Caution – Failure to follow these procedures will cause your system to not recognize the new CPU/Memory board.

Note – 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.

CPU/Memory Board Rules

Different types of UltraSPARC® CPU/Memory boards can be mixed within a single Sun Fire™ E2900/V1280/Netra™ 1280 system.

However, a CPU/Memory board might fail to function if the following rules are violated:

- The firmware on all boards (and other assemblies) in the system must be at the same level.

- If different versions of boards are used in a system, the firmware level for all must be equal to (or greater than) the highest MINIMUM required by any board or assembly in the system.

  For example, a system has 5.13.0012 firmware and one 900 MHz CPU/Memory board. If a 1.2 MHz UltraSPARC IV CPU/Memory board (which requires 5.17.0 firmware) is to be added to the system, the highest...
minimum for any board or assembly in the system increases to 5.17.0. The whole system must be upgraded to 5.17.0 firmware or a subsequent compatible version.

As another example, a system has 5.13.0013 firmware and has one 1.2 GHz CPU/Memory board. If a 900 MHz UltraSPARC III (Cu) CPU/Memory board (5.13.0012 minimum firmware) is added to the system, the highest minimum in the system remains 5.13.0013. The 900 MHz CPU/Memory board must be upgraded (from 5.13.0012 to 5.13.0013 or a subsequent compatible version).

- Install the new board or assembly only after any required firmware and software upgrades have been installed.

Firmware and Software Requirements

The following CPU/Memory boards require these minimum firmware levels:

### TABLE 1  Firmware Requirements for CPU/Memory Boards

<table>
<thead>
<tr>
<th>Board type</th>
<th>Minimum Firmware Requirement</th>
<th>Name used in TABLE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>UltraSPARC IV 1.2 GHz</td>
<td>5.17.0</td>
<td>Type A</td>
</tr>
<tr>
<td>UltraSPARC III (Cu) 1.2 GHz</td>
<td>5.13.0013</td>
<td>Type B</td>
</tr>
<tr>
<td>UltraSPARC III (Cu) 900 MHz</td>
<td>5.13.0012</td>
<td>Type C</td>
</tr>
</tbody>
</table>

a. Sun Microsystems, Inc. reserves the right to introduce new board types and assemblies at any time. Sun also reserves the right to change firmware and software requirements at any time.
b. Or subsequent compatible versions.

If you upgrade a system by installing one or more CPU/Memory boards, make sure that the firmware and Solaris™ OS meet (or exceed) the minimum revision levels shown in TABLE 2.

### TABLE 2  Firmware and Software Requirements for Sun Fire E2900/V1280 and Netra 1280 Systems

<table>
<thead>
<tr>
<th>CPU/Memory board types (see TABLE 1):</th>
<th>Minimum firmware for ALL boards and assemblies:</th>
<th>Minimum OS version:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or more type A</td>
<td>5.17.0</td>
<td>Solaris 8 2/04 or Solaris 9 4/04</td>
</tr>
<tr>
<td>0 type A, and 1 or more type B</td>
<td>5.13.0013</td>
<td>Solaris 8 02/02 or Solaris 8 2/04 or Solaris 9 2/04</td>
</tr>
<tr>
<td>0 type A or B, and 1 or more type C</td>
<td>5.13.0012</td>
<td>Solaris 8 02/02 or Solaris 8 2/04 or Solaris 9 2/04</td>
</tr>
</tbody>
</table>
Checking the Firmware

Do not install a new CPU/Memory board if the firmware in the system does not meet the minimum requirements of the new board.

♦ To determine the firmware level, use this command:

```
lom> showboards -p proms
```

Refer to the system controller command reference manual for your system for information about software commands.

Upgrading the Firmware

If TABLE 2 indicates that your system requires an upgrade of firmware, software, or both, install the upgrades in this order:

1. Upgrade the firmware first.
2. Upgrade the software.
3. Install the CPU/Memory board(s) last.

**Note** – You can read about the latest firmware and software requirements, and download patches at:
http://sunsolve.sun.com

♦ To upgrade the firmware on all system boards (including CPU/Memory boards and I/O assemblies), use the `flashupdate` command:

```
lom> flashupdate -f the appropriate URL scapp rtos
lom> flashupdate -f the appropriate URL systemboards
```

For an explanation of “appropriate URL,” refer to the system controller command reference manual for your system.
Accessing Sun Documentation
You can view, print, or purchase a broad selection of Sun documentation, including localized versions, at:
http://www.sun.com/documentation

Contacting Sun Technical Support
If you have technical questions about this product that are not answered in this document, go to:
http://www.sun.com/service/contacting

Sun Welcomes Your Comments
Sun is interested in improving its documentation and welcomes your comments and suggestions. You can submit your comments by going to:
http://www.sun.com/hwdocs/feedback
Please include the title and part number of your document with your feedback:
Sun Fire E2900/V1280 and Netra 1280 Systems CPU/Memory Board Upgrade Requirements Guide, part number 817-5952-10