



SPARC® Enterprise M4000/M5000 Servers Product Notes

For XCP Version 1080

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Preface

These product notes contain late-breaking information about the SPARC® Enterprise M4000/M5000 servers hardware, software, or 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 SPARC Enterprise M4000/M5000 servers documentation, contact a sales representative or a certified service engineer.

Software Resources

The Solaris™ Operating System and Sun Java™ Enterprise System software are preinstalled on your SPARC Enterprise M4000/M5000 servers.

Contact a sales representative or a certified service engineer for software resources for your SPARC Enterprise M4000/M5000 servers.

Note – For latest patch information go to:

Global Site

<http://www.fujitsu.com/global/support/software/security/products-s/patch-info/>

Japanese Site

<https://software.fujitsu.com/jp/security/products-others/unix/>

North American Site

<https://download.computers.us.fujitsu.com/>

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

Accessing Documentation

Instructions for installing, administering, and using your SPARC Enterprise M4000/M5000 servers are provided in the SPARC Enterprise M4000/M5000 servers documentation set.

The documentation set is available for download from the following website:

Global Site

<http://www.fujitsu.com/sparcenterprise/manual/>

Japanese Site

<http://primeserver.fujitsu.com/sparcenterprise/manual/>

North American Site

<https://download.computers.us.fujitsu.com/>

Note – Information in these product notes supersedes the information in the SPARC Enterprise M4000/M5000 servers documentation set.

Solaris documentation is available at:

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

Fujitsu Welcomes Your Comments

If you have any comments or requests regarding this document, or if you find any unclear statements in the document, please state your points specifically on the form at the following URL.

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http://www.computers.us.fujitsu.com/www/support_servers.shtml?support/servers

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http://www.fujitsu.com/global/contact/computing/sparce_index.html

General Information About XCP 1080

This section describes the general information about XCP 1080.

- [What's New in XCP 1080](#)
- [Supported Firmware and Software](#)
- [Updating to XCP 1071 or later](#)
- [Functionality Issues and Limitations](#)

What's New in XCP 1080

In XCP version 1080, the following new feature is introduced:

- The following new XSCF commands are supported:
 - `dumpconfig(8)`
 - `ping(8)`
 - `restoreconfig(8)`
 - `traceroute(8)`

For detail, see the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF Reference Manual* or the manual pages for each command.

Supported Firmware and Software

The following firmware and operating system (OS) are supported in this release.

TABLE 1 Firmware and Operating System Versions

Firmware and Operating System	Version
XSCF Control Package (XCP)	1080
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

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 or later installation DVD to boot a domain mounted with the SPARC64 VII processors.

You can download the latest files of firmware at the following websites.

Global Site:

<http://www.fujitsu.com/sparcenterprise/firmware/>

Japanese Site:

<http://primeserver.fujitsu.com/sparcenterprise/download/firmware/>

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
Microsoft® Internet Explorer	6.0 and 7.0
Netscape Navigator™	7.x
Firefox (Solaris 10)	2.0

Solaris Patch Information

This section lists mandatory patches for the SPARC Enterprise M4000/M5000 servers.

For additional Solaris OS information see [“Solaris OS Issues and Workarounds” on page 12](#).

Note – See [“Software Resources” on page ix](#) for information on how to find the latest patches. Installation information and README files are included in the patch download.

Note – Apply the patches in the following order. For the procedures of CPU upgrade including the patches, see [“CPU Upgrade” on page 34](#).

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 M4000/M5000 servers running Solaris 10 5/08 OS:

- 137137-09

Patches for Solaris 10 8/07

The following patches are required for Solaris 10 8/07 OS only on servers containing SPARC64 VII processors:

- 119254-51 or later
- 125891-01 or later
- 127755-01 or later
- 127127-11

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:

- 118833-36 (Install 118833-36 before 125100-04.)
- 125100-04 or later
- 120068-03 or later
- 123839-07 or later
- 125424-01 or later
- 125075-01 or later
- 125670-02 or later

Patches for Emulex PCI Express (PCIe) Cards

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

- XSEFC402AF Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA
- XSEFC401AF Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-E HBA

Updating to XCP 1071 or later

You can upgrade to XCP 1071 or later from XCP version 1050 or higher. Refer to the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide* for instructions.

Resetting the XSCF Firmware

After updating the XCP firmware to 1071 or later, do not fail to reset the XSCF by using the `rebootxscf(8)` command.

Updating from a Version Earlier Than XCP 1050

- You cannot update to XCP 1071 or later directly. 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 1071 or later. Refer to the product notes document for the interim version for instructions.

- Delete any accounts named "admin".
Any accounts named admin must be deleted prior to updating to XCP 1050 or later. This account name is reserved in XCP 1050 and higher. Use the `deleteuser(8)` command to delete the account.

Functionality Issues and Limitations

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

Limitations for SPARC64 VII Processors



Caution – You must complete the upgrades to the XCP firmware and to 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 12.

- Domains using the ZFS file system cannot use Dynamic Reconfiguration.
- SPARC Enterprise M4000/M5000 servers are cold service machines. Hot-swapping of the CPU module (CPUM), memory board (MEMB), I/O unit (IOU), or XSCF unit is not supported.
- For this XCP release, the XSCF browser user interface (XSCF Web) does not support the External I/O Expansion Unit Manager feature.
- At this time XSCF does not support the Log Archiving feature.
- At this time XSCF does not support the login lockout feature (`setloginlockout(8)` / `showloginlockout(8)`).
- When using XSCF as the NTP server of the domain, configure it so as not to block the ICMP protocol of the DNS server and the NTP server which the XSCF refers to.
- 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).
- 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.
- For 4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP cards, these maximum limits apply:
 - No more than four cards in an External I/O Expansion Unit (two per PCIe I/O boat).
 - No more than four cards in a Sun SPARC Enterprise M4000 server domain.
 - No more than eight cards in a Sun SPARC Enterprise M5000 server domain.
- We recommend the domain to use the XSCF Unit as NTP server. In this case, pay attention to the following points:
 - XSCF must be connected to an external NTP server
 - When you connect one or more NTP servers in addition to XSCF, connect the same NTP server as XSCF is using

For details on NTP server, contact a service engineer. For details on NTP settings, refer to the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

- 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.
- The Firefox 3 is not supported in XSCF Web.
- To use XSCF Web, disable the cache function of your browser. If you leave the browser cache function enabled, the old cached data might be displayed. To disable the cache function:
 - Internet Explorer 6 and 7
[Tools] -> [Internet Options...] -> [Advanced] tab and check the "Do not save encrypted pages to disk" box.
 - Netscape 7.1 or later
[Edit] -> [Preferences] -> [Advanced] -> [Cache] -> [Compare the page in the cache to the page on the network] setting and select the "Every time I view the page" radio button.
 - Firefox 2
Type "about:config" in address box, then type "cache" in filter box. Change the "browser.cache.check_doc_frequency" settings value to "1."

- Using the XSCF Web, when you import XCP or update the firmware, Session ID error may be displayed on the web browser. And in the Autologout setting, when you specify the timeout period as over 30 minutes, Internal Server Error might be displayed when you perform the firmware update. Please close the current browser and open the new browser to reconnect to XSCF Web.
- When you use the XSCF Web, if a plug-in such as the search tool installed with the browser, remove the plug-in or disable the pop-up blocking.
- XSCF-LAN is compliant with auto-negotiation. When you connect XSCF-LAN and the network device which has been fixed to the full-duplex mode, according to the IEEE 802.3 rule, XSCF-LAN communicates in the half-duplex mode. Due to this, network communication speed may slow down or communication error may occur. Do not fail to set the network device which connects with XSCF-LAN to the auto-negotiation mode.
- While you are performing DR operation to a COD board, do not execute the `addcodlicense(8)/deletecodlicense(8)/setcod(8)` command.
- At this time the `restoredefaults(8)` command is not supported.
- If your domain is running one of the following versions of Solaris OS:
 - Solaris 10 5/08 OS
 - An earlier version of Solaris 10 OS with patch ID 127127-11

Then you must set the following parameter in the system specification file (`/etc/system`):

```
set heaplp_use_stlb=0
```

Then reboot the domain.

For more information, refer to CR 6720261 in [TABLE 5](#).

Information About Hardware

This section describes the special instructions and the issues about the SPARC Enterprise M4000/M5000 servers hardware.

- [Notes on DVD Drives and Discs](#)
- [Notes on the use of USB memory](#)
- [Notes on Power-On After Power-Off](#)
- [Hardware Issues and Workarounds](#)

Notes on DVD Drives and Discs

See the "*Notes on DVD Drives and Discs in SPARC Enterprise*" on the website below before using the CD/DVD discs in the standard DVD drive mounted in this server.

URL:

<http://primeserver.fujitsu.com/sparcenterprise/manual/>

Notes on the use of USB memory

To execute the `dumpconfig(8)`, `restoreconfig(8)` or `snapshot(8)` command, if you specify USB memory as the destination to store data, prepare the USB memory as a medium in advance.

The data stored will include the information about the system. To use USB memory, you need to pay attention to the management of the USB memory in which the data stored, from the data security viewpoint.

We do not provide guarantees to every USB memory from any manufacturers that currently on the market against its connectivity to XSCF and proper operation. Depending on the USB memory in use, defects such as the XSCF firmware error or reset may occur. In case such defects occurred, stop the use of USB memory immediately.

To connect the USB memory to the USB port for XSCF, connect the USB memory directly to the USB port. If connected via USB hub or USB extension cables, it may cause errors.

Notes on Power-On After Power-Off

Please wait at least 30 seconds before turning on the system power that you turned off, by pulling out the power cable or using the circuit breakers on the distribution panel.

Hardware Issues and Workarounds

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 M4000/M5000 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.

Information About Software

This section describes the special instructions and the issues about the SPARC Enterprise M4000/M5000 servers software.

- [XCP Issues and Workarounds](#)
- [Solaris OS Issues and Workarounds](#)
- [Software Documentation Updates](#)
- [Identifying Degraded Memory in a System](#)
- [Identifying Different Memory Sizes in a System Board](#)
- [Identifying Permanent Memory in a Target Board](#)
- [CPU Upgrade](#)

XCP Issues and Workarounds

[TABLE 3](#) lists known XCP issues and possible workarounds.

TABLE 3 XCP Issues and Workarounds

ID	Description	Workaround
RTIF1-070418-009	While XSCF is running, a process may go down, a watchdog timeout may occur, or a hang-up may occur. After this, XSCF may reset.	Check that XSCF is started. If not started, stop all the domains and then execute the system power off/on (AC OFF/ON). To turn on the system power that you turned off, wait at least 30 seconds before power-on.
RTIF1-070528-002	While XSCF is running, watchdog timeout may occur and XSCF may reboot.	Check that XSCF is started. If not started, stop all the domains and then execute the system power off/on (AC OFF/ON). To turn on the system power that you turned off, wait at least 30 seconds before power-on.

TABLE 3 XCP Issues and Workarounds (Continued)

ID	Description	Workaround
RTIF1-071102-002	The snmp daemon might quit.	To restart the snmp daemon, issue the command <code>setsnmp enable</code> .
RTIF1-080725-001	In <code>setsnmp adv3traphost</code> , when the authentication failed due to the reasons such as the trap host not working, or the wrong user name or password, the subsequent SNMP traps will not be notified.	No workaround is available. Confirm that the SNMP trap host is working and re-execute the <code>setsnmp(8)</code> command using the correct user name.
RTIF1-080725-002	When the SNMPv3 trap has been set, after the watchdog timeout occurred in XSCF and XSCF reset, the subsequent SNMP traps will not be notified.	Reset the XSCF.
RTIF1-080725-004	After set the Daylight Saving Time by using the XSCF shell, XSCF Web does not show the correct time in the Logs menu.	No workaround is available. Use the <code>showlogs(8)</code> command of the XSCF shell.
RTIF1-081006-001	The error log "XSCF FMEM write error" recorded and the firmware update might fail.	Power off (AC OFF) the system, and power on (AC ON) again. Then, re-execute the firmware update.
RTIF1-081006-002	In the <code>setemailreport(8)</code> command, when you specified over 255 characters in the SMTP address, an error results.	Do not specify over 255 characters in the SMTP address.
RTIF1-081006-004	During the firmware update, there might be the following output message and a XSCF panic might occur. <code>kernel BUG in jffs2_do_read_inode at fs/jffs2/readinode.c:XXX!</code>	Reset XSCF and use the <code>flashupdate(8)</code> command to retry the firmware update.
RTIF1-081006-005	The network configuration on the XSCF Web does not support the function equivalent to the <code>setnetwork -r</code> comand. And when you specified localhost or localdomain to the host name or the domain name, the error message "SessionID has expired" appears.	Use the <code>setnetwork -r</code> command on the XSCF shell.
RTIF1-081006-006	The panic log on the XSCF Web might not be displayed from the top of the message.	When the output is insufficient, execute the <code>showlogs panic</code> command on the XSCF shell.
RTIF1-081006-007	The <code>password(8)</code> command indicates that the <code>[user]</code> operand is optional but will fail if a <code>[user]</code> operand is not included when other options are specified.	No workaround is available. Specify the <code>user</code> operand to execute the <code>password(8)</code> command when you specify other options.
RTIF1-081006-011	SNMP trap host configuration changes are not valid until <code>setsnmp disable</code> and <code>setsnmp enable</code> .	Modify the SNMP setting: XSCF> <code>setsnmp disable</code> XSCF> <code>setsnmp enable</code>

TABLE 3 XCP Issues and Workarounds (*Continued*)

ID	Description	Workaround
RTIF1-081016-001	Power failure at the commercial AC supply connector to the UPS does not send notification/send trap.	No workaround is available.
RTIF1-081016-003	In Internet Explorer 6 or 7, clicking on the [Reset] button then the [OK] button from the Settings->Audit->Add Policy popup screen will log the user out with message: Error Session Error Session ID has been expired	Log back into the browser interface and use the backspace key to clear text in the 'User' text box of the popup screen instead of using the Reset button.

Solaris OS Issues and Workarounds

This section contains information about Solaris OS issues. [TABLE 4](#), [TABLE 5](#), [TABLE 6](#) and [TABLE 7](#) list issues you might encounter, depending upon which Solaris OS release you are using.

Solaris OS Issues for All Supported Releases

TABLE 4 lists Solaris OS issues that you might encounter in any supported release of Solaris OS.

TABLE 4 Solaris OS Issues and Workarounds for All Supported Releases

CR ID	Description	Workaround
6459540	The DAT72 internal tape drive on SPARC Enterprise M4000/M5000 may time out during tape operations.	<p>Add the following definition to <code>/kernel/drv/st.conf</code>:</p> <pre>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;</pre> <p>There are four spaces between SEAGATE DAT and DAT72-000.</p>
6466617	Performing a hot plug operation with the PCI-Express slot too quickly interrupts a PCI leaf reset and occurs the following error: <code>cfgadm: Component system is busy error</code>	Pause a few seconds between the issue of each <code>cfgadm -c</code> command.
6481002	Installing the Solaris from the network using certain PCI-Express cards may cause a panic.	If you are using a Sun PCI-E Dual Gigabit Ethernet Adapter MMF card or a Sun PCI-E Dual Gigabit Ethernet Adapter UTP card, do not install the Solaris using either of these cards. Instead, use other network devices, such as the onboard Gigabit Ethernet or another network device.

TABLE 4 Solaris OS Issues and Workarounds for All Supported Releases (*Continued*)

CR ID	Description	Workaround
6515648	"Replumb Failed" error appears when <code>dr@0:SB1::memory</code> fails.	Once the DR operation is complete, it can be plumbed up manually. Example steps to re-plumb the interface manually: <pre># ifconfig interface plumb xxx.xxx.xxx.xxx netmask + broadcast + up # ifconfig interface group group-name # ifconfig interface addif xxx.xxx.xxx.xxx -failover deprecated up</pre> <p>This workaround assumes that the <code>/etc/hostname.interface</code> file is correctly configured for the IPMP group and does not need any modification. The IP addresses used in the example above should match what was previously used and what matches the <code>/etc/hostname.<interface></code> file.</p>
6516135	Ap_Id format and devices may not be shown correctly by <code>cfgadm(1M)</code> .	Use the following operations to display all of the PCI slots. 1) <code>devfsadm</code> (at Solaris prompt) 2) <code>cfgadm</code>
6519290	Large amounts of I/O on swap devices can cause the system to appear hung by overwhelming the I/O system. The amount of I/O required can be generated through a number of ways, eg memory shortage, heavy use of <code>/tmp</code> etc.	Set the following to <code>/etc/system</code> and then reboot the domain: <pre>set maxfastscan=0x2000</pre>
6522017	DR and ZFS may not be used in the same domain.	Reduce the amount of kernel memory that ZFS can allocate by setting the <code>zfs_arc_max</code> parameter in the <code>/etc/system</code> file. The following example sets the maximum size to 512 Mbytes. <pre>set zfs_arc_max = 0x20000000</pre>
6529714	Warning messages occur while trying to configure more than four X4447A-Z or X1027A-Z1 cards into one I/O Boat.	No workaround is available.
6530753	Some of the PCI slots in the External I/O Expansion Unit PCI slots are not displayed during a normal boot operation.	Use one of the following operations to display all of the PCI slots. <ul style="list-style-type: none">• <code>boot -r</code> (at open boot prompt)• <code>devfsadm -C</code> (at Solaris prompt)• <code>cfgadm</code> (twice at Solaris prompt)

TABLE 4 Solaris OS Issues and Workarounds for All Supported Releases (*Continued*)

CR ID	Description	Workaround
6531036	The error message network initialization failed can appear repeatedly after boot net installation.	No workaround is available. This message can be safely ignored.
6531668	System hangs when executing parallel hot plug operation with SP DR in suspend phase.	No workaround is available.
6532215	volfs or dscp service may fail when domain is booted. svc:/platform/sun4u/dscp:default: Method "/lib/svc/method/svc-dscp start" failed with exit status 95. svc:/system/filesystem/volfs:default: Method or service exit timed out. Killing contract 59.	Restart the service if the failure is observed. 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
6537511	Bluetooth partner is hung during security tests execution	Restart application server
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	No workaround is available. 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.	No workaround is available.
6588555	XSCF reset during DR operation to the permanent memory might cause domain panic.	Do not start an XSCF reset while a DR operation is running. Wait for a DR operation to finish before starting the reset.
6592302	Unsuccessful DR operation leaves memory partially configured.	Try deleteboard(8) again.
6608404	Hot-plug of the X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP card in slot 1 might cause other network devices to fail.	To avoid the defect, do not install this card in slot 1.

TABLE 4 Solaris OS Issues and Workarounds for All Supported Releases (*Continued*)

CR ID	Description	Workaround
6619344	The Sun Crypto Accelerator (SCA) 6000 card might not work if hot-plug configured into slot 1.	To avoid the defect, do not hot-plug this card in slot 1.
6623226	The Solaris command <code>lockstat(1M)</code> or the <code>dtrace lockstat</code> provider might cause a system panic.	Do not use the Solaris <code>lockstat(1M)</code> command or the <code>dtrace lockstat</code> 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 <code>psrset(1M)</code> man page for more information.

TABLE 4 Solaris OS Issues and Workarounds for All Supported Releases (*Continued*)

CR ID	Description	Workaround
6660168	<p>If a <code>ubc.piowbeue-cpu</code> error occurs on a domain, the Solaris Fault Management <code>cpumem-diagnosis</code> module might fail, causing an interruption in FMA service.</p> <p>If this happens, you will see the following output in the console log:</p> <pre>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 <code>fmdump -v -u <EVENT-ID></code> to locate the module. Use <code>fmadm reset <module></code> to reset the module.</pre>	<p>If FMA service fails, issue the following command on the domain to recover:</p> <pre># svcadm clear fmd</pre> <p>Then restart <code>cpumem-diagnosis</code>:</p> <pre># fmadm restart cpumem-diagnosis</pre>
6668237	<p>After DIMMs are replaced the corresponding DIMM faults are not cleared on the domain.</p>	<p>Use the following commands:</p> <pre># fmadm repair <i>fnri uuid</i> # fmadm rotate</pre>
6680733	<p>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.</p>	<p>Check for the availability of a patch for this defect.</p>

TABLE 4 Solaris OS Issues and Workarounds for All Supported Releases (*Continued*)

CR ID	Description	Workaround
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.	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.
6745410	Boot program ignoresthe Kadb option which causes the system not to boot.	Use kmdb instead of kadb.

Solaris OS Issues Fixed in Solaris 10 10/08

[TABLE 5](#) 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 5 Solaris OS Issues Fixed in Solaris 10 10/08

CR ID	Description	Workaround
6511374	Unexpected error messages may be displayed on console after changing the system configuration. Example: WARNING: Translation error source /LSB0/B0/0, PA 3c000000000, target /LSB0/B0/20000000	This message can be safely ignored.
6533686	When XSCF is low on system resources, DR operations involving relocating permanent memory, such as deleteboard(8) or moveboard(8), might fail with one or more of these errors: SCF busy DR parellel copy timeout This applies only to Quad-XSB configured system boards hosting multiple domains.	This has been fixed in patch 138397-01. [Workaround] Retry the DR operation at a later time.

TABLE 5 Solaris OS Issues Fixed in Solaris 10 10/08 (Continued)

CR ID	Description	Workaround
6614737	<p>The DR deleteboard(8) and moveboard(8) operations might hang if any of the following conditions exist:</p> <ul style="list-style-type: none"> • A DIMM has been degraded. • The domain contains system boards with different memory size. 	<p>For Solaris 10 5/08 or earlier, this has been in patch 137111-01.</p> <p>[Workaround]</p> <p>Avoid performing DR operations if any of the listed conditions exist.</p> <p>To determine whether the system contains degraded memory, use the XSCF showstatus(8) command. For sample output, see “Identifying Permanent Memory in a Target Board” on page 33.</p> <p>To determine whether the domain contains system boards with different memory sizes, display the list of memory sizes using the XSCF showdevices(8) command or the prtdiag(8) command on the domain. For sample of output, see “Identifying Degraded Memory in a System” on page 31</p> <p>If a DR command hangs, reboot the domain to recover.</p>
6632549	fmd service on domain might fail to maintenance mode after DR operations.	<p>This has been fixed in patch 138050-01.</p> <p>[Workaround]</p> <p>If fmd service fails, issue the following commands on the domain to recover:</p> <pre># svcadm clear fmd</pre>
6660197	<p>DR might cause the domain to hang if either of the following conditions exist:</p> <ul style="list-style-type: none"> • A domain contains 256 or more CPUs. • Memory error occurred and the DIMM has been degraded. 	<p>This has been fixed in patch 138397-01.</p> <p>[Workaround]</p> <ol style="list-style-type: none"> 1. Set the following parameter in the system specification file (/etc/system): <pre>set drmach:drmach_disable_mcopy = 1</pre> 2. Reboot the domain.

TABLE 5 Solaris OS Issues Fixed in Solaris 10 10/08 (Continued)

CR ID	Description	Workaround
6679370	<p>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.</p> <p>SUNW-MSG-ID: SUN4-8000-75, TYPE: Fault, VER: 1, SEVERITY: Critical ... DESC: A problem was detected in the PCI-Express subsystem. Refer to http://sun.com/msg/SUN4-8000-75 for more information. ...</p>	<p>Add the following to <code>/etc/system</code> and then reboot the domain.</p> <pre>set pcie_expected_ce_mask = 0x2001</pre>
6720261	<p>If your domain is running one of the following versions of Solaris OS, the system might panic/trap during normal operation:</p> <ul style="list-style-type: none">• Solaris 10 5/08 OS• An earlier version of Solaris 10 OS with patch ID 127127-11	<p>For Solaris 10 5/08 or earlier, this has been fixed in patch 137137-09.</p> <p>[Workaround] Set the following parameter in the system specification file (<code>/etc/system</code>): <pre>set heaplp_use_stlb=0</pre> Then reboot the domain.</p>

Solaris OS Issues Fixed in Solaris 10 5/08

TABLE 6 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 6 Solaris OS Issues Fixed in Solaris 10 5/08

CR ID	Description	Workaround
6472153	If you create a Solaris Flash archive on a non-SPARC Enterprise M4000/M5000 sun4u server and install it on a 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.	<p>For Solaris 10 8/07 or earlier, this has been fixed in patch 137046-01.</p> <p>[Workaround]</p> <p>Just after installing Solaris OS from a Solaris Flash archive, telnet into the SPARC Enterprise M4000/M5000 server to reset the console's TTY flags a follows:</p> <pre># sttydefs -r console # sttydefs -a console -i "9600 hupcl opost onlcr crtscts" -f "9600"</pre> <p>This procedure is required only once.</p>
6522433	After the CPU hardware error occurred, the <code>fmddump(1M)</code> command on the domain may display an incorrect faulty component.	<p>For Solaris 10 8/07 or earlier, this has been fixed in patch 127127-11.</p> <p>[Workaround]</p> <p>Check system status on XSCF.</p>
6527811	The <code>showhardconf(8)</code> command on the XSCF cannot display PCI card information that is installed in External I/O Expansion Unit, if the External I/O Expansion Unit is configured using PCI hotplug.	<p>For Solaris 10 8/07 or earlier, this has been fixed in patch 128346-01.</p>

TABLE 6 Solaris OS Issues Fixed in Solaris 10 5/08 (Continued)

CR ID	Description	Workaround
6536564	showlogs(8) and showstatus(8) command on XSCF might report wrong I/O component due to wrong diagnosis by Solaris Fault management Architecture when faults in I/O devices occur.	<p>For Solaris 10 8/07 or earlier, this has been fixed in patch 125369-05.</p> <p>[Workaround]</p> <p>To avoid this problem, issue the following commands on the domain.</p> <pre># cd /usr/platform/SUNW,SPARC-Enterprise/lib/fm/topo/plugins # mv ioboard.so ioboard.so.orig # svcadm restart fmd</pre> <p>If the following messages are displayed on the domain, contact a service engineer.</p> <p>Example:</p> <pre>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</pre>
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	<p>For Solaris 10 8/07 or earlier, this has been fixed in patch 127111-08.</p> <p>No workaround is available.</p>
6545685	If the following message displayed on the OS console, memory degradation or XSB deconfiguration may occur in the subsequent reboot. Example: mc-opl: WARNING: mc-opl rewrite timeout on /LSB0/B0	<p>For Solaris 10 8/07 or earlier, this has been fixed in patch 127111-08.</p> <p>[Workaround]</p> <p>Add the following to /etc/system and then reboot the domain:</p> <pre>set mc-opl: mc_max_rewrite_loop = 20000</pre>

TABLE 6 Solaris OS Issues Fixed in Solaris 10 5/08 (Continued)

CR ID	Description	Workaround
6546188	<p>The system panics when running hotplug (<code>cfgadm(1M)</code>) and DR operations (<code>addboard(8)</code> and <code>deleteboard(8)</code>) on the following cards:</p> <ul style="list-style-type: none"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>For Solaris 10 8/07, this has been fixed in patch 127741-01.</p> <p>No workaround is available.</p> <p>Note: See CR ID 6608404 regarding issues with hot-plug of these cards in slot 1.</p>
6551356	<p>The system panics when running hotplug (<code>cfgadm(1M)</code>) 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:</p> <ul style="list-style-type: none"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>For Solaris 10 8/07, this has been fixed in patch 127741-01.</p> <p>[Workaround]</p> <p>Perform <code>cfgadm -c disconnect</code> to completely remove the card. After waiting at least 10 seconds, the card may be configured back into the domain using the <code>cfgadm -c configure</code> command.</p>
6559504	<p>Messages of the form <code>nxge: NOTICE: nxge_ipp_eccue_valid_check: rd_ptr = nnn wr_ptr = nnn</code> will be observed on the console with the following cards:</p> <ul style="list-style-type: none"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>For Solaris 10 8/07, this has been fixed in patch 127741-01.</p> <p>[Workaround]</p> <p>These messages can be safely ignored.</p>
6564934	<p>Performing a DR <code>deleteboard(8)</code> operation on a board which includes Permanent Memory when using the following network cards results in broken connections:</p> <ul style="list-style-type: none"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>For Solaris 10 8/07, this has been fixed in patch 127741-01.</p> <p>[Workaround]</p> <p>Re-configure the affected network interfaces after the completion of the DR operation. For basic network configuration procedures, refer to the <code>ifconfig</code> man page for more information</p>

TABLE 6 Solaris OS Issues Fixed in Solaris 10 5/08 (Continued)

CR ID	Description	Workaround
6568417	<p>After a successful CPU DR deleteboard(8) operation, the system panics when the following network interfaces are in use:</p> <ul style="list-style-type: none"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>For Solaris 10 8/07 or earlier, this has been fixed in patch 127111-02.</p> <p>[Workaround]</p> <p>Add the following line to <code>/etc/system</code> and reboot the system:</p> <pre>set ip:ip_soft_rings_cnt=0</pre>
6571370	<p>Use of the following cards have been observed to cause data corruption in stress test under laboratory conditions:</p> <ul style="list-style-type: none"> • X4447A-Z, PCI-e Quad-port Gigabit Ethernet Adapter UTP • X1027A-Z1, PCI-e Dual 10 Gigabit Ethernet Fiber XFP Low profile Adapter 	<p>For Solaris 10 8/07, this has been fixed in patch 127741-01.</p> <p>[Workaround]</p> <p>Add the following line in <code>/etc/system</code> and reboot the system: set</p> <pre>nxge:nxge_rx_threshold_hi=0</pre>
6589546	<p><code>prtdiag(8)</code> command does not show all I/O devices of the following cards:</p> <ul style="list-style-type: none"> • XSEFC402AF Sun StorageTek Enterprise Class 4Gb Dual-Port Fibre Channel PCI-E HBA • XSEFC401AF Sun StorageTek Enterprise Class 4Gb Single-Port Fibre Channel PCI-E HBA 	<p>For Solaris 10 8/07 or earlier, this has been fixed in patch 127127-11.</p> <p>[Workaround]</p> <p>Use <code>prtdiag -v</code> for full output.</p>

Solaris OS Issues Fixed in Solaris 10 8/07

TABLE 7 lists issues that have been fixed in Solaris 10 8/07 OS. You might encounter them in supported releases earlier than Solaris 10 11/06.



Caution – CR 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 7 Solaris OS Issues Fixed in Solaris 10 8/07

CR ID	Description	Workaround
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. [Workaround] Use multiple NIC cards to split network connections.
6441349	The system may hang if there is an I/O error in the system.	For Solaris 10 11/06, this has been fixed in patch 120011-07. No workaround is available.
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. No workaround is available.

TABLE 7 Solaris OS Issues Fixed in Solaris 10 8/07 (*Continued*)

CR ID	Description	Workaround
6496337	<p>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.</p> <p>Example:</p> <pre>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-ff-em7-d0</pre>	<p>For Solaris 10 11/06, this has been fixed in patch 125369-05.</p> <p>[Workaround]</p> <p>If problem occurred, implement the following workaround:</p> <ol style="list-style-type: none"> 1. Remove the following file. <pre># rm /var/fm/fmd/ckpt/cpumem-diagnosis/cpumem-diagnosis</pre> 2. Restart fmd service. <pre># svcadm restart fmd</pre> <p>To avoid this problem in advance, add "rm -f /var/fm/fmd/ckpt/cpumem-diagnosis/cpumem-diagnosis" in /lib/svc/method/svc-dumpadm file as below.</p> <pre># # We haven't run savecore on a dump device yet # savedev=none rm -f /var/fm/fmd/ckpt/cpumem-diagnosis/cpumem-diagnosis #</pre>
6499304	<p>CPU isn't offlined and unexpected message is displayed on console when many correctable error(CE) occurs.</p> <p>Example:</p> <pre>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</pre>	<p>For Solaris 10 11/06, this has been fixed in patch 125369-05.</p> <p>[Workaround]</p> <p>Check CPU status on XSCF.</p>

TABLE 7 Solaris OS Issues Fixed in Solaris 10 8/07 (Continued)

CR ID	Description	Workaround
6502204	<p>Unexpected error messages may be displayed on console on booting after CPU UE panic.</p> <p>Example:</p> <pre>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</pre>	<p>For Solaris 10 11/06, this has been fixed in patch 125369-05.</p> <p>[Workaround] If you see unexpected messages, use the XSCF command <code>showdomainstatus(8)</code> to check system status on XSCF.</p>
6502750	Notification message for inserted or removed card by PCI hot plug may not output.	<p>For Solaris 10 11/06, this has been fixed in patch 120011-08.</p> <p>No workaround is available.</p>
6508432	Many correctable errors (CE) may occur, and despite these are the correctable errors, domain may panic.	<p>For Solaris 10 11/06, this has been fixed in patch 120011-08.</p> <p>[Workaround] Set the following to <code>/etc/system</code> and then reboot the domain:</p> <pre>set pcie:pcie_aer_ce_mask = 0x2001</pre>
6508434	The domain may panic when an additional PCI-X card is installed or a PCI-X card is replaced by using PCI hot plug.	<p>For Solaris 10 11/06, this has been fixed in patch 120011-08.</p> <p>[Workaround] Do not insert a different type of PCI-X card on the same PCI slot by using PCI hot plug.</p>
6509337	s10s_u3 wanboot fails - The server returned 416: Requested Range Not Satisfiable.	
6510861	When Dual-Channel Ultra320 SCSI Card (SE0X7SC2F, SE0X7SC2X) is mounted, correctable errors(CE) occur and system may panic.	<p>For Solaris 10 11/06, this has been fixed in patch 120011-08.</p> <p>[Workaround] Add the following entry to the <code>/etc/system</code> file and then reboot the system:</p> <pre>set pcie:pcie_aer_ce_mask = 0x31c1</pre>

TABLE 7 Solaris OS Issues Fixed in Solaris 10 8/07 (Continued)

CR ID	Description	Workaround
6520990	Domain may cause a panic when <code>deleteboard(8)</code> command for kernel board by using Dynamic Reconfiguration (DR).	For Solaris 10 11/06, this has been fixed in patch 120011-08. [Workaround] To mask this error, add the following entry to the <code>/etc/system</code> file. <code>set drmach:fmem_timeout = 30</code>
6530178	DR <code>addboard(8)</code> command can hang. Once 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. No workaround is available.
6530288	<code>Ap_Id</code> format may not be shown correctly by <code>cfgadm(1M)</code> command.	For Solaris 10 11/06, this has been fixed in patch 120011-07. No workaround is available.
6534471	Systems may panic/trap during normal operation.	For Solaris 10 11/06, this has been fixed in patch 125100-06. If a patch is not available, disable the kernel large page sTLB programming. In the file <code>/etc/system</code> , change the variable <code>heaplp_use_stlb</code> to 0: <code>set heaplp_use_stlb=0</code>
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. [Workaround] Use DR instead of PCI hot plug if need to add or remove PCI card on the XSB.
6539084	Under Solaris 10 11/06, 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.	T No workaround is available.

TABLE 7 Solaris OS Issues Fixed in Solaris 10 8/07 (*Continued*)

CR ID	Description	Workaround
6539909	Under Solaris 10 11/06, do not use the following I/O cards for network access when you are using the <code>boot net install</code> command to install the Solaris OS: <ul style="list-style-type: none">• X4447A-Z/X4447A-Z, PCIe Quad-port Gigabit Ethernet Adapter UTP• X1027A-Z/X1027A-Z, PCIe Dual 10 Gigabit Ethernet Fiber XFP	Use an alternate 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. No workaround is available.

Software Documentation Updates

This section contains late-breaking software information that became known after the documentation set was published and corrections in the SPARC Enterprise M4000/M5000 servers software documentation.

The corrections for *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF Reference Manual*, if not otherwise specified, also apply to the man pages which XSCF provides. And they supersede the information on the man pages.

[TABLE 8](#) lists known documentation updates.

TABLE 8 Software Documentation Updates

Title	Page Number	Update
SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF Reference Manual and XSCF man pages	traceroute(8) command	The following description in Privileges is deleted: <ul style="list-style-type: none">To execute the command to DSCP address: <code>fieldeng</code> The following description is added in OPERANDS: When specifies DSCP address to <i>host</i> , an error occurs.

Identifying Degraded Memory in a System

1. Log in to XSCF.
2. Type the following command:

```
XSCF> showstatus
```

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

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

Identifying Different Memory Sizes in a System Board

To identify if the domain contains system boards with different memory sizes, you can use either of the following commands to display the list of memory sizes:

- `showdevices(8)` command on the XSCF
- `prtdiag(1M)` command on the domain

Using the `showdevices` Command

1. Log in to XSCF.

2. Type the following command:

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

The following example displays 00-0 has 64GB of memory while the other system boards have 16GB.

```
XSCF> showdevices -d 1
Memory:
-----

```

DID	XSB	board mem MB	perm mem MB	base address	domain mem MB	target XSB	deleted mem MB	remaining mem MB
01	00-0	63680	0	0x0000004000000000	260288			
01	01-0	16384	7384	0x0000034000000000	260288			
01	01-1	16384	0	0x0000030000000000	260288			
01	01-2	16384	0	0x000002c000000000	260288			
01	01-3	16384	0	0x0000028000000000	260288			
...								

Using the prtdiag Command

- On the domain, execute the prtdiag command.

```
# prtdiag
```

The following example displays different memory sizes.

```
# prtdiag
===== Memory Configuration =====

```

LSB	Memory Group	Available Size	Memory Status	DIMM Size	# of DIMMs	Mirror Mode	Interleave Factor
00	A	8192MB	okay	2048MB	4	no	2-way
00	B	8192MB	okay	2048MB	4	no	2-way
01	A	8192MB	okay	2048MB	4	no	2-way
01	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
...							

Identifying Permanent Memory in a Target Board

1. Log in to XSCF.
2. Execute the following command:

```
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:
-----

```

DID	XSB	board mem MB	perm mem MB	base address	domain mem MB	target XSB	deleted mem MB	remaining mem MB
00	00-0	8192	0	0x0000000000000000	24576			
00	00-2	8192	1674	0x000003c000000000	24576			
00	00-3	8192	0	0x0000034000000000	24576			

```
...
```

The entry for column 4 perm mem MB indicates the presence of permanent memory if the value is non-zero.

The example shows permanent memory on 00-2, with 1674 MB.

If the board includes permanent memory, when you execute the `deleteboard(8)` command or the `moveboard(8)` command, the following notice appears:

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

CPU Upgrade

This section describes the procedure to mount the SPARC64 VII processor on the SPARC Enterprise M4000/M5000 server.

- [Adding a New SPARC64 VII CPUM as a New Domain](#)
- [Upgrading SPARC64 VI CPU Module to SPARC64 VII CPU Module](#)
- [Adding a New CPUM Equipped with SPARC64 VII to an Existing Domain Equipped with SPARC64 VI](#)

Note – Before upgrading firmware to XCP 1071 or later, refer to [“Updating to XCP 1071 or later” on page 4](#).



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

Adding a New SPARC64 VII CPUM as a New Domain

1. Log in to the XSCF on an account with platform administrative privileges.
2. Use the `showstatus(8)` command to confirm that a component in Faulted or Deconfigured status doesn't exist.

```
XSCF> showstatus
```

If no failures found, the following message appears: "No failures found in System Initialization." In case of other messages, contact a service engineer before proceeding to the next step.

3. Turn off the power to all domains.

```
XSCF> poweroff -a
```

4. Confirm that all domains 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.

This will be help in case any problem occurred in this procedure.

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

7. Update the XCP version to 1071 or later.

Before updating the XCP, be sure to see [“Updating to XCP 1071 or later”](#) on page 4. For the XCP updating procedures, see the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User’s Guide*.

8. Mount the SPARC64 VII CPU module (CPUM) to the system.

For the procedure, see the description about the CPU module installation in Section 12, "Replacing a CPU module" in the *SPARC Enterprise M4000/M5000 Servers Service Manual*.



Caution – After mounted the CPU module, get the power cable connected to the power supply.

9. Log in to the XSCF.

10. Execute the diagnosis of newly mounted CPU module by using the `testsb(8)` command and confirm that the mounted CPU module has been normal condition.

Example: In case of adding PSB#01 in 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
```

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

```
XSCF> showhardconf -M
```

12. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a service engineer.

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

14. Power on existing domains.

```
XSCF> poweron -a
```

15. Sets 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 of the domain.

For each setting, see the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

16. Use the `setdomainmode(8)` command, disable the autoboot function of the target domain.

For detail, see the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

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 no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a service engineer.

20. Install Solaris 10 5/08 or later.

21. Use the `setdomainmode(8)` command, enable the autoboot function of the target domain.

For detail, see the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*. The autoboot function is applied by a domain reboot.

Upgrading SPARC64 VI CPU Module to SPARC64 VII CPU Module

1. When the Solaris OS version is Solaris 10 8/07, update it to Solaris 10 5/08 or apply the mandatory patches described in [“Solaris Patch Information”](#) on page 3.
2. To use SPARC64 VII processors, apply the relevant patches to the software in use, if necessary.
3. Log in to the XSCF on an account with platform administrative privileges.
4. Use the `showstatus(8)` command to confirm that a component in Faulted or Deconfigured status doesn't exist.

```
XSCF> showstatus
```

If no failures found, the following message appears: "No failures found in System Initialization." In case of other messages, contact a service engineer before proceeding to the next step.

5. Turn off the power to all domains..

```
XSCF> poweroff -a
```

6. Confirm that all domains stopped.

```
XSCF> showlogs power
```

7. Change the key position on the operator panel from Locked to Service.
8. Collect an XSCF snapshot to archive system status prior to upgrade.
This will be help in case any problem occurred in this procedure.

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

9. Update the XCP version to 1071 or later.

Before updating the XCP, be sure to see [“Updating to XCP 1071 or later”](#) on page 4. For the XCP updating procedures, see the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

10. Log in to the XSCF.
11. Power on all domains, and apply OpenBoot PROM firmware.

```
XSCF> poweron -a
```

It stops at ok prompt. It is not necessary to start Solaris OS.

12. Check the applied OpenBoot PROM version.

The OpenBoot PROM version of XCP 1080 is 02.07.0000.

```
XSCF> version -c cmu -v

DomainID 00 : 02.03.0000
DomainID 01 : 02.03.0000
DomainID 02 : 02.07.0000
DomainID 03 : 02.07.0000

XSB#00-0 : 02.03.0000 (Current), 02.02.0000 (Reserve)
XSB#00-1 : 02.03.0000 (Current), 02.02.0000 (Reserve)
XSB#00-2 : 02.03.0000 (Current), 02.02.0000 (Reserve)
XSB#00-3 : 02.03.0000 (Current), 02.02.0000 (Reserve)
XSB#01-0 : 02.03.0000 (Reserve), 02.07.0000 (Current)
XSB#01-1 : 02.03.0000 (Reserve), 02.07.0000 (Current)
XSB#01-2 : 02.03.0000 (Reserve), 02.07.0000 (Current)
XSB#01-3 : 02.03.0000 (Reserve), 02.07.0000 (Current)
```

In case that the OpenBoot PROM version of all domains and XSBs are not displayed as 02.07.0000, contact a service engineer.

13. Turn off all domains.

```
XSCF> poweroff -a
```

14. Upgrade SPARC64 VI processors to SPARC64 VII processors to an existing domain.

For the procedure, see the description about the CPU module installation in Section 12, "Replacing a CPU module" in the *SPARC Enterprise M4000/M5000 Servers Service Manual*.



Caution – After mounted the CPU module, get the power cable connected to the power supply.

15. Log in to the XSCF.

16. Execute the diagnosis of newly mounted CPU module by using the `testsb(8)` command and confirm that the mounted CPU module has been normal condition.

Example: In case of adding PSB#01 in 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
```

17. Confirm that the mounted CPU module has been recognized by the server, and the error indicator asterisk (*) is not displayed.

```
XSCF> showhardconf -M
```

18. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a service engineer.

19. Move the key position on the operator panel from Service to Locked.
20. Set up and confirm the CPU operational mode of the domain.

For detail, see the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

21. Power on all domains.

```
XSCF> poweron -a
```

22. Confirm that all domains has been correctly started.

```
XSCF> showlogs power
```

23. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a service engineer.

Adding a New CPUM Equipped with SPARC64 VII to an Existing Domain Equipped with SPARC64 VI

1. When the Solaris OS version is Solaris 10 8/07, upgrade it to Solaris 10 5/08 or apply the mandatory patches described in [“Solaris Patch Information”](#) on page 3.
2. To use SPARC64 VII processors, apply the relevant patches to the software in use, if necessary.
3. Log in to the XSCF on an account with platform administrative privileges.
4. Use the `showstatus(8)` command to confirm that a component in Faulted or Deconfigured status doesn't exist.

```
XSCF> showstatus
```

If no failures found, the following message appears: "No failures found in System Initialization." In case of other messages, contact a service engineer before proceeding to the next step.

5. Turn off the power to all domains.

```
XSCF> poweroff -a
```

6. Confirm that all domains stopped.

```
XSCF> showlogs power
```

7. Change the key position on the operator panel from Locked to Service.
8. Collect an XSCF snapshot to archive system status prior to upgrade.

This will help in case any problem occurred in this procedure.

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

9. Update the XCP version to 1071 or later.

Before updating the XCP, be sure to see [“Updating to XCP 1071 or later”](#) on page 4. For the XCP updating procedures, see the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

10. Log in to the XSCF.

11. Power on all domains, and apply OpenBoot PROM firmware.

```
XSCF> poweron -a
```

It stops at ok prompt. It is not necessary to start Solaris OS.

12. Check the applied OpenBoot PROM version.

The OpenBoot PROM version of XCP 1080 is 02.07.0000.

```
XSCF> version -c cmu -v

DomainID 00 : 02.03.0000
DomainID 01 : 02.03.0000
DomainID 02 : 02.07.0000
DomainID 03 : 02.07.0000

XSB#00-0 : 02.03.0000 (Current), 02.02.0000 (Reserve)
XSB#00-1 : 02.03.0000 (Current), 02.02.0000 (Reserve)
XSB#00-2 : 02.03.0000 (Current), 02.02.0000 (Reserve)
XSB#00-3 : 02.03.0000 (Current), 02.02.0000 (Reserve)
XSB#01-0 : 02.03.0000 (Reserve), 02.07.0000 (Current)
XSB#01-1 : 02.03.0000 (Reserve), 02.07.0000 (Current)
XSB#01-2 : 02.03.0000 (Reserve), 02.07.0000 (Current)
XSB#01-3 : 02.03.0000 (Reserve), 02.07.0000 (Current)
```

In case that the OpenBoot PROM version of all domains and XSBs are not displayed as 02.07.0000, contact a service engineer.

13. Turn off all domains.

```
XSCF> poweroff -a
```

14. Mount the CPU module (CPUM) on the server.

For the procedure, see Section 12, "Replacing a CPU module" in the *SPARC Enterprise M4000/M5000 Servers Service Manual*.



Caution – After mounted the CPU module, get the power cable connected to the power supply.

15. Log in to the XSCF.

16. Execute the diagnosis of newly mounted CPU module by using the `testsb(8)` command and confirm that the mounted CPU module has been normal condition.

Example: In case of adding PSB#01 in 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
```

17. Confirm that the mounted CPU module has been recognized by the server, and the error indicator asterisk (*) is not displayed.

```
XSCF> showhardconf -M
```

18. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a service engineer.

19. Move the key position on the operator panel from Service to Locked.

20. Sets 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 of the domain.

For each setting, see the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide*.

21. Power on all domains.

```
XSCF> poweron -a
```

22. Confirm that all domains has been correctly started.

```
XSCF> showlogs power
```

23. Confirm no abnormality occurred by using `showlogs error -v` and `showstatus(8)` commands.

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

If you encounter any hardware abnormality of the XSCF contact a service engineer.

