state update-bios
/mnt/sw_images/platform/firmware/bios/Vx.x.x.x/bios.sp
```

Where *x.x.x.x* is the BIOS version number.

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. When the BIOS update is complete, the server automatically powers off.

Verify the Updates

- Power on the server again.

When 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 22](#) or [“Console Output After Successful Update on a Sun Fire V40z Server” on page 23](#).

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), you should 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

When 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 the System BIOS Revision indicates the updated version number in the header of this text message.

```
PhoenixBIOS 4.0 Release 6.0
Copyright 1985-2002 Phoenix Technologies Ltd.
All Rights Reserved
Production RELEASE: System BIOS Revision = vxx.x.x.x
SP Interface (PRS) Revision = 97
SP - BIOS Interface Active
```

```
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xx  Sun Microsystems  xx
xx  Sun Fire V20z    xx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
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

When 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 the System BIOS Revision indicates the updated version number in the header of this text message.

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

```
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
xx   Sun Microsystems   xx
xx   Sun Fire V40z     xx
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
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>
```

