Sun SPARC® Enterprise M8000/M9000 Servers Product Notes

For XCP Version 1081

Sun Microsystems, Inc.
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Contents

Preface

These Product Notes contain important and late-breaking information about the Sun SPARC® Enterprise M8000/M9000 servers hardware, software, and documentation that became known after the documentation set was published.

Technical Support

If you have technical questions or issues that are not addressed in the Sun SPARC Enterprise M8000/M9000 servers documentation, contact your local Sun Service representative.

For customers in the U.S. or Canada, call 1-800-USA-4SUN (1-800-872-4786). For customers in the rest of the world, find the World Wide Solution Center nearest you by visiting the following web site:

http://www.sun.com/service/contacting/solution.html/

Software Resources

The Solaris™ Operating System and Sun Java™ Enterprise System software are preinstalled on your Sun SPARC Enterprise M8000/M9000 servers.

Additional Information

For additional information, read the release notes which come with your Solaris documentation, as well as the latest *Solaris 10 Sun Hardware Platform Guide*. Also, check the documentation web page for any additional supplements to this book. The most up-to-date information is posted at:

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

Accessing Documentation

Instructions for installing, administering, and using your servers are provided in the Sun SPARC Enterprise M8000/M9000 servers documentation set. The entire documentation set is available for download from the following web site:

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

Note – Information in these product notes supersedes the information in the Sun SPARC Enterprise M8000/M9000 servers documentation set.

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Sun SPARC Enterprise M8000/M9000 Servers Product Notes for XCP 1081, part number 820-7236-11

Product Notes

These product notes contain important and late-breaking information about the Sun SPARC® Enterprise M8000/M9000 servers hardware, software, and documentation.

Software Resources

The Solaris™ Operating System and Sun Java™ Enterprise System software are preinstalled on your Sun SPARC Enterprise M8000/M9000 servers.

Latest Solaris Patches

Mandatory Solaris patches for the Sun SPARC Enterprise M8000/M9000 servers should be preinstalled on your system. See "Solaris Patch Information" on page 5 for the list of patches required on your version of the Solaris OS.

Additional Information

For additional information, see the release notes for the version of the Solaris OS that you are using, as well as the Big Admin web site:

http://www.bigadmin.com

General Information About XCP 1081

This section includes the following sections:

What's New in XCP 1081

- The following XSCF commands have been updated:
  - `dumpconfig`(8)
  - `setsmtp`(8)
  - `setsnmp`(8)
  - `showhardconf`(8)

  For details, see the manual pages for each command.
- The following new XSCF commands are supported:
  - `setloginlockout`(8)
  - `showloginlockout`(8)

  For details, see the manual pages for each command.
- New 8GB DIMMs are supported. The XCP 1081 release is the first firmware release to support 8GB DIMMs.

Supported Firmware and Operating System

TABLE 1 lists the firmware and operating system (OS) versions that are supported in this release.

TABLE 1 Firmware and Operating System Versions

Software or Firmware	Version
XSCF Control Package	1081
SPARC64™ VII processors:	XCP 1071
Capacity on Demand (COD) support:	XCP 1050
Solaris Operating System	
SPARC64 VI processors:	Solaris 10 11/06 or later, with required patches
SPARC64 VII processors:	Solaris 10 8/07 or later, with required patches*

* See "Solaris Patch Information" on page 5 for information about patches.
Check `http://sunsolve.sun.com` for the latest patch revision

Note – You cannot boot a domain mounted with the SPARC64 VII processors using the Solaris 10 8/07 installation DVD. Use the Solaris 10 5/08 installation DVD to boot a domain mounted with the SPARC64 VII processors.

Many web browsers support the XSCF Web. The browsers in TABLE 2 have demonstrated compatibility with the XSCF Web through testing.

TABLE 2 Tested Web Browser Versions

Web Browser Application	Version
Firefox	2.0 and 3.0
Microsoft Internet Explorer	6.0 and 7.0

Solaris Patch Information

This section lists mandatory patches for the M8000/M9000 servers.

Always refer to the patch README for information about patch requirements and special installation instructions.

The patch identifiers listed in this section represent the *minimum* level of the patches that must be installed. The two-digit suffix represents the minimum revision level of the patch.

Check `http://sunsolve.sun.com` for the latest patch revision.

Apply patches in the order listed. For the procedures of CPU upgrade including the patches, see "CPU Upgrade (Service Representatives Only)" on page 21.

For additional Solaris OS information see "Solaris OS Issues and Workarounds" on page 45.

Patches for Solaris 10 10/08

Patches are not required for servers running Solaris 10 10/08 OS or later.

Patches for Solaris 10 5/08

The following patch is required for all M8000/M9000 servers running Solaris 10 5/08:

- 137137-09

Solaris 10 5/08 OS might panic/trap during normal domain operation. (CR 6720261) To prevent this you must set the following parameter in the system specification file (`/etc/system`):

```
set heaplp_use_stlb=0
```

Then reboot the domain.

Patches for Solaris 10 8/07

The following patches are required for Solaris 10 8/07 OS only on servers containing SPARC64 VII CPUs. Install them in the order in which they are listed:

1. 119254-51 - SunOS 5.10: Install and Patch Utilities Patch
2. 125891-01 - SunOS 5.10: libc_psr_hwcap.so.1 patch
3. 127755-01 - SunOS 5.10: Fault Manager patch
4. 127127-11 - SunOS 5.10: kernel patch

Solaris 10 8/07 OS with patch 127127-11 might panic/trap during normal domain operation. (CR 6720261) To prevent this you must set the following parameter in the system specification file (`/etc/system`):

```
set heaplp_use_stlb=0
```

Then reboot the domain.

Patches for Solaris 10 11/06

The following patches are required for Solaris 10 11/06 OS. Note that Solaris 10 11/06 does *not* support SPARC64 VII processors, even with these required patches. Install the patches in the order in which they are listed:

1. 118833-36 – Reboot your domain before proceeding.
2. 125100-10 – See the patch README file for a list of other patch requirements.
3. 123839-07
4. 120068-03
5. 125424-01
6. 118918-24
7. 120222-21
8. 125127-01 – Reboot your domain before proceeding.
9. 125670-02
10. 125166-05

Patches for Emulex PCI Express (PCIe) Cards

The following Emulex cards require drivers supplied in patch 120222-26:

- Sun StorageTek™ Enterprise Class 4-Gigabit Dual-Port Fiber Channel PCIe HBA (part SG-XPCIE2FC-EM4)
- Sun StorageTek Enterprise Class 4-Gigabit Single-Port Fiber Channel PCIe HBA (part SG-XPCIE1FC-EM4)

Patches for QLogic PCIe Cards

The following QLogic cards require drivers supplied in patch 125166-10:

- Sun StorageTek Enterprise Class 4-Gigabit Dual-Port Fiber Channel PCIe HBA (part SG-XPCIE2FC-QF4)
- Sun StorageTek Enterprise Class 4-Gigabit Single-Port Fiber Channel PCIe HBA (part SG-XPCIE1FC-QF4)

Obtaining Solaris Patches

The Sun℠ Connection Update Manager can be used to reinstall the patches if necessary or to update the system with the latest set of mandatory patches. For more information about the Sun Connection Update Manager, refer to the *Sun Update Connection System Administration Guide* at:

`http://docs.sun.com/app/docs/prod/updconn.sys`

Or visit:

`http://wikis.sun.com/display/SunConnection/Update+Manager`

There are two options available to register your system and to use the Sun Connection Update Manager to obtain the latest Solaris OS patches:

- "Using the Update Manager GUI to Obtain Patches" on page 8
- "Using the `smpatch` CLI to Obtain Patches" on page 9

Installation information and README files are included in the patch downloads.

Caution – For Sun SPARC Enterprise M8000/M9000 servers running Solaris 10 11/06 OS, patches 123003-03 and 124171-06 must be installed on your system prior to using Sun Connection Update Manager. These patches can be downloaded from `http://sunsolve.sun.com/` if needed. These patches are not required for servers running later versions of Solaris 10 OS.

Using the Update Manager GUI to Obtain Patches

1. **As root, launch the Update Manager from either of the following:**
   - From JDS Launch menu:

     Click Launch->Applications->System Tools->Update Manager
   - From a terminal window:

     Type `/usr/bin/updatemanager`
2. **Complete the registration.**
   - If you have already registered, proceed to Step 3.
   - If you have not yet registered, the Update Manager interface guides you through the registration process. Follow the onscreen instructions.

Note – If you are unable to complete registration using the Sun Connection Update Manager GUI, use the command-line interface (CLI) option to obtain patches. See "Using the `smpatch` CLI to Obtain Patches" on page 9.

3. **In the Available tab in the Update Manager, open the Update Collection drop-down menu and select Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers.**

   Update Manager analyzes your system for any patches that are needed.
4. **If a kernel patch is recommended, select it by clicking the box to the left of the patch ID, then click the Install button.**

   The patch is downloaded to `/var/sadm/spool`.

Note – Kernel patches (such as patch 118833-*xx*, for example) require special instructions for installation (see the patch README for specifics). They are often download-only (interactive) patches, requiring manual installation. You must install kernel patches before any others in order for any remaining patches in the patch set to be installed.

5. **For a kernel patch, continue by typing:**

```
# cd /var/sadm/spool
# unzip patchid-xx.jar
```

6. **Follow the installation instructions in the file** `/var/sadm/spool/`*patchid-xx*`/README.`*patchid-xx*.

7. **After installing** *patchid-xx*, **restart the system with the** `shutdown` **command.**

   Using the `reboot` command does not complete installations of patches that require a restart. You must use the Update Manager or the `shutdown` command.

```
# shutdown -i6
```

8. **Launch the Update Manager again, and select the collection, as in** Step 3.

9. **If the Update Manager does not automatically start a new analysis, click the Check for Updates button.**

10. **Select any patches that are listed by checking the boxes to the left of the patch IDs.**

11. **Click the Install button.**

    Update Manager downloads and installs the patches.

12. **If any of the patches require a system restart, follow the instructions in** Step 7.

    If any patches are installed that require restart, Update Manager offers to restart the system. Alternatively, you can use the `shutdown` command, as described in Step 7. For patches that require restart, you must perform the restart in order for the installation to take effect.

The patch installation is now complete.

Using the `smpatch` CLI to Obtain Patches

1. **Copy the file** `/usr/lib/breg/data/RegistrationProfile.properties` **to your** `/tmp` **directory.**

2. **Edit the file** `/tmp/RegistrationProfile.properties` **to add your user name, password, network proxy (if necessary), and port (if required).**

Note – The user name and password is a Sun Online Account. To create an account, go to `http://sunsolve.sun.com`.

---

3. **Register your system.**

```
# sconadm register -a -r /tmp/RegistrationProfile.properties
```

4. **Obtain the correct patches.**

```
# smpatch set patchpro.patchset=sem3k4k5k8k9k
```

5. **Install any kernel patches.**

   Kernel patches, **such as 118833-***xx*, can be downloaded through the Sun Connection Update Manager.

   a. **Download the patch to your** `/var/sadm/spool` **directory.**

```
# smpatch update -i patchid-xx
```

   b. **Unzip the patch.**

```
# cd /var/sadm/spool
# unzip patchid-xx.jar
```

   c. **Install the patch by following the installation instructions in the file:** `/var/sadm/spool/`*patchid-xx*`/README.`*patchid-xx*.

6. **Restart the system.**

   Using the `reboot` command does not complete installation of patches that require a restart. You must use the Update Manager or the `shutdown` command.

```
# shutdown -i6
```

7. **Display a list of patches.**

```
# smpatch analyse
```

8. **Download and install the patches.**

```
# smpatch update
```

9. **If any of the patches requires a system restart, see** Step 6**.**

   If any patches are installed that require restart, Update Manager offers to restart the system. Alternatively, you can use the `shutdown` command, as described in Step 6. For patches that require restart, you must perform the restart in order for the installation to take effect.

The patch installation is now complete.

Upgrading to XCP 1081

You can upgrade to XCP 1081 from XCP version 1050 or higher. Refer to the *Sun SPARC Enterprise M3000M4000/M5000/M8000/M9000 Servers XSCF User's Guide* for instructions.

Resetting the XSCF Firmware

After updating the XCP firmware to 1081 or later use the `rebootxscf`(8) command to reset the XSCF.

Updating the OpenBoot PROM Firmware

To complete updating the OpenBoot™ PROM (OBP) firmware in the target domain, be sure to restart the domain. You should restart the domain as soon as possible after completing the update.

Updating From a Version Earlier Than XCP 1050

- You cannot directly update to XCP 1081 or later. If you are currently running a version earlier than XCP 1050, you must first update to an interim version of XCP (between 1050 and 1061 inclusive) before updating to XCP 1081 or later. Refer to the product notes document for the interim version for instructions.
- Use the `deleteuser`(8) command to delete any accounts named `admin` prior to updating to XCP 1050 or later. The `admin` account name is reserved in XCP 1050 and higher.

Updating From a Version Earlier Than XCP 1081

On a domain that has been in operation during the XCP update to XCP 1081 or later, when you perform dynamic reconfiguration (DR) to add or replace the SPARC64 VII processors, you need to update the OpenBoot PROM firmware. The OpenBoot PROM firmware is updated as you update the XCP and restart the domain. For this reason, restart all the domains after you update the firmware to XCP 1081 or later, regardless of whether you added or replaced the SPARC64 VII processors.

Functionality Issues and Limitations

This section describes known issues in this release.

Limitations for SPARC64 VII Processors

Caution – You must complete the upgrades to the XCP firmware and to the Solaris OS before inserting SPARC 64 VII processors into the chassis.

General Functionality Issues and Limitations

Caution – For dynamic reconfiguration (DR) and hot-plug issues, see "Solaris OS Issues and Workarounds" on page 45.

Note – For power-on after power-off, wait at least 30 seconds before turning the system power back on, by using the main line switch or the circuit breakers on the distribution panel.

- You cannot use the following user account names, as they are reserved for system use: `root`, `bin`, `daemon`, `adm`, `operator`, `nobody`, `sshd`, `rpc`, `rpcuser`, `ldap`, `apache`, `ntp`, `admin`, and `default`.
- Do not use the Service Processor (SP) as the Network Time Protocol (NTP) server. Using an independent NTP server provides optimal reliability in maintaining consistent time on the SP and the domains. For more information about NTP, see the Sun BluePrints™ document, *Using NTP to Control and Synchronize System Clocks*: `http://www.sun.com/blueprints/0701/NTP.pdf`
- When you use the external power control interface of the external power controller, the following notification signals are not supported:
  - The OS panic or the server hardware error signal (*CPUN/RTNU)
  - The server hardware error signal (power fail, temperature error, and fan error) (*ALARM)
- When you import XCP or update the firmware using the XSCF you might see Web session ID errors displayed on the web browser. When you specify the timeout period as over 30 minutes in the Autologout setting Internal Server Errors might be displayed. To reconnect to the XSCF Web, close the current browser and open the new browser.
- For this XCP release, the XSCF browser user interface (XSCF Web) does not support the External I/O Expansion Unit Manager feature.
- Disable pop-up blocking and remove any plug-ins such as the search tool installed with the browser when you use the XSCF Web.
- XSCF-LAN is compliant with auto-negotiation. Set the network device which connects with XSCF-LAN to the auto-negotiation mode. Otherwise when you connect the XSCF-LAN and the network device (fixed to the full-duplex mode, according to the IEEE 802.3 rule) the XSCF-LAN communicates in half-duplex mode and network communication speed might slow down or communication errors may occur.
- Domains using the ZFS file system cannot use dynamic reconfiguration (DR).
- For 1027A-Z/X1027A-Z, PCIe Dual 10-Gigabit Ethernet Fiber XFP cards, these limits apply:
  - Do not use more than two cards per domain.
  - Do not use these cards in an External I/O Expansion Unit.
- No more than four 4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP cards in an External I/O Expansion Unit (two per PCIe I/O boat).
- The maximum number of IOUA (Base I/O Card) cards per domain is limited to six cards.
- Do not use the CD-RW/DVD-RW drive unit and the TAPE drive unit at the same time.
- Power cables are not redundant on single power feed servers without the dual power feed option. All power cables must be connected and powered on at all

times (6557379).

- The use of the External I/O Expansion Unit to connect the host server to an external boot disk drive is not supported.
- To complete updating the OpenBoot™ PROM firmware in the target domain, be sure to power off/on the domain.
- DR is not compatible with XSCF failover or XSCF reset. Do not start an XSCF failover or reset while a DR operation is running. Wait for a DR operation to finish before starting the failover or reset. If you start the failover or reset first, wait for the failover or reset to finish before starting the DR operation.

  DR operations might fail (with a misleading message regarding the board being unavailable for DR) after the `addfru`(8) or `replacefru`(8) command have been used for active replacement. This happens when the active replacement is done without the diagnostic test in the maintenance menu. Execute the diagnosis in the maintenance menu of the `addfru`(8) or `replacefru`(8) command to avoid this problem. To recover, execute the `testsb`(8) command or delete the CPU/memory board unit using the `deletefru`(8) command and then retry the `addfru`(8) command.
- The `setsnmp`(8) and `showsnmp`(8) commands do not notify the user of authorization failure. When this happens confirm that the SNMP trap host is working and re-execute the command using the correct user name.
- At this time, the power consumption monitoring function (the `showenvironment`(8) commandwith power operand) is not supported.

Additional Information and Procedures

This section describes additional known issues and limitations at the time of this release.

Logging Into the System

In addition to the standard *default* login, the servers is delivered with a temporary login called `admin` to enable remote initial login, through a serial port. The server's privileges are fixed to `useradm` and cannot be changed. You cannot log in as temporary `admin` using the standard UNIX user name and password authentication or SSH public key authentication. The temporary `admin` account has no password, and one cannot be added for it.

The temporary `admin` account is disabled after someone logs in as the default user, or after someone logged in as temporary `admin` has successfully added the first user with valid password and privileges.

If, before the default login is used, you cannot log in as temporary `admin`, you can determine if someone else has done so by executing the `showuser -l` command.

XSCF Web Browser Issues

The XSCF Web browser interface occasionally truncates output. For example when you select SSH on the snapshot screen, the maximum number of character input for Host, Directory, ID, and Password does not correspond to the maximum number of character input on the XSCF Shell. The Panic Log page only displays the last 50 lines of the panic message (CR 6756052). The browser interface displays only the last two digits of the non-audit log size limit (CR 6742502).

To see the full output use the XSCF Shell command-line interface (CLI).

Booting From a WAN Boot Server

The WAN boot installation method enables you to boot and install software over a wide area network (WAN) by using HTTP. To support booting the M8000/M9000 servers from a WAN boot server, you must have the appropriate `wanboot` executable installed and OpenBoot™ version 4.24 or above to provide the needed hardware support.

For information about WAN boot servers, refer to the *Solaris 10 Installation Guide: Network-Based Installations* for the version of Solaris 10 OS that you are using. You can find Solaris 10 OS documentation here:

`http://docs.sun.com/app/docs/prod/solaris.10`

If you do not upgrade the `wanboot` executable, the server will panic, with messages similar to the following:

```
krtld: load_exec: fail to expand cpu/$CPU
krtld: error during initial load/link phase
panic - boot: exitto64 returned from client program
```

Sun Java Enterprise System

The Sun Java™ Enterprise System is a comprehensive set of software and life cycle services that make the most of your software investment. For an overview and documentation, go to:

`http://www.sun.com/service/javaes/index.xml`

Note – Due to an issue that arises from the installation of the Java Enterprise System 5 Update 1 on your system (CR 6644798), it might be necessary to enable the Web Console SMF service.

▼ Enabling the Web Console SMF Service

- **Log in to a terminal as `root`, then enable the service.**

```
# svcadm enable svc:/system/webconsole:console
```

If you have to reload the software, go to the following web site for download and installation instructions:

`http://www.sun.com/software/preinstall`

If you download a fresh copy of software, that software might not include patches that are mandatory for your server. After installing the software, refer to "Solaris Patch Information" on page 5 for information about checking for and installing required patches.

DVD Drives and `cfgadm`

The Solaris `cfgadm`(1M) command does not always unconfigure a DVD drive from a domain on M8000/M9000 systems.

Disable the Volume Management Daemon (`vold`) before unconfiguring a DVD drive with the `cfgadm`(1M) command. To disable `vold`, stop the daemon by issuing the command `/etc/init.d/volmgt stop`. After the device has been removed or inserted, restart the daemon by issuing the command `/etc/init.d/volmgt start`.

Sun Crypto Accelerator 6000 Cards

If you are not using the correct version of the Sun Crypto Accelerator (SCA) 6000 card driver, hot-plug operations on SCA 6000 cards can cause M8000/M9000 servers to panic or hang. Version 1.1 of the SCA 6000 driver and firmware supports hot-plug operations after the required bootstrap firmware upgrade has been performed. Version 1.0 of the SCA 6000 driver does not support hot-plug and should not be used.

U320 PCIe SCSI Card

U320 PCIe SCSI card, part numbers 375-3357-01/02, is not supported in PCI cassettes for Sun SPARC Enterprise M8000/M9000 servers. Customers must use 375-3357-03 or later.

Identifying System Memory

▼ Identifying Degraded Memory in a System

- **Log in to XSCF and show the system status.**

```
XSCF> showstatus
```

The following example identifies DIMM number 0A on Memory Board #5 has degraded memory.

```
XSCF> showstatus
    MBU_B Status:Normal;
        MEMB#5 Status:Normal;
*           MEM#0A Status:Degraded;
```

▼ Using `showdevices` to Identify Memory Size

- **Log in to XSCF and show the devices.**

```
XSCF> showdevices -d domain_id
```

The following example shows a display of the `showdevices -d` command, where 0 is the *domain_id*.

```
XSCF> showdevices -d 0

...

Memory:
-------
           board   perm    base                domain  target deleted remaining
DID XSB    mem MB  mem MB  address             mem MB  XSB    mem MB  mem MB
00  00-0    65536    2402  0x0000000000000000  131072
00  01-0    16384       0  0x000003c000000000  131072
00  01-1    16384       0  0x0000038000000000  131072
00  01-2    16384       0  0x0000034000000000  131072
00  01-3    16384       0  0x0000030000000000  131072
...
```

This example shows that 00-0 has 64 Gigabytes of memory, while the other system boards have 16 Gigabytes.

▼ Using `prtdiag` to Identify Memory Size

- **In the domain, display system diagnosis information.**

```
# prtdiag
```

The following example shows a display of the `prtdiag` command.

```
# prtdiag

...

============================ Memory Configuration ============================

Memory  Available           Memory     DIMM    # of  Mirror Interleave
LSB     Group   Size                  Status     Size    DIMMs Mode Factor
---     ------  ------------------  -------    ------  ----- ------- ----------
 00     A        32768MB            okay       2048MB     16 no       8-way
 00     B        32768MB            okay       2048MB     16 no       8-way
 01     A         8192MB            okay       2048MB      4 no       2-way
 01     B         8192MB            okay       2048MB      4 no       2-way
 02     A         8192MB            okay       2048MB      4 no       2-way
 02     B         8192MB            okay       2048MB      4 no       2-way
 03     A         8192MB            okay       2048MB      4 no       2-way
 03     B         8192MB            okay       2048MB      4 no       2-way
 04     A         8192MB            okay       2048MB      4 no       2-way
 04     B         8192MB            okay       2048MB      4 no       2-way

...
```

This example displays varying memory sizes.

▼ Identifying Permanent Memory in a Target Board

- **Log in to XSCF and show the devices.**

```
XSCF> showdevices -d domain_id
```

The following example shows a display of the `showdevices -d` command, where 0 is the *domain_id*.

```
XSCF> showdevices -d 0

...

Memory:
-------
           board    perm      base               domain   target deleted remaining
DID XSB    mem MB   mem MB    address            mem MB   XSB    mem MB   mem MB
00  00-0    65536     2402   0x0000000000000000  131072
00  01-0    16384        0   0x000003c000000000  131072
00  01-1    16384        0   0x0000038000000000  131072
00  01-2    16384        0   0x0000034000000000  131072
00  01-3    16384        0   0x0000030000000000  131072

...
```

The entry for column 4, `perm mem MB`, indicates the presence of permanent memory if the value is not zero.

The example shows permanent memory on 00-0, with 2402 Mbytes.

If the board includes permanent memory, when you execute the `deleteboard` command or the `moveboard` command, the following notice is displayed:

```
System may be temporarily suspended, proceed? [y|n]:
```

CPU Upgrade (Service Representatives Only)

Note – You must be an authorized service representative to install SPARC64 VII processors in your server.

This section describes procedures for installing SPARC64 VII processors in SPARC Enterprise M8000/M9000 servers:

- "SPARC64 VII CPU Modules Added to a New Domain" on page 21
- "SPARC64 VII Processors Added to an Existing Domain" on page 24

Note – Before upgrading firmware to XCP 1081, refer to "Upgrading to XCP 1081" on page 11.

Caution – You must complete the upgrades to the XCP firmware and to Solaris before inserting SPARC 64 VII processors into the chassis.

For more information about configuring combinations of processors in domains, refer to Section 2.2.13, "Domain Mode Configuration," in the *Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*. In particular, see the section "SPARC64 VI and SPARC64 VII Processors and CPU Operational Modes."

SPARC64 VII CPU Modules Added to a New Domain

▼ Adding a SPARC64 VII CPU Module to a New Domain

Note – If you want to install Solaris 10 8/07 on the new domain, you must install from a patched image on the installation server. (See Step 20.)

1. **Log in to the XSCF using an account with `platadm` privileges.**

2. **Confirm that no FRU is currently listed in `Faulted` or `Deconfigured` status.**

```
XSCF> showstatus
```

3. **Turn off the power to all domains.**

```
XSCF> poweroff -a
```

4. **Confirm that all domains have stopped.**

```
XSCF> showlogs power
```

5. **Change the key position on the operator panel from Locked to Service.**

6. **Collect an XSCF snapshot to archive system status prior to upgrade.**

   If a problem should occur during the upgrade procedure, a snapshot of the system status might be helpful.

```
XSCF> snapshot -t user@host:directory
```

7. **Update the XCP version to 1081.**

   Before updating firmware to XCP 1081, refer to "Upgrading to XCP 1081" on page 11. For instructions for updating the firmware, refer to the *Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

8. **Install the CPU module (CPUM) in the server.**

   For instructions, refer to Chapter 12, "CPU Module Replacement," in the *Sun SPARC Enterprise M8000/M9000 Servers Service Manual*. Note that this procedure involves powering down the entire server.

Caution – After installing the CPU module, you must reconnect the power cable to the power supply.

9. **Log in to the XSCF again, using an account with** `platadm` **or** `fieldeng` **privileges.**

10. **Perform an initial diagnosis of the newly installed CPU module.**

```
XSCF> testsb 01
```

The following example shows a test after adding PSB#01:

```
XSCF> testsb 01
Initial diagnosis is about to start. Continue? [y|n] : y
Initial diagnosis is executing.
Initial diagnosis has completed.
XSB Test Fault
---- ------- --------
01 Passed Normal
```

11. **Confirm that the installed CPU module is recognized by the server and that the error indicator asterisk (*) is not displayed.**

```
XSCF> showhardconf -M
```

12. **Confirm that no abnormality has occurred.**

```
XSCF> showlogs error -v
XSCF> showstatus
```

13. **Change the key position on the operator panel from Service to Locked.**

14. **Power on the existing domains.**

```
XSCF> poweron -a
```

15. **Set the following for the added CPU module:**
    - Set up XSB for the added CPU module.
    - Set up the domain.
    - Set up the CPU operational mode on the domain.

    Refer to Chapter 2, "Setting Up XSCF," in the *Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide* for information about these settings.

16. **Use the `setdomainmode`(8) command to disable the autoboot function of the domain.**

    Refer to the *Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide* and the `setdomainmode`(8) man page for more information.

17. **Power on the new domain.**

```
XSCF> poweron -d domain_id
```

18. **Confirm that the target domain has been correctly started.**

```
XSCF> showlogs power
```

19. **Confirm that no abnormality has occurred.**

```
XSCF> showlogs error -v
XSCF> showstatus
```

20. **Install a version of Solaris OS that supports SPARC64 VII processors.**

    Refer to "Supported Firmware and Operating System" on page 4 for information about supported software versions.

    If you are installing Solaris 10 8/07 on the new domain, you must install from a patched image on the installation server. For information about patches required to run Solaris 10 8/07 with SPARC64 VII processors, refer to "Solaris Patch Information" on page 5. For information about network-based installations, refer to *Solaris 10 8/07 Installation Guide: Network-Based Installations* (part 820-0177).

21. **Use the `setdomainmode`(8) command to enable the autoboot function of the domain.**

    The autoboot function is applied by a domain reboot. For more information, refer to the *Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide* and the `setdomainmode`(8) man page.

SPARC64 VII Processors Added to an Existing Domain

Adding SPARC64 VII Processors to an existing domain is a two step process. First you must prepare the system (see "Preparing to Add SPARC64 VII Processors to an Existing Domain" on page 25) and then you must install the Processors using the instructions that correspond to your installation scenario.

- "Adding a SPARC64 VII CPU Module to a Domain Configured With SPARC64 VI" on page 26.
- "Upgrading a SPARC64 VI CPU Module to SPARC64 VII on an Existing Domain" on page 28

▼ Preparing to Add SPARC64 VII Processors to an Existing Domain

1. **If necessary, upgrade to a version of Solaris OS that supports SPARC64 VII processors.**

   Refer to "Supported Firmware and Operating System" on page 4 for information about supported software versions. Apply any required patches.

2. **Log in to the XSCF using an account with `platadm` privileges.**

3. **Confirm that no FRU is currently listed in `Faulted` or `Deconfigured` status.**

```
XSCF> showstatus
```

4. **Turn off the power for all the domains.**

```
XSCF> poweroff -a
```

5. **Confirm that the power is off for the domains.**

```
XSCF> showlogs power
```

6. **Change the key position on the operator panel from Locked to Service.**

7. **Collect an XSCF snapshot to archive system status prior to upgrade.**

   If a problem should occur during the upgrade procedure, a snapshot of the system status might be helpful.

```
XSCF> snapshot -t user@host:directory
```

8. **Update the XCP version to 1081.**

   Before updating firmware to XCP 1081, refer to "Upgrading to XCP 1081" on page 11. For instructions for updating the firmware, refer to the *Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

9. **Log in to the XSCF again, using an account with `platadm` or `fieldeng` privileges.**

10. **Power on all the domains, and apply OpenBoot PROM firmware.**

```
XSCF> poweron -a
```

    The `ok` prompt is displayed. You do not need to start the Solaris OS.

11. **Check the updated OpenBoot PROM version.**

```
XSCF> version -c cmu -v
```

For XCP 1081, the version of OpenBoot PROM is 02.08.0000. Your output should look similar to the following:

```
XSCF> version -c cmu -v
DomainID  0: 02.08.0000
DomainID  1: 02.08.0000
DomainID  2: 02.08.0000
DomainID  3: 02.08.0000
...
DomainID 15: 02.02.0000

XSB#00-0:  02.08.0000(Current)      02.03.0000(Reserve)
XSB#00-1:  02.08.0000(Current)      02.03.0000(Reserve)
XSB#00-2:  02.08.0000(Current)      02.03.0000(Reserve)
XSB#00-3:  02.08.0000(Current)      02.03.0000(Reserve)
XSB#01-0:  02.08.0000(Current)      02.03.0000(Reserve)
XSB#01-1:  02.08.0000(Current)      02.03.0000(Reserve)
XSB#01-2:  02.08.0000(Current)      02.03.0000(Reserve)
XSB#01-3:  02.08.0000(Current)      02.03.0000(Reserve)
...
```

12. **Turn off the power to all the domains.**

```
XSCF> poweroff -a
```

13. **Continue with the appropriate installation procedure:**

- If you are adding a new SPARC64 VII–equipped CPU module to a domain configured with SPARC64 VI processors, continue with "Adding a SPARC64 VII CPU Module to a Domain Configured With SPARC64 VI" on page 26.
- If you are upgrading an existing SPARC64 VI CPU module in an existing domain to SPARC64 VII processors, continue with "Upgrading a SPARC64 VI CPU Module to SPARC64 VII on an Existing Domain" on page 28.

▼ Adding a SPARC64 VII CPU Module to a Domain Configured With SPARC64 VI

This procedure must be preceded by "Preparing to Add SPARC64 VII Processors to an Existing Domain" on page 25. If you have not completed that procedure, do so before continuing.

1. **Install the CPUM in the server.**

   For instructions, refer to the "CPU Module Replacement," chapter in the *SPARC Enterprise M8000/M9000 Servers Service Manual*. Note that this procedure involves powering down the entire server.

Caution – After installing the CPU module, you must reconnect the power cable to the power supply.

2. **Log in to the XSCF again, using an account with** `platadm` **or** `fieldeng` **privileges.**

3. **Perform an initial diagnosis of the newly installed CPU module.**

```
XSCF> testsb 01
```

   The following example shows a test after adding PSB#01:

```
XSCF> testsb 01
Initial diagnosis is about to start. Continue? [y|n] : y
Initial diagnosis is executing.
Initial diagnosis has completed.
XSB Test Fault
---- ------- --------
01 Passed Normal
```

4. **Confirm that the installed CPU module is recognized by the server and that the error indicator asterisk (*) is not displayed.**

```
XSCF> showhardconf -M
```

5. **Confirm that no abnormality has occurred.**

```
XSCF> showlogs error -v
XSCF> showstatus
```

6. **Change the key position on the operator panel from Service to Locked.**

7. **Set the following for the CPU module:**
   - Set up XSB.
   - Set up the LSB.
   - Add the XSB to the domain.

- Set up the CPU operational mode on the domain.

  Refer to Chapter 2, "Setting Up XSCF," in the *Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide* for information about these settings.

8. **Power on all the domains.**

```
XSCF> poweron -a
```

9. **Confirm that all the domains have been correctly started.**

```
XSCF> showlogs power
```

10. **Confirm that no abnormality has occurred.**

```
XSCF> showlogs error -v
XSCF> showstatus
```

▼ Upgrading a SPARC64 VI CPU Module to SPARC64 VII on an Existing Domain

This procedure must be proceeded by "Preparing to Add SPARC64 VII Processors to an Existing Domain" on page 25. If you have not completed that procedure please do so before continuing.

1. **Replace the SPARC64 VI CPU module with the SPARC64 VII CPU module.**

   For instructions, refer to Chapter 12, "CPU Module Replacement," in the *Sun SPARC Enterprise M8000/M9000 Servers Service Manual*. Note that this procedure involves powering down the entire server.

Caution – After installing the CPU module, you must reconnect the power cable to the power supply.

2. **Log in to the XSCF again, using an account with** `platadm` **or** `fieldeng` **privileges.**

3. **Perform an initial diagnosis of the newly installed CPU module.**

```
XSCF> testsb 01
```

The following example shows a test after adding PSB#01 to a SPARC Enterprise M5000 server:

```
XSCF> testsb 01
Initial diagnosis is about to start. Continue? [y|n] : y
Initial diagnosis is executing.
Initial diagnosis has completed.
XSB Test Fault
---- ------- --------
01 Passed Normal
```

4. **Confirm that the installed CPU module is recognized by the server and that the error indicator asterisk (*) is not displayed.**

```
XSCF> showhardconf -M
```

5. **Confirm that no abnormality has occurred.**

```
XSCF> showlogs error -v
XSCF> showstatus
```

6. **Change the key position on the operator panel from Service to Locked.**

7. **Set up and confirm the CPU operational mode of the domain.**

For more information, refer to Chapter 2, "Setting Up XSCF," in the *Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

8. **Power on all the domains.**

```
XSCF> poweron -a
```

9. **Confirm that the target domain has been correctly started.**

```
XSCF> showlogs power
```

10. **Confirm that no abnormality has occurred.**

```
XSCF> showlogs error -v
XSCF> showstatus
```

Information About Hardware

This section describes the special instructions and the issues about the SPARC Enterprise M8000/M9000 server hardware.

Notes on the Use of 200V Power Supply

For servers that have the B-type plug, confirm that a 30A overcurrent protection device is available outside the server. If one is not available, prepare an external 30A overcurrent protection that can be achieved by means of no-fuse breakers (NFBs) or fuses. The B-type plug refers to plugs other than grounding-type ones with two parallel blades, such as the NEMA L6-30, L6-20, L6-15, and L5-15.

Hardware Issues and Workarounds

DVD Drives and `cfgadm`

The Solaris `cfgadm`(1M) command does not always unconfigure a DVD drive from a domain on SPARC Enterprise M8000/M9000 servers.

Disable the Volume Management Daemon (vold) before unconfiguring a DVD drive with the `cfgadm`(1M) command. To disable vold, stop the daemon by issuing the command `/etc/init.d/volmgt stop`. After the device has been removed or inserted, restart the daemon by issuing the command `/etc/init.d/volmgt start`.

Sun Crypto Accelerator 6000 Cards

If you are not using the correct version of the Sun Crypto Accelerator (SCA) 6000 card driver, hot-plug operations on SCA 6000 cards can cause SPARC Enterprise M8000/M9000 servers to panic or hang. Version 1.1 of the SCA6000 driver and firmware supports hot-plug operations after the required bootstrap firmware upgrade has been performed. Version 1.0 of the SCA6000 driver does not support hot-plug and should not be used.

Hardware Documentation Updates

This section contains late-breaking hardware information and corrections that became known after the documentation set was published.

TABLE 3 lists known documentation updates.

TABLE 3 Hardware Documentation Updates

Title	Page Number	Update
SPARC Enterprise M8000/M9000 Server Site Planning Guide	3-14	TABLE 3-8 “Specifications (Single-Phase Power Supply Connections)” It describes the Plug geometry of SPARC Enterprise M8000/M9000 Servers for Japan as “NEMA L6-30R” which should be modified as “NEMA L6-30P.” The following note will be added. **Note -** For servers that have the B-type plug, confirm that a 30A overcurrent protection device is available outside the server. If one is not available, prepare an external 30A overcurrent protection that can be achieved by means of no-fuse breakers (NFBs) or fuses. The B-type plug refers to plugs other than grounding-type ones with two parallel blades, such as the NEMA L6-30, L6-20, L6-15, and L5-15.
SPARC Enterprise M8000/M9000 Server Installation Guide	2-4	TABLE 2-3 "Power Supply Connection Specifications" The following note will be added. **Note -** For servers that have the B-type plug, confirm that a 30A overcurrent protection device is available outside the server. If one is not available, prepare an external 30A overcurrent protection that can be achieved by means of no-fuse breakers (NFBs) or fuses. The B-type plug refers to plugs other than grounding-type ones with two parallel blades, such as the NEMA L6-30, L6-20, L6-15, and L5-15.
	3-36 3-42	3.4.3 “Connecting Cables Between XB Units” The following caution will be added. **Caution -** If you are unable to prepare a torque screwdriver, secure the clock cable connectors by hand. Do not secure them with a regular screwdriver.
SPARC Enterprise M8000/M90000 Servers Service Manual	6-31	Please replace “single-rank” with “1 rank” and “dual-rank” with “2 rank” in the text.
	16-6 17-7	The following caution will be added. **Caution -** If you are unable to prepare a torque screwdriver, secure the clock cable connectors by hand. Do not secure them with a regular screwdriver.
SPARC Enterprise M8000/M9000 Servers Service Manual	C-3	Section C.4, “SAS Port,” will be deleted.

Updates of the SPARC Enterprise M8000/M9000 Servers Site Planning Guide

The following information supersedes the information in the S*PARC Enterprise M8000/M9000 Servers Site Planning Guide*.

The table here corrects TABLE 3-1, "Ambient Environmental Requirements," in Section 3.1.1, "Ambient Environmental Requirements".

TABLE 4 Ambient Environmental Requirements

	Operating Range	**Non-Operating Range**	**Optimum**
Ambient temperature	5˚C to 35˚C (41˚F to 95˚F)	Unpacked: 0˚C to 50˚C (32˚F to 122˚F) Packed: -20˚C to 60˚C (-4˚F to 140˚F)	21˚C to 23˚C (70˚F to 74˚F)
Relative humidity*	20% RH to 80% RH	to 93% RH	45% RH to 50% RH
Altitude restriction\	3,000 m (10,000 ft)	12,000 m (40, 000 ft)	
Temperature conditions	5 to 32 (41 to 89.6) at an installation altitude ranging from 0 to less than 1500 m (4921 feet) above sea level		
	5 to 30 (41 to 86) at an installation altitude ranging from 1500 m (4921 feet) to less than 2000 m (6562 feet) above sea level		
	5 to 28 (41 to 82.4) at an installation altitude ranging from 2000 m (6562 feet) to less than 2500 m (8202 feet) above sea level		
	5 to 26 (41 to 78.8) at an installation altitude ranging from 2500 m (8202 feet) to 3000 m (9843 feet) above sea level		

* There is no condensation regardless of the temperature and humidity.

\ All altitudes are above sea level.

Updates of the SPARC Enterprise M8000/M9000 Servers Overview Guide

The following information supersedes the information in the S*PARC Enterprise M8000/M9000 Servers Overview Guide*.

The table here corrects TABLE 1-4, "Ambient Environmental Requirements," in Section 1.2.3, "Ambient Environmental Requirements".

TABLE 5 Ambient Environmental Requirements

	Operating Range	**Non-Operating Range**	**Optimum**
Ambient temperature	5˚C to 35˚C (41˚F to 95˚F)	Unpacked: 0˚C to 50˚C (32˚F to 122˚F) Packed: -20˚C to 60˚C (-4˚F to 140˚F)	21˚C to 23˚C (70˚F to 74˚F)
Relative humidity*	20% RH to 80% RH	to 93% RH	45% RH to 50% RH
Altitude restriction\	3,000 m (10,000 ft)	12,000 m (40, 000 ft)	
Temperature conditions	5 to 32 (41 to 89.6) at an installation altitude ranging from 0 to less than 1500 m (4921 feet) above sea level		
	5 to 30 (41 to 86) at an installation altitude ranging from 1500 m (4921 feet) to less than 2000 m (6562 feet) above sea level		
	5 to 28 (41 to 82.4) at an installation altitude ranging from 2000 m (6562 feet) to less than 2500 m (8202 feet) above sea level		
	5 to 26 (41 to 78.8) at an installation altitude ranging from 2500 m (8202 feet) to 3000 m (9843 feet) above sea level		

* There is no condensation regardless of the temperature and humidity.

\ All altitudes are above sea level.

Updates of the SPARC Enterprise M8000/M9000 Servers Service Manual

The following information supersedes the information in the *SPARC Enterprise M8000/M9000 Servers Service Manual*.

Maintenance Tools

The table here corrects TABLE 1-1, “Maintenance Tools,” in Section 1.4, “Required Maintenance Tools”, page 1-10.

TABLE 1-1 Maintenance Tools

No	Name	Use
1	Torque wrench [8.24 Nm (84 kgf cm)]	Used to connect the expansion cabinet and power cabinet
2	Sockets for 10mm (M6) and 13mm (M8) torque wrench [8.24 Nm (84 kgf cm)]	Used to connect the expansion cabinet and power cabinet
3	Torque wrench extension	
4	Torque screwdriver [0.2 Nm (2.0 kgf cm)]	Used to secure clock cables between the cabinets if the expansion cabinet of the SPARC Enterprise M9000 server is mounted
5	Slotted bit [0.2 Nm (1.0 kgf cm)]	Used to secure clock cables between the cabinets if the expansion cabinet of the SPARC Enterprise M9000 server is mounted
6	Wrist strap	For antistatic purposes
7	Conductive mat	For antistatic purposes
8	CPU module replacement tool	For mounting and removing CPU Modules (accessory)
9	SunVTS	Test program

Powering the Server Off From the Maintenance Terminal

The description here corrects "From the Maintenance Terminal" in Section 1.4.4, "Powering the Server Off".

1. Notify users that the server is going down.

2. **Back up the system files and data as necessary.**

3. **Log into the XSCF Shell and type the poweroff command**

```
XSCF> poweroff -a
```

The following activities occur when the poweroff command is used:

- The Solaris OS shuts down cleanly.
- The server powers off to Standby mode (the XSCF unit and one fan will still have power).

For details of the command, see the XSCF Reference Manual for your server.

4. **Switch off all main line switches of the AC section.**

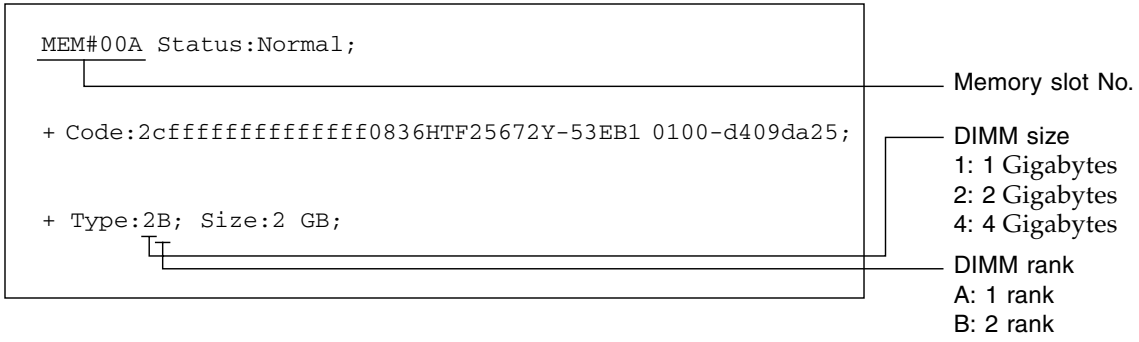
Caution – There is an electrical hazard if the power cords are not disconnected. All power cords must be disconnected to completely remove power from the server.

Explanation of DIMM Information

The figure here corrects FIGURE 6-20, “Explanation of DIMM Information,” on page 6-31 in Section 6.4.2.1, “Confirmation of DIMM Information.” The corrected figure is as follows.

FIGURE 6-20 shows an example of how to read the DIMM information displayed in the Type field.

FIGURE 6-20 Example of DIMM Information



Mounting the PCI Card

The description here corrects step 9 on page 13-10 in Section 13.2, "Active Replacement," of Chapter 13, "PCI Slot Device Replacement."

9. Mount the replacement PCI card on the PCI cassette. (Perform this work on the conductive mat.)

FIGURE 13-6 shows card positioning post and card positioning tab.

FIGURE 13-6 Card positioning post and card positioning tab

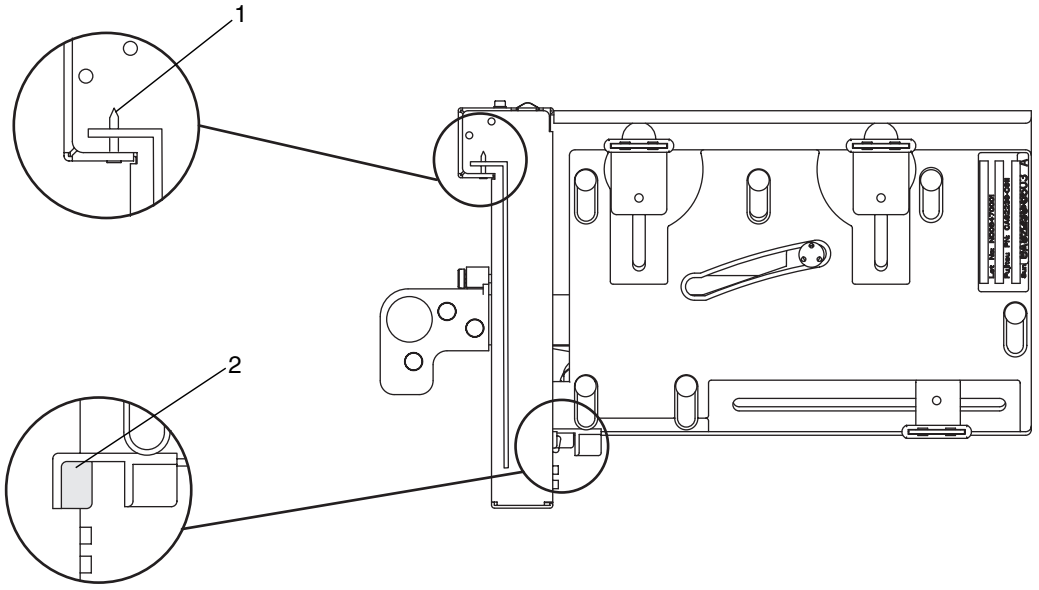


TABLE 13-1 Card positioning post and card positioning tab

Item	Description
1	Card positioning post
2	Card positioning tab

The post (item 1 in FIGURE 13-6) is seated in the notch of the bracket of the PCI card. If the post is not properly seated in the notch, the mounting bracket of the card may be bent and the card may end up being affixed in an inclined position on the PCI cassette. If a card is affixed in an inclined position, it will not be in proper electric contact with the socket on the IOU.

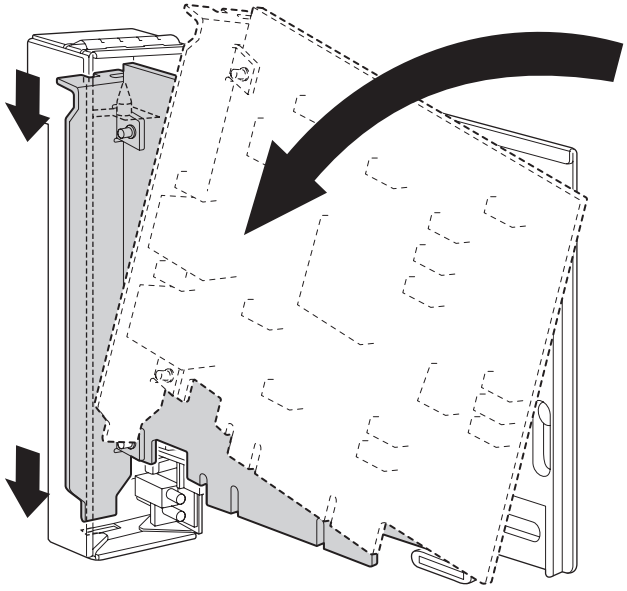
The tab (item 2 in FIGURE 13-6) fits in the notch on the lower part of the PCI card. This tab is helpful in positioning the card when it is mounted on the PCI cassette (however, some types of cards do not have the notch).

Note – When the PCI cassette is removed from the IOU, the tab raises the front of the card from the card connector.

---

a. **Move the PCI card in the direction of the arrow, and mount it on the PCI cassette by inserting the part projecting out at the bottom of the bracket of the PCI card into the hole at the bottom of the front panel of the PCI cassette and inserting the pin of the PCI cassette into the oval hole at the top of the bracket of the PCI card.**

FIGURE 13-7 Mounting the PCI Card



b. **Push the PCI card until the notched part on the base plate of the PCI card touches the card-positioning tab from the PCI cassette.**

Note – When fixing the PCI card in position after aligning it with the card positioning tab, do so while pulling the lever about 2 cm from the frame.

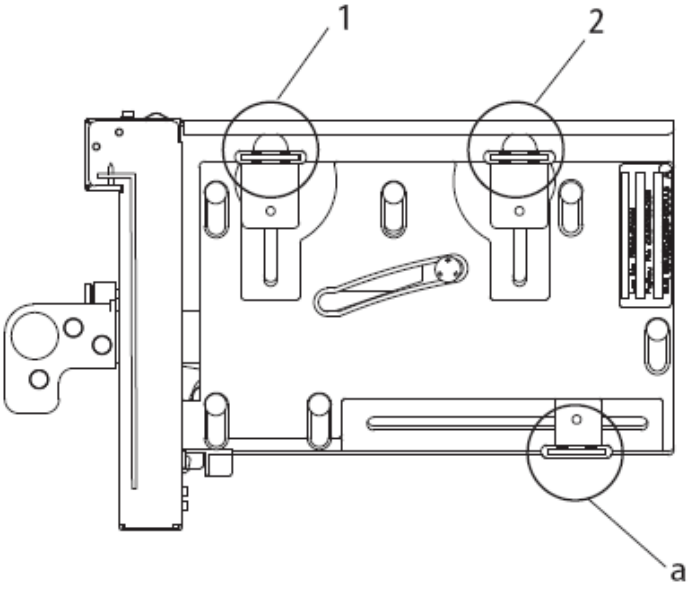
---

c. Align the PCI card with the center part of the lower latch of the cassette. Then, while pressing the PCI card against the center part of each of the upper latches of the cassette, tighten the fixing screws in the sequence shown in FIGURE 13- 8 to fix the card in position.

Note – To ensure that the PCI card is properly mounted, you need to confirm that the PCI card base is properly centered at the latches and securely fastened in position (FIGURE 13-9 reference).

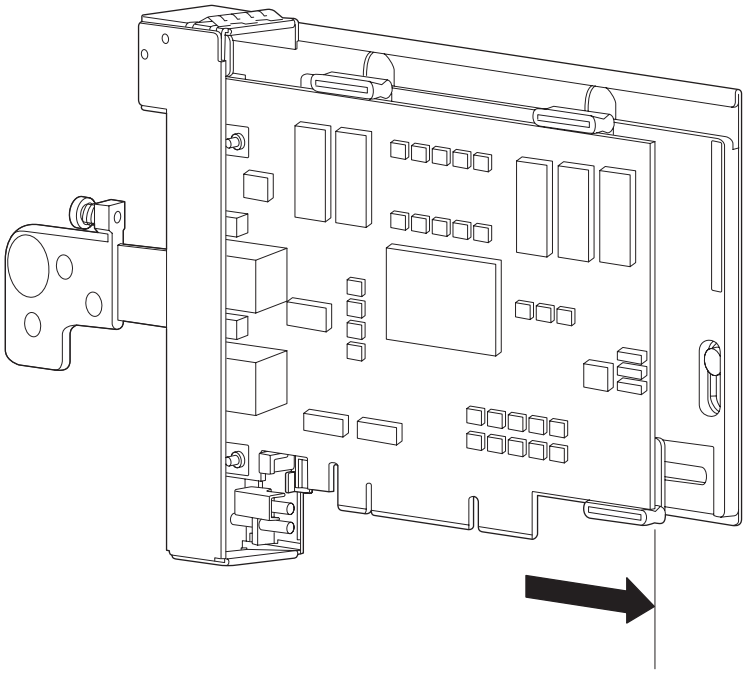
To shift the location of the bottom screw for the PCI card, first secure the card at the lower latch (part a in FIGURE 13-8). Then, tighten the fixing screws in the sequence shown in FIGURE 13-8 to fix the card in position.

FIGURE 13-8 Sequence of Fixing the PCI Card in Position



Caution – If the card is short, move the screw at the bottom of the cassette as required. In such cases, place the latches as close as possible to the far end of the card.

FIGURE 13-9 Latch Positions at the Bottom of the Cassette



Information About Software

This section includes the following sections:

This section describes specific software and firmware issues and workarounds. To obtain patches and to check for availability of new patches that fix these issues, go to:

`http://sunsolve.sun.com`

XCP Issues and Workarounds

TABLE 1 lists XCP issues and possible workarounds.

TABLE 1 XCP Issues and Workarounds *(1 of 2)*

ID	Description	Workaround
6723305	The XSCF Web does not show the correct daylight saving time.	There is no workaround. Use the `showlogs`(8) command to determine time during daylight savings time.

6741770	SNMP trap host configuration changes are not valid until `setsnmp disable` and `setsnmp enable`.	When you have modified the SNMP setting:
		`XSCF> setsnmp disable`
		`XSCF> setsnmp enable`

6756052	The panic log on the XSCF Web might not be displayed from the top of the message.	When the output is insufficient, execute the `showlogs` panic command on the XSCF shell.

TABLE 1 XCP Issues and Workarounds *(2 of 2)*

ID	Description	Workaround
6757614	The network configuration on the XSCF Web does not support the function equivalent to the `setnetwork -r` option. And when you specified localhost or localdomain to the host name or the domain name, the error message "`SessionID has expired`" appears	Use the `setnetwork -r` command on the XSCF shell.
6761674	The first usage of the OBP command `probe-scsi-all` might not show all devices connected via the external SAS port.	Retry the `probe-scsi-all` command.
6765466	The information related to the defined LSB cannot be displayed on the XSCF Web "Domain Configuration" page with an account which has a single domain privilege larger than DID15. In addition, the operation for such LSB by "XSB Config..." button cannot be performed.	Use the `showdcl`(8), `addboard`(8), `deleteboard`(8), and `moveboard`(8) commands on the XSCF shell.
6765468	When the timezone other than three characters has been set, the error logs cannot be displayed on XSCF Web "Error Log" page. In addition, XSCF Web "Panic Log" and "IPL Message Log" pages displays the date on the table with "---".	Use the `showlogs`(8) command on the XSCF shell.
6767612	The monitor message log might not be registered when a PCI slot error detected.	There is no workaround. Use the `showlogs error` command or the `fmdump` command to check the fault information of PCI slot.
6789066	the `showlogs` command results in a segmentation error when the omission name of the set time zone has more than 8 characters.	No workaround is available.
6778132	When using the replacefru(8) command to replace the XSCF unit, the replacement might fail with a DB synchronization timeout error in the log.	Turn off all mainline switches and then turn on again. Or, just after the XSCF reset, using the `rebootxscf`(8) command, execute the `replacefru`(8) command and extract and insert the XSCF unit again. If time passed after the XSCF reset, the `replacefru`(8) command may fail again. In such a case, re-execute the `rebootxscf`(8) command and the subsequent processes.

Solaris OS Issues and Workarounds

This section contains information about Solaris OS issues. TABLE 2, TABLE 4, and TABLE 3 list issues you might encounter, depending upon which Solaris OS release you are using.

Solaris Issues for All Supported Releases

TABLE 2 lists Solaris OS issues that you might encounter in any supported release of Solaris OS.

TABLE 2 Solaris OS Issues and Workarounds for All Supported Releases *(1 of 5)*

CR ID	Description	Workaround
6440061	The domain console may display this message: `ipsec_check_inbound_policy: Policy Failure for the incoming packet (not secure)`	This message can be safely ignored.
6449315	The Solaris OS `cfgadm`(1M) command does not unconfigure a DVD drive from a domain on a M8000/M9000 server.	Disable the Volume Management Daemon (`vold`) before unconfiguring a DVD drive with the `cfgadm`(1M) command. To disable `vold`, stop the daemon by issuing the command `/etc/init.d/volmgt stop`. After the device has been removed or inserted, restart the daemon by issuing the command `/etc/init.d/volmgt start`.
6459540	The DAT72 internal tape drive might time out during tape operations. The device might also be identified by the system as a QIC drive.	Add the following definition to `/kernel/drv/st.conf`: `tape-config-list= "SEAGATE DAT DAT72-000", "SEAGATE_DAT____DAT72-000", "SEAGATE_DAT____DAT72-000"; SEAGATE_DAT____DAT72-000= 1,0x34,0,0x9639,4,0x00,0x8c,0x8c, 0x8c,3;` There are four spaces between `SEAGATE DAT` and `DAT72-000`.

TABLE 2 Solaris OS Issues and Workarounds for All Supported Releases *(2 of 5)*

CR ID	Description	Workaround
6522017	Domains using the ZFS file system cannot use DR.	Set the maximum size of the ZFS ARC lower. For detailed assistance, contact your authorized service representative.
6531036	The error message `network initialization failed` appears repeatedly after a boot net installation.	There is no workaround.
6531668	System hangs when executing parallel hot-plug operation with SP DR in suspend phase.	There is no workaround.

6532215	`volfs` or `dscp` services might fail when a domain is booted.	Restart the service. To avoid the problem, issue the following commands.
		`# svccfg -s dscp setprop start/timeout_seconds=count: 300`
		`# svccfg -s volfs setprop start/timeout_seconds=count: 300`
		`# svcadm refresh dscp`
		`# svcadm refresh volfs`

6535018	In Solaris domains that include SPARC64 VII processors, workloads that make heavy use of the Solaris kernel might not scale as expected when you increase the thread count to a value greater than 256.	This has been fixed in patch 137111-01. For Solaris domains that include SPARC64 VII processors, limit domains to a maximum of 256 threads.

6565553, 6674266	DR `deleteboard`(8) and `moveboard`(8) operations might fail.
	Example for messages on domain:
	`drmach: WARNING: Device driver failure: /pci`
	`dcs: <xxxx> config_change_state: Hardware specific failure: unconfigure SB1: Device driver failure: /pci`
		There is no workaround.
		Try DR operations again.

6572827	The `prtdiag -v` command reports PCI bus types incorrectly. It reports “PCI” for PCI-X leaf devices and “UNKN” for legacy PCI devices.	There is no workaround.
6575970	DR and XSCF failover are not compatible.	
6588555	Resetting the XSCF during a DR operation on permanent memory might cause domain panic.	Do not start an XSCF reset while a DR operation is underway. Wait for the DR operation to complete before starting the reset.
6588650	On occasion, the system is unable to DR after an XSCF failover to or from backup XSCF.	There is no workaround.

TABLE 2 Solaris OS Issues and Workarounds for All Supported Releases *(3 of 5)*

CR ID	Description	Workaround
6589644	When XSCF switchover happens after the SB has been added using the `addboard` command, the console is no longer available.	The console can be recovered by pressing Ctrl-q (the "Ctrl" key and the "q" key).
6592302	Unsuccessful DR operation leaves memory partially configured.	It might be possible to recover by adding the board back to the domain with an `addboard -d` command.
6619224	For Solaris domains that include SPARC 64 VII processors, a single domain of 256 threads or more might hang for an extended period of time under certain unusual situations. Upon recovery, the `uptime` command will show extremely high load averages.	This has been fixed in patch 137111-03. For Solaris domains that include SPARC 64 VII processors, do not exceed a domain size of 256 virtual processors in a single Solaris domain. This means a maximum of 32 CPUs in a single domain configuration (maximum configuration for an M8000 server).
6623226	The Solaris command `lockstat`(1M) or the dtrace lockstat provider might cause a system panic.	This has been fixed in patch 140336-01. [Workaround] Do not use the Solaris `lockstat`(1M) command or the dtrace lockstat provider.
6625734	Systems with large number of processors in a single domain environment may have suboptimal performance with certain workloads.	Use processor sets to bind application processes or LWPs to groups of processors. Refer to the `psrset`(1M) man page for more information.

6660168	If a `ubc.piowbeue-cpu` error occurs on a domain, the Solaris Fault Management cpumem-diagnosis module might fail, causing an interruption in FMA service.
	If this happens, you will see output similar to the following sample in the console log:
		If fmd service fails, issue the following command on the domain to recover:
		`# svcadm clear fmd`
		Then restart cpumem-diagnosis:
		`# fmadm restart cpumem-diagnosis`

TABLE 2 Solaris OS Issues and Workarounds for All Supported Releases *(4 of 5)*

CR ID	Description	Workaround
	SUNW-MSG-ID: FMD-8000-2K, TYPE: Defect, VER: 1, SEVERITY: Minor EVENT-TIME: Fri Apr 4 21:41:57 PDT 2008 PLATFORM: SUNW,SPARC-Enterprise, CSN: 2020642002, HOSTNAME: <hostname> SOURCE: fmd-self-diagnosis, REV: 1.0 EVENT-ID: 6b2e15d7-aa65-6bcc-bcb1-cb03a7dd77e3 DESC: A Solaris Fault Manager component has experienced an error that required the module to be disabled. Refer to http://sun.com/msg/FMD-8000-2K for more information. AUTO-RESPONSE: The module has been disabled. Events destined for the module will be saved for manual diagnosis. IMPACT: Automated diagnosis and response for subsequent events associated with this module will not occur. REC-ACTION: Use fmdump -v -u <EVENT -ID> to locate the module. Use fmadm reset <module> to reset the module.	
6668237	After DIMMs are replaced, the corresponding DIMM faults are not cleared on the domain.	Use the command `fmadm repair` *fmri*|*uuid* to record the repair. Then you can use the command `fmadm rotate` to clear out any leftover events.
6679370	The following message may be output on the console during the system booting, the External I/O Expansion Unit adding by hotplug, or the FMEMA operating by DR. SUNW-MSG-ID: SUN4-8000-75, TYPE: Fault, VER: 1, SEVERITY: Critical ... DESC: A problem was detected in the PCIExpress subsystem. Refer to http://sun.com/msg/SUN4-8000-75 for more information. ...	Add the following to `/etc/system`, then reboot the domain. `set pcie_expected_ce_mask = 0x2001`

TABLE 2 Solaris OS Issues and Workarounds for All Supported Releases *(5 of 5)*

CR ID	Description	Workaround
6680733	Sun Quad-port Gigabit Ethernet Adapter UTP (QGC) & Sun Dual 10 GigE Fiber XFP Low Profile Adapter (XGF) NICs might panic under high load conditions.	This has been fixed in patch 139570-01.
6689757	Sun Dual 10 GigE Fiber XFP Low Profile Adapter (XGF) with a single or improperly installed XFP optical transceivers might cause the following error to show on the console: `The XFP optical transceiver is broken or missing.`	This has been fixed in patch 139570-01. [Workaround] Check and make sure that both XFP optical transceivers are firmly seated in the housing. Do not mix INTEL and Sun XFP optical transceivers in the same Adapter. Do NOT plumb a port with the `ifconfig` command if the port does not contain an XFP optical transceiver or it contains one but the transceiver is not in use.
6707628	Scheduler decisions on Mx000 systems are occasionally unbalanced. Sometimes two threads will be on one core (causing both to run at about half speed) while another core is idle. For many OpenMP and similar parallel applications, the application performance is limited by the speed of the slowest thread. Uneven scheduling is not common, perhaps 1 in 50 or 1 in 100 decisions. But if there are 128 threads running, then the application might have at least one uneven schedule event.	Use processor sets to prevent uneven threads to core assignment.
6723202	The `raidctl` command cannot be used to create a hardware RAID using the onboard SAS/LSI controller on the M3000 server. The `raidctl` command can be used to view disk/controller status, and can be used on any PCI Host Bus Adapter (HBA) installed in the system.	No workaround is available. This issue will not be fixed.
6745410	Boot program ignores the `Kadb` option which causes the system not to boot.	Use `kmdb` instead of `kadb`.
6794630	An attempt to use the GUI to install Solaris in a domain larger than 2TB might fail.	Use the Command Line Interface to install Solaris.

Solaris Issues Fixed in Solaris 10 10/08

TABLE 3 lists issues that have been fixed in Solaris 10 10/08 OS. You might encounter them in supported releases earlier than Solaris 10 10/08.

TABLE 3 Solaris OS Issues and Workarounds Fixed in Solaris 10 10/08 *(1 of 3)*

CR ID	Description	Workaround
6511374	Memory translation warning messages might appear during boot if memory banks were disabled due to excessive errors.	This has been fixed in patch 137137-09. [Workaround] After the system is rebooted, the `fmadm repair` command can be used to prevent a recurrence of the problem on the next boot.

6533686	When XSCF is low on system resources, DR `deleteboard` or `moveboard` operations that relocate permanent memory might fail with one or more of these errors:
	`SCF busy`
	`DR parallel copy timeout`
	This applies only to Quad-XSB configured System Boards hosting multiple domains.
		This has been fixed in patch 138397-01.
		Retry the DR operation at a later time.

6535018	In Solaris domains that include SPARC64 VII processors, workloads that make heavy use of the Solaris kernel might not scale as expected when you increase the thread count to a value greater than 256.	This has been fixed in patch 137111-01. [Workaround: For Solaris domains that include SPARC64 VII processors, limit domains to a maximum of 256 threads.
6556742	The system panics when DiskSuite cannot read the `metadb` during DR. This bug affects the following cards: • SG-XPCIE2FC-QF4, 4-Gigabit PCI-e Dual-Port Fiber Channel HBA • SG-XPCIE1FC-QF4, 4-Gigabit PCI-e Single-Port Fiber Channel HBA • SG-XPCI2FC-QF4, 4-Gigabit PCI-X Dual-Port Fiber Channel HBA • SG-XPCI1FC-QF4, 4-Gigabit PCI-X Single-Port Fiber Channel HBA	Panic can be avoided when a duplicated copy of the `metadb` is accessible via another Host Bus Adaptor.

TABLE 3 Solaris OS Issues and Workarounds Fixed in Solaris 10 10/08 *(2 of 3)*

CR ID	Description	Workaround
6589833	The DR `addboard` command might cause a system hang if you are adding a Sun StorageTek Enterprise Class 4-Gigabit Dual-Port Fiber Channel PCI-E HBA card (SG-XPCIE2FC-QF4) at the same time that an SAP process is attempting to access storage devices attached to this card. The chance of a system hang is increased if the following cards are used for heavy network traffic: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	There is no workaround.
6614737	The DR `deleteboard`(8) and `moveboard`(8) operations might hang if any of the following conditions exist: A DIMM has been degraded. The domain contains system boards with different memory size.	For Solaris 10 5/08 or earlier, this has been fixed in patch 137111-01. Avoid performing DR operations if any of the following conditions exist: • *Degraded memory* – To determine whether the system contains degraded memory, use the XSCF command `showstatus`. For sample output see "Identifying System Memory" on page 18. • *Differing memory sizes* – To determine whether the domain contains system boards with different memory sizes, display the list of memory sizes using the XSCF command `showdevices` or the `prtdiag` command on the domain. For sample output, see "Identifying System Memory" on page 18. If a DR command hangs, reboot the domain to recover.

TABLE 3 Solaris OS Issues and Workarounds Fixed in Solaris 10 10/08 *(3 of 3)*

CR ID	Description	Workaround
6632549	`fmd service` on domain might fail to go into maintenance mode after DR operations.	This has been fixed in patch 138050-01. Issue the following command on the domain: `# svcadm clear fmd`
6660197	DR might cause the domain to hang if either of the following conditions exist: • A domain contains 256 or more CPUs. • Memory error occurred and the DIMM has been degraded.	This has been fixed in patch 138397-01. 1. Set the following parameter in the system specification file (/etc/system): `set drmach:drmach_disable_mcopy = 1` 2. Reboot the domain.
6720261	If your domain is running Solaris 10 5/08 OS, the system might panic/trap during normal operation:	This has been fixed in patch 137137-09. [Workaround: Set the following parameter in the system specification file (`/etc/system`): `set heaplp_use_stlb=0` Then reboot the domain.

Solaris Issues Fixed in Solaris 10 5/08

TABLE 4 lists issues that have been fixed in Solaris 10 5/08 OS. You might encounter them in supported releases earlier than Solaris 10 5/08.

TABLE 4 Solaris OS Issues and Workarounds Fixed in Solaris 10 5/08 *(1 of 4)*

CR ID	Description	Workaround

5076574	A PCIe error can lead to an invalid fault diagnosis on a large M9000/M8000 domain.	Create a file `/etc/fm/fmd/fmd.conf` containing the following lines;
		`setprop client.buflim 40m`
		`setprop client.memlim 40m`

6348554	Using the `cfgadm -c disconnect` command on the following cards might hang the command: • SG-XPCIE2FC-QF4, Sun StorageTek Enterprise Class 4-Gigabit Dual-Port Fiber Channel PCI-E HBA • SG-XPCIE1FC-QF4, Sun StorageTek Enterprise Class 4-Gigabit Single-Port Fiber Channel PCI-E HBA • SG-XPCI2FC-QF4, Sun StorageTek Enterprise Class 4-Gigabit Dual-Port Fiber Channel PCI-X HBA • SG-XPCI1FC-QF4, Sun StorageTek Enterprise Class 4-Gigabit Single-Port Fiber Channel PCI-X HBA	Do not perform `cfgadm -c disconnect` operation on the affected cards.
6472153	If you create a Solaris Flash archive on a non-Sun SPARC Enterprise M4000/M5000 sun4u server and install it on a Sun SPARC Enterprise M4000/M5000 sun4u server, the console's TTY flags will not be set correctly. This can cause the console to lose characters during stress.	For Solaris 10 8/07 or earlier, this has been fixed in patch 137046-01. Just after installing Solaris OS from a Solaris Flash archive, telnet into the Sun SPARC Enterprise M4000/M5000 server to reset the console's TTY flags as follows: # sttydefs -r console # sttydefs -a console -i "9600 hupcl opost onlcr crtscts" -f "9600" This procedure is required only once.

6505921	Correctable error on the system PCIe bus controller generates an invalid fault.	For Solaris 10 8/07 or earlier, this has been fixed in 120011-14 and 125369-05.
		
		Create a file `/etc/fm/fmd/fmd.conf` containing the following lines;
		`setprop client.buflim 40m`
		`setprop client.memlim 40m`

TABLE 4 Solaris OS Issues and Workarounds Fixed in Solaris 10 5/08 *(2 of 4)*

CR ID	Description	Workaround
6522433	The incorrect motherboard might be identified by `fmdump` for cpu faults after reboot.	For Solaris 10 8/07 or earlier, this has been fixed in patch 127127-11. Check system status on XSCF.
6527811	The `showhardconf`(8) command on the XSCF cannot display PCI card information that is installed in the External I/O Expansion Unit, if the External I/O Expansion Unit is configured using PCI hot-plug.	For Solaris 10 8/07 or earlier, this has been fixed in patch 128346-01. There is no workaround. When each PCI card in the External I/O Expansion Unit is configured using PCI hot-plug, the PCI card information is displayed correctly.

6536564	`showlogs`(8) and `showstatus`(8) command might report wrong I/O component.	For Solaris 10 8/07 or earlier, this has been fixed in patch 125369-05.
		To avoid this problem, issue the following commands on the domain.
		`# cd /usr/platform/SUNW,SPARCEnterprise/lib/fm/topo/plugins`
		`# mv ioboard.so ioboard.so.orig`
		`# svcadm restart fmd`
		Contact a service engineer if the following messages are displayed:
		`SUNW-MSG-ID: SUNOS-8000-1L, TYPE: Defect, VER: 1, SEVERITY: Minor`
		`EVENT-TIME: Sun May 6 18:22:24 PDT 2007`
		`PLATFORM: SUNW,SPARC-Enterprise,`
		`CSN: BE80601007, HOSTNAME: sparc`

6545143	There is a low probability that a system panic can occur during trap processing of a TLB miss for a user stack address. The problem can occur if the user stack is unmapped concurrently with the user process executing a flush windows trap (`ta 3`). The panic message will contain the following string: `bad kernel MMU trap at TL 2`	For Solaris 10 8/07 or earlier, this has been fixed in patch 127111-08. There is no workaround.

TABLE 4 Solaris OS Issues and Workarounds Fixed in Solaris 10 5/08 *(3 of 4)*

CR ID	Description	Workaround
6545685	If the system has detected Correctable MemoryErrors (CE) at power-on self-test (POST), the domains might incorrectly degrade 4 or 8 DIMMs.	For Solaris 10 8/07 or earlier, this has been fixed in patch 127111-08. Increase the memory patrol timeout values used via the following setting in `/etc/system` and reboot the system: `set mc-opl:mc_max_rewrite_loop = 20000`
6546188	The system panics when running hot-plug (`cfgadm`) and DR operations (`addboard` and `deleteboard`) on the following cards: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	For Solaris 10 8/07, this has been fixed in patch 127741-01. There is no workaround.
6551356	The system panics when running hot-plug (`cfgadm`) to configure a previously unconfigured card. The message "WARNING: PCI Expansion ROM is not accessible" will be seen on the console shortly before the system panic. The following cards are affected by this defect: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	**For Solaris 10 8/07, this has been fixed in patch 127741-01.** **Note -** Do not use `cfgadm -c unconfigure` to disconnect the I/O card. Use `cfgadm -c disconnect` to completely remove the card. After waiting at least 10 seconds, the card might be configured back into the domain using the `cfgadm -c configure` command.
6559504	Messages of the form `nxge: NOTICE: nxge_ipp_eccue_valid_check: rd_ptr = nnn wr_ptr = nnn` will be observed on the console with the following cards: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	These messages can be safely ignored.
6563785	Hot-plug operation with the following cards might fail if a card is disconnected and then immediately reconnected: • SG-XPCIE2SCSIU320Z Sun StorageTek PCI-E Dual-Port Ultra320 SCSI HBA • SGXPCI2SCSILM320-Z Sun StorageTek PCI Dual-Port Ultra320 SCSI HBA	After disconnecting a card, wait for a few seconds before re-connecting.

TABLE 4 Solaris OS Issues and Workarounds Fixed in Solaris 10 5/08 *(4 of 4)*

CR ID	Description	Workaround
6564934	Performing a DR `deleteboard` operation on a board which includes Permanent Memory when using the following network cards results in broken connections: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	For Solaris 10 8/07, this has been fixed in patch 127741-01. Reconfigure the affected network interfaces after the completion of the DR operation. For basic network configuration procedures, refer to the `ifconfig` man page for more information.
6568417	After a successful CPU DR `deleteboard` operation, the system panics when the following network interfaces are in use: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	For Solaris 10 8/07 or earlier, this has been fixed in patch 127111-02. Add the following line to `/etc/system` and reboot the system: `set ip:ip_soft_rings_cnt=0`
6571370	Use of the following cards have been observed to cause data corruption in stress test under laboratory conditions: • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter	For Solaris 10 8/07, this has been fixed in patch 127741-01. Add the following line in `/etc/system` and reboot the system: `set nxge:nxge_rx_threshold_hi=0`
6584984	The `busstat`(1M) command with `-w` option might cause domains to reboot.	There is no workaround. Do not use `busstat`(1M) command with `-w` option on pcmu_p.
6589546	`prtdiag` does not show all IO devices of the following cards: • SG-XPCIE2FC-EM4 Sun StorageTek Enterprise Class 4-Gigabit Dual-Port Fiber Channel PCI-E HBA • SG-XPCIE1FC-EM4 Sun StorageTek Enterprise Class 4-Gigabit Single-Port Fiber Channel PCI-E HBA	For Solaris 10 8/07 or earlier, this has been fixed in patch 127127-11. Use `prtdiag -v` for full output.

Solaris Issues Fixed in Solaris 10 8/07

TABLE 5 lists issues that have been fixed in Solaris 10 8/07 OS. You might encounter them in Solaris 10 11/06.

Caution – ICR ID #6534471: Improper handling of large page in kernel memory may cause random panics. Implement the workaround for CR ID #6534471 or check for the availability of a patch and install it immediately. This bug has been fixed by 125100-06 and Solaris 10 8/07.

TABLE 5 Solaris OS Issues and Workarounds Fixed in Solaris 10 8/07 *(1 of 4)*

CR ID	Description	Workaround
6303418	M9000 server with a single domain and 11 or more fully populated system boards might hang under heavy stress.	Do not exceed 170 CPU threads. Limit the number of CPU threads to one per CPU core by using the Solaris `psradm` command to disable the excess CPU threads. For example, disable all odd-numbered CPU threads.
6416224	System performance can degrade using a single NIC card with more than 5,000 connections.	For Solaris 10 11/06, this has been fixed in patch 120011-08. Use multiple NIC cards to split network connections.
6441349	I/O error can hang the system.	For Solaris 10 11/06, this has been fixed in patch 120011-07. There is no workaround.
6485555	On-board Gigabit Ethernet NVRAM corruption could occur due to a race condition. The window of opportunity for this race condition is very small.	For Solaris 10 11/06, this has been fixed in patch 120011-08. There is no workaround.

TABLE 5 Solaris OS Issues and Workarounds Fixed in Solaris 10 8/07 *(2 of 4)*

CR ID	Description	Workaround

6496337	The "cpumem-diagnosis" module may fail to load after uncorrectable error(UE) panic. Systems will function correctly but events normally automatically diagnosed by FMA using this module will require manual diagnosis.
	Example:
	`SUNW-MSG-ID: FMD-8000-2K, TYPE: Defect, VER: 1, SEVERITY: Minor`
	`EVENT-TIME: Thu Feb 15 15:46:57 JST 2007`
	`PLATFORM: SUNW,SPARC-Enterprise, CSN: BE80601007, HOSTNAME: col2-ffem7-d0`
		For Solaris 10 11/06, this has been fixed in patch 125369-05.
		
		If the problem has already occurred, use this workaround:
		1. Remove the `cpumemdiagnosis` file:
		`# rm /var/fm/fmd/ckpt/cpumemdiagnosis/cpumem-diagnosis`
		2. Restart `fmd service`:
		# svcadm restart fmd
		
		To avoid this problem in advance, add "`rm -f /var/fm/fmd/ckpt/cpumemdiagnosis/cpumem-diagnosis`" in the `/lib/svc/method/svc-dumpadm` file as below.
		`#`
		`savedev=none`
		`rm -f /var/fm/fmd/ckpt/cpumemdiagnosis/cpumem-diagnosis`
		`#`

6495303	The use of a PCIe Dual-Port Ultra320 SCSI controller card (SG-(X)PCIE2SCSIU320Z) in IOU Slot 1 on a Sun SPARC Enterprise M4000/M5000 server might result in a system panic.	Do not use this card in IOU Slot 1.
6498283	Using the DR `deleteboard` command while `psradm` operations are running on a domain might cause a system panic.	There is no workaround.

6499304	Unexpected message is displayed on console and CPU isn't offlined when numerous correctable error(CE) occur.
	Example:
	`SUNW-MSG-ID: FMD-8000-11, TYPE: Defect, VER: 1, SEVERITY: Minor`
	`EVENT-TIME: Fri Feb 2 18:31:07 JST 2007`
	`PLATFORM: SPARC-Enterprise, CSN: BE80601035, HOSTNAME: FF2-35-0`
		For Solaris 10 11/06, this has been fixed in patch 125369-05.
		
		Check CPU status on XSCF.

TABLE 5 Solaris OS Issues and Workarounds Fixed in Solaris 10 8/07 *(3 of 4)*

CR ID	Description	Workaround
6502204	Unexpected error messages may be displayed on console on booting after CPU UE panic. Example: `SUNW-MSG-ID: FMD-8000-11, TYPE: Defect, VER: 1, SEVERITY: Minor EVENT-TIME: Tue Jan 9 20:45:08 JST 2007 PLATFORM: SUNW,SPARC-Enterprise, CSN: 2030636002, HOSTNAME: P2-DC1-16-d0`	For Solaris 10 11/06, this has been fixed in patch 125369-05. If you see unexpected messages, use the `showdomainstatus`(8) command to check system status on XSCF.
6502750	Inserted or removed hotplugged PCI card may not output notification message.	For Solaris 10 11/06, this has been fixed in patch 120011-08. There is no workaround.
6508432	A large number of spurious PCIe correctable errors can be recorded in the FMA error log.	For Solaris 10 11/06, this has been fixed in patch 120011-08. To mask these errors, add the following entry to `/etc/system` and reboot the system: `set pcie:pcie_aer_ce_mask = 0x2001`
6508434	The domain may panic when an additional PCI-X card is installed or a PCI-X card is replaced using PCI hot-plug.	For Solaris 10 11/06, this has been fixed in patch 120011-08. Do not insert a different type of PCI-X card on the same PCI slot by using PCI hot-plug.
6510861	When using the PCIe Dual-Port Ultra320 SCSI controller card (SG-(X)PCIE2SCSIU320Z), a PCIe correctable error causes a Solaris panic.	For Solaris 10 11/06, this has been fixed in patch 120011-08. Add the following entry to `/etc/system` to prevent the problem: `set pcie:pcie_aer_ce_mask = 0x31c1`
6520990	When a domain reboots, SCF might not be able to service other domains that share the same physical board. DR operation can exceed the default timeout period and panic can occur.	Increase the DR timeout period by setting the following statement in `/etc/system` and reboot your system.: `set drmach:fmem_timeout = 30`
6527781	The `cfgadm` command fails while moving the DVD/DAT drive between two domains.	There is no workaround. To reconfigure DVD/Tape drive, execute `reboot -r` from the domain exhibiting the problem.

TABLE 5 Solaris OS Issues and Workarounds Fixed in Solaris 10 8/07 *(4 of 4)*

CR ID	Description	Workaround
6530178	DR `addboard` command can hang. Once the problem is observed, further DR operations are blocked. Recovery requires reboot of the domain.	For Solaris 10 11/06, this has been fixed in patch 120011-07. There is no workaround.
6530288	`cfgadm`(1M) command may not correctly show Ap_Id format.	For Solaris 10 11/06, this has been fixed in patch 120011-07. There is no workaround.
6534471	Systems might panic/trap during normal operation.	This bug has been fixed in Solaris 10 8/07. Check for the availability of a patch for this bug. If a patch is not available, disable the kernel large page sTLB programming. In the file `/etc/system`, change the `heaplp_use_stlb` variable to 0: `set heaplp_use_stlb=0`
6535564	PCI hot-plug to PCI slot #0, #1 or External I/O Expansion Unit may fail on XSB added by DR.	For Solaris 10 11/06, this has been fixed in patch 120011-08. Use DR instead of PCI hot-plug if need to add or remove PCI card on the XSB.
6539084	There is a low probability of a domain panic during reboot when the Sun Quad GbE UTP x8 PCIe (X4447A-Z) card is present in a domain.	A fix is available in patch 125670-01.
6539909	Do not use the following I/O cards for network access when you are using the `boot net install` command to install the Solaris OS: • X4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z/X1027A-Z, PCIe Dual 10 Gigabit Ethernet Fiber XFP	Use an alternative type of network card or onboard network device to install the Solaris OS via the network.
6542632	Memory leak in PCIe module if driver attach fails.	For Solaris 10 11/06, this has been fixed in patch 120011-09. There is no workaround.

Documentation Updates

This section contains late-breaking information that became known after the documentation set was published.

The corrections for *Sun SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF Reference Manual* applies to the manual only, the XSCF man page is correct.

TABLE 6 lists known documentation corrections.

TABLE 6 Documentation Corrections *(1 of 2)*

Document	Issue	Change
SPARC Enterprise M3000/M4000/M5000/ M8000/M9000 Servers XSCF User's Guide	page 2-34	The description, "When you set the lockout time to 0 minutes to disable the account lockout function, the success of the first login with any user account will disable the function, whereas the failure of the first login will not disable the function. To disable the account lockout function you must set 0 minutes again.", will be changed as follows: "setloginlockout -s 0 will disable the account lockout. When the account lockout is disabled, a user can attempt to login, and fail, an unlimited number of times. If a user needs to access their locked account before the lockout time is complete they must get an administrator to disable the account lockout to allow them to login and then re-enable the lockout by setting a lockout time."
SPARC Enterprise M3000/M4000/M5000/ M8000/M9000 Servers XSCF User's Guide	page 3-4	The description, "The domain console is not forcibly logged out.", will be changed as follows: "When you return to XSCF shell console without logging out from the domain, the return causes automatically logging out from the domain. For detailed instructions on setting the session timeout value for domain console, see the Solaris OS manual."
Sun SPARC Enterprise M3000/M4000/M5000/ M8000/M9000 Servers XSCF Reference Manual		New commands, the `setloginlockout`(8) and the `showloginlockout`(8) do not appear in the Reference Manual. For details, refer to the man pages.

TABLE 6 Documentation Corrections *(2 of 2)*

Document	Issue	Change
Sun SPARC Enterprise M3000/M4000/M5000/ M8000/M9000 Servers XSCF Reference Manual	`setssh`(8) command	The following new option does not appear in the manual: -m dscp=mode For details, refer to the `setssh` man page.
Sun SPARC Enterprise M3000/M4000/M5000/ M8000/M9000 Servers XSCF Reference Manual	`showenvironment`(8) command	The -power option does not appear in the manual. For details, refer to the `showenvironment` man pages.
Sun SPARC Enterprise M3000/M4000/M5000/ M8000/M9000 Servers XSCF Reference Manual	`showssh`(8) command	The description of displaying the current settings of the SSH does not appear in the manual. For details, refer to the `showssh` man pages.
Sun SPARC Enterprise M3000/M4000/M5000/ M8000/M9000 Servers XSCF Reference Manual	`traceroute`(8) command	The following description appears under Privileges but is incorrect: • To execute the command to DSCP address: `fieldeng` The following description should appear under OPERANDS but does not: When used to specify DSCP address to host, an error occurs.