Caution – Failure to follow these procedures will cause your system to be unable to recognize the new CPU/Memory board.

If a CPU/Memory board is sold as a field-replaceable unit (FRU), it must be used ONLY for replacement use. FRUs must not be used to upgrade CPU performance in systems. Such usage can violate United States export regulations.

UltraSPARC® IV+ CPU/Memory boards are not supported in Sun Fire™ 4810/3800 systems.

Hardware Requirements

- Sun Fire 25K/15K systems require (part number 300-1705) Power Supplies.
- Sun Fire 15K/12K systems require the Carrier Plate Upgrade Kit.
- Sun Fire E6900/E4900 and Sun Fire 6800/4800 systems require these hardware upgrades:
  - Sun Fire E6900 and Sun Fire 6800 systems upgrading from UltraSPARC IV or earlier CPU/Memory boards that wish to support two domains in one partition, must install the Repeater Board upgrade kit.
  - Sun Fire 6800 systems require the Sun Fire 6800 UltraSPARC IV/IV+ Upgrade Kit, which includes the EMI gasket kit to be installed in the card cage and six new power supplies (PS0 through PS5).

Note – Sun Fire E6900 and upgraded Sun Fire 6800 systems upgrading to UltraSPARC IV+ CPU/Memory boards do not require the Sun Fire 6800 UltraSPARC IV/IV+ Upgrade Kit.

- Sun Fire E4900 and Sun Fire 4800 systems require the Sun Fire E4900/4800 UltraSPARC IV/IV+ Upgrade Kit, which includes the EMI gasket kit to be installed in the card cage, three new power supplies (PS0 through PS2), and three new fan trays: FT0 (bottom left), FT1 (top), and FT2 (bottom right).
Caution – The Sun Fire E4900 and Sun Fire 4800 systems might shut down if you do not install the additional upgrades that are required for the UltraSPARC IV+ CPU/Memory boards.

Checking Hardware Upgrades

- For Sun Fire E4900 and Sun Fire 6800/4800 systems, determine if the hardware upgrades are already installed by using the system controller `showfru` command to see the manufacturing record of the FRU part numbers.

```
schostname:SC> showfru -r manr
```

This command is available with firmware version 5.18.1 and later. Alternatively, you can find the part numbers on the device label.

Firmware and OS Minimum Requirements

Note – Firmware on all boards and assemblies must be at the same level as the new CPU/Memory board.

If your system requires a software upgrade and a firmware upgrade, first upgrade the firmware. Install new CPU/Memory boards only after you have upgraded the firmware and software.

- Sun Fire E25K/E20K systems and upgraded Sun Fire 15K/12K systems require these versions:
  - System Management Services (SMS) 1.6 or subsequent compatible versions
  - Solaris 9 9/05, Solaris 10 3/05 HW1 or Solaris 10 1/06 Operating Systems
- Sun Fire E6900/E4900 systems and upgraded Sun Fire 6800/4800 systems require these versions:
  - Firmware level 5.20.1 or subsequent compatible versions
  - Solaris 9 9/05, Solaris 10 3/05 HW1, or Solaris 10 1/06 Operating Systems

For latest patch information go to [http://sunsolve.sun.com](http://sunsolve.sun.com). Installation information and README files are included in the patch download.

Checking Firmware on Boards and Assemblies in Sun Fire E25K/E20K or Sun Fire 15K/12K Systems

1. Before installing new CPU/Memory boards, use the `flashupdate -d` command to determine if the firmware needs to be updated:

```
mainsc:SC> flashupdate -d <domain name> -f <firmware.path> -n
```

2. Use the following command to determine if the SMS needs to be updated:

```
mainsc:SC> /opt/SUNWSMS/bin/smsversion
```
Upgrading Firmware in Sun Fire E25K/E20K or Sun Fire 15K/12K Systems

1. Log in to the main system controller and install the system board firmware upgrade by using the `flashupdate` command for your system:

   ```bash
   sc0:sms-user:> flashupdate -f /opt/SUNWSMS/hostobjs/sgcpu.flash SB#
   ```

   Replace SB# with the board number of the newly inserted UltraSPARC IV+ CPU/Memory boards. For example, SB3.

   For details on using the `flashupdate` command, refer to the system controller manual for your product.

2. Repeat this step for each new CPU/Memory board.

Checking Firmware on Boards and Assemblies in Sun Fire E6900/E4900 or Sun Fire 6800/4800 Systems

1. Before installing new CPU/Memory boards, use the following command to determine if the firmware needs to be updated:

   ```bash
   mainsc:SC> showboards -p proms
   ```

2. Use the following command to determine if the real time operating system (RTOS) needs to be updated:

   ```bash
   mainsc:SC> showsc -v
   ```

   If updates are required, use the system controller `flashupdate` command as shown in the upgrading firmware section that follows.

Upgrading Firmware in Sun Fire E6900/E4900 or Sun Fire 6800/4800 Systems

1. Connect to the spare system controller and install the firmware upgrade by using the `flashupdate` command for your system.

   ```bash
   sparesc:sc> flashupdate -f URL scapp rtos
   ```

2. Repeat the firmware installation procedure for the main system controller.

   ```bash
   mainsc:SC> flashupdate -f URL all rtos
   ```
Accessing Sun Documentation
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http://www.sun.com/service/contacting

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Sun Fire High-End and Midrange Systems UltraSPARC IV+ 1.8 GHz CPU/Memory Board Upgrade Requirements,
part number 819-6116-10(v2)