FUJITSU

SPARC Enterprise T5140 and T5240 Servers Product Notes

Manual Code C120-E493-17EN
Part No.: 875-4318-26
November 2012, Revision A

Please
Recycle

Contents

Preface

These product notes contain late-breaking information about the SPARC Enterprise T5140 and T5240 servers hardware, software, or documentation errata.

Note – The information indicated in this document will be updated as needed. Check the following web site on a regular basis for the availability of a newer edition when using the SPARC Enterprise T5140 and T5240 servers.

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

Downloading Documentation

The documentation set of SPARC Enterprise T5140 and T5240 servers is available on the following web site.

- Global Site

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

- North American Site

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

- Japanese Site

  http://jp.fujitsu.com/platform/server/sparcenterprise/manual/

Note – Information in these product notes supersedes the information in the SPARC Enterprise T5140 and T5240 documentation sets.

Documentation Feedback

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 web site.

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

CHAPTER 1

New Information About the SPARC Enterprise T5140 and T5240 Servers

This chapter describes new information about the SPARC Enterprise T5140 and T5240 servers that was not documented in the previous edition of the *SPARC Enterprise T5140 and T5240 Servers Product Notes*.

Information that was documented in the previous edition is provided in the following locations:

- Chapter 2 contains important information about the T5140 and T5240 servers.
- Chapter 3 describes technical issues.
- Chapter 4 describes documentation issues.
- Appendix A describes fixed technical issues.
- Appendix B describes minor cases that will not be fixed.

Important New Information About the SPARC Enterprise T5140 and T5240 Servers

There is no new capabilities that are supported at the release of this document.

New Information About Known Issues

This section describes technical issues that were identified after the previous edition of this document was published.

Hardware and Mechanical Issues

There is no technical issue that were identified after the previous edition of this document was published.

Solaris OS Issues

There is no technical issue that were identified after the previous edition of this document was published.

Firmware and General Software Issues

There is no technical issue that were identified after the previous edition of this document was published.

Oracle VM Server for SPARC Issues

There is no technical issue that were identified after the previous edition of this document was published.

New Information About Documentation Errata

There is no documentation errata that were identified after the previous edition of this document was published.

CHAPTER 2

Important Information About the SPARC Enterprise T5140 and T5240 Servers

This chapter contains important information about the SPARC Enterprise T5140 and T5240 servers.

The following sections are included:

Notes on DVD Drive and Discs

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

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

Supported Versions of Solaris OS and System Firmware

TABLE 2-1 lists the versions of Oracle Solaris Operating System (Solaris OS) and system firmware supported for SPARC Enterprise T5140 and T5240 servers.

Your server is preinstalled with the latest supported Solaris OS, patches and firmware. If you decide to install some other supported version, be certain to also install the patches required by that version. For information on OS patch requirements, see "Patch Information" on page 10.

Note – If you install a Solaris OS over the preinstalled OS (even if it is the same version) you will overwrite the supplementary software that was preinstalled at the factory. See "Preinstalled Software" on page 8 for more information on this additional preinstalled software.

Note – Some optional features require certain versions of the Solaris OS and System Firmware. See "Solaris OS and Firmware Requirements for Certain Features" on page 5.

TABLE 2-1 Supported Versions of the Solaris OS and Firmware

	Supported Versions
Solaris OS	Solaris 10 8/07 OS plus mandatory patches – Minimum supported version
	Solaris 10 5/08 OS plus patches
	Solaris 10 10/08 OS or later
	Oracle Solaris 11 OS – Latest supported version
Firmware	System Firmware 7.1.3.d – Minimum supported version
	System Firmware 7.4.4.f – Latest supported version (as of November 2012)

Note – When installing the Solaris 10 8/07 OS or Solaris 10 5/08 OS on a server equipped with a USB SATA DVD drive, see "Notes on Installing Solaris 10 8/07 OS and Solaris 10 5/08 OS" on page 34.

Solaris OS and Firmware Requirements for Certain Features

TABLE 2-2 identifies the minimum Solaris OS and firmware versions required to support certain features.

TABLE 2-2 Minimum Solaris OS and Firmware Version Requirements for Certain Features

Feature	Minimum Firmware Version	Minimum OS Version
12 or 24 FB-DIMM system configuration	7.1.3.d	N/A
Systems using the External I/O Expansion Unit	7.1.6.d	Solaris 10 10/08 OS
Systems using low voltage (LV) 1.5V FB-DIMMs*	7.1.6.d	N/A
Different FB-DIMM capacities on different CPUs*	7.1.7.f	N/A
Systems operating with DC power supplies	7.1.7.f	Solaris 10 10/08 OS
1.6 GHz processors	7.2.2.e	N/A
ILOM 3.0 firmware	7.2.2.e	N/A
Hardware RAID	7.2.2.e	N/A
Different FB-DIMM capacities using the memory mezzanine assembly	7.2.7.b	N/A
Oracle VM Server for SPARC †	-	-

* Follow all of the system memory configuration rules and restrictions defined in the *SPARC Enterprise T5140 and T5240 Servers Service Manual*.

† Formerly, Oracle VM Server for SPARC was called Logical Domains or LDoms. For minimum firmware version, minimum OS version, and mandatory patches when using Oracle VM Server for SPARC software, see the *SPARC Enterprise Oracle VM Server for SPARC Important Information*.

Note – To benefit from the accumulated features, enhancements, and fixes, upgrade your system firmware to the most recent version available.

System Firmware Update

The System Firmware controls various aspects of the host and the service processor. The System Firmware comprises the following individual firmware components

- Integrated Lights Out Manager (ILOM) firmware
- OpenBoot PROM (OBP) firmware
- Power-On Self-Test (POST) firmware
- Hypervisor firmware
- VBSC firmware

System Firmware updates are provided as patch releases. For the information on how to get the patch releases, contact your sales representative.

When you update the System Firmware, all of the individual firmware components are updated. You cannot update firmware components individually. Refer to the *SPARC Enterprise T5140 and T5240 Servers Installation Guide* for more information about updating the system firmware.

Support for Windows 7 and Internet Explorer 8

As of System Firmware 7.2.7, the Remote Console feature in ILOM supports Microsoft Windows 7 and Internet Explorer 8 operating system clients.

Change and Functional Enhancement in System Firmware 7.2.8

Change of Host Console Target

In System Firmware 7.2.8 or later, the host console target in ILOM has been changed to `/HOST/console`. However, by directly specifying the conventional target `/SP/console`, you can obtain the host console as before. Also, the properties under the host console target can be used in the same way as `/SP/console`.

How to obtain the host console in System Firmware 7.2.8 or later is as follows.

```
-> show /HOST/console

 /HOST/console
    Targets:
        history

    Properties:
        escapechars = #.
        line_count = 0
        pause_count = 0
        start_from = end

    Commands:
        cd
        show
        start
        stop

-> start /HOST/console
Are you sure you want to start /HOST/console (y/n)? y

Serial console started.  To stop, type #.

XXXXXX console login:
```

Addition of Protocols for Firmware Update

In System Firmware 7.2.8 or later, three protocols which can be used in the firmware update via the ILOM CLI interface have been added. In addition to the conventional tftp, you can use ftp, sftp, and scp.

The scp protocol execution example:

```
-> load -source
scp://xxxxx:xxxxxx@XXX.XXX.XXX.XXX//mnt1/Firmware_Update/Huron/7.2.8/
/Sun_System_Firmware-7_2_8-SPARC_Enterprise_T5120+T5220.pkg

NOTE: An upgrade takes several minutes to complete. ILOM will enter a special
mode to load new firmware. No other tasks can be performed in ILOM until the
firmware upgrade is complete and ILOM is reset.

Are you sure you want to load the specified file (y/n)? y
Do you want to preserve the configuration (y/n)? y
.............................................................
.....................................................
```

```
Firmware update is complete.
ILOM will now be restarted with the new firmware.
```

Preinstalled Software

This section lists and describes the preinstalled software on your server. The preinstalled software is ready to use.

TABLE 2-3 Preinstalled Software

Software	Location	Function
Solaris 10 5/09	Root disk Slice 0 (and on Slice 3 in the ABE) with patches	Operating system
Oracle Studio 1.2 U1 developer tools	`/opt/sunstudio12.1`	C, C++, and Fortran compiler
LDoms Manager 1.3	`/opt/SUNWldm/`	Manages Logical Domains
LDoms MIB	`/opt/SUNWldmib`	LDoms Management Information Base
CMT Tools 1.2	`/opt/sunstudio12.1/bin` `/opt/sunstudio12.1/prod/bin`	Sun Studio Developer Tools
Code Generator for SPARC Systems 4.3.2	`/opt/gcc` and `/opt/SUNW0scgfss`	GCC compiler for SPARC Systems

Note – The Solaris OS is preinstalled both in root disk Slice 0 for normal operations, and in Slice 3 along with Live Upgrade software to provide an Alternate Boot Environment (ABE). The ABE enables you to upgrade the Solaris OS or perform system maintenance tasks without reducing performance. An identical (bootable) copy of the root partition (including the Solaris OS, EIS, and applications) is installed as an ABE in Slice 3.

Logical Domains

Logical Domains is a virtualized hardware environment operating on the SPARC platform. It can divide one platform into multiple virtual server environments, and each virtual server can run its own independent instance of the operating system. Using Logical Domains (LDoms) increases your server usage, efficiency, and return on investment, and also reduces your server footprint.

Oracle VM Server for SPARC (Formerly, called Logical Domains Manager) software creates and manages logical domains, and maps logical domains to physical resources.

Note – The Logical Domains MIB must be configured before you can use it. For the configuration instructions, see the `README` file located in the Logical Domains MIB installation directory, `/opt/ldoms_mib`.

For more information on Oracle VM Server for SPARC, go to:

http://www.fujitsu.com/global/services/computing/server/sparcenterprise/products/software/ldoms/

Supported Sun Explorer Utility Version

The SPARC Enterprise T5140 and T5240 servers are supported by the Sun Explorer 5.10 (or later) data collection utility, but are not supported by earlier releases of the utility. Determine whether an earlier version of the Sun Explorer product has been installed on your system by typing the following:

```
# pkginfo -l SUNWexplo
```

If an earlier version exists, uninstall it and install version 5.10, or later. For information on how to get the Sun Explorer Utility, please contact a certified service engineer.

Patch Information

For the information on how to get the patch releases, contact your sales representative.

Before contacting support, ensure that all mandatory patches are installed on your server.

To determine if a patch is present, see "To Install Patches" on page 12.

Note – The mandatory patches might not be included in some versions of the preinstalled or preloaded software on your server. If the patches are missing from your server, download them from as described in "To Install Patches" on page 12.

Patch CD

A patch CD (*Operating System Patch Recovery CD for UltraSPARC T2 Plus Products, Only for use with the Solaris 10 8/07 OS*) has been shipped with your server.

TABLE 2-4 Patch CD Components

Patch ID	Description
124235-02	`libpam.so.1` patch
125369-13	Fault Manager patch
125416-06	UFS utilities patch
125476-02	`libc_psr_hwcap.so.1` patch
126434-05	`raidctl` patch
127111-08	Kernel patch

The CD has been provided for recovery purposes in case you chose to install the Solaris 10 8/07 OS. Install the patches on the CD if you decide to replace the installed OS with Solaris 10 8/07.

Note – The patches on the CD include an updated network driver that is required to enable use of the network interfaces on the SPARC Enterprise T5140 and T5240 servers. After installing the Solaris 10 8/07 OS and the patches, network interfaces will remain unconfigured. You can configure the network interfaces by running the Solaris `sys-unconfig` (1M) command or by configuring network options manually. See your Solaris 10 8/07 OS documentation.

Mandatory Patch Information For the Solaris 10 8/07 OS

TABLE 2-5 identifies the mandatory patches for the Solaris 10 8/07 OS.

TABLE 2-5 Mandatory Patches for the Solaris 10 8/07 OS

Patch ID	Description
124235-02 or later	`libpam.so.1` patch
125369-13 or later	Fault Manager patch
125416-06 or later	UFS utilities patch
125476-02 or later	`libc_psr_hwcap.so.1` patch
126434-05 or later	`raidctl` patch
127127-11 or later	Kernel patch
137111-01 or later	Kernel patch

Mandatory Patch Information For the Solaris 10 5/08 OS

TABLE 2-6 identifies the mandatory patches for the Solaris 10 5/08 OS.

TABLE 2-6 Mandatory Patches for the Solaris 10 5/08 OS

Patch ID	Description
137111-01 or later	Kernel patch
137291-01 or later	`n2cp` driver patch
138048-01 or later	`nxge` patch

Mandatory Patch Information For the Solaris 10 10/08 OS

There are no mandatory patches for the Solaris 10 10/08 OS at this time.

Mandatory Patch Information For the Solaris 10 5/09 OS

There are no mandatory patches for the Solaris 10 5/09 OS at this time.

▼ To Install Patches

1. **Determine whether the patches you require have been installed on your system.**

   For example, using the `showrev` command, type the following for each patch number:

```
# showrev -p | grep "Patch: 123456"
```

   - If you see patch information listed for the queried patch, and the dash extension (the last two digits) matches or exceeds the required version, your system has the proper patches already installed. No further action is required.

     For example, if patch *123456-16* or later is installed, your system has the required version of this patch.

   - If you do not see patch information listed for the queried patch, or if the dash extension precedes the required version, go to Step 2.

     For example, if no version of the *123456* patch, or a version with an extension of -15 or earlier is installed, you must download and install the new patch.

2. **Get the necessary patches.**

   For the information on how to get the patch releases, contact your sales representative.

3. **Follow the installation instructions provided in a specific patch's `README` file.**

Patches for Option Cards

If you add option cards to your server, refer to the documentation and `README` files for each card to determine if additional patches are needed.

Installing the Fujitsu 4Gbps Fibre Channel Card

Once you install the Fujitsu 4Gbps Fibre Channel card (SE0X7F11X, SE0X7F12X), the patch indicated below is required.

For the information on how to get the patch releases, contact your sales representative. For the installation instructions, see the `README` file included in the patch.

Optional cards

- Single-channel 4Gbps Fibre Channel card (SE0X7F11X)
- Dual-channel 4Gbps Fibre Channel card (SE0X7F12X)

Required patch

- FUJITSU PCI Fibre Channel 4.0: 914583-04 or later

Notes and Limitations

This section provides notes and describes limitations on this release of the SPARC Enterprise T5140 and T5240 servers.

Cryptographic Function

When using the cryptographic function, install the Solaris 10 9/10 or later.

If you use the function in the Solaris OS older than Solaris 10 9/10, apply the patch 142909-17 or later.

Hardware RAID Function

The SPARC Enterprise T5140 and T5240 servers are equipped with a hardware RAID function by default, and this section shows the support conditions and the points of concern.

1. Support conditions

TABLE 2-7 Support Conditions for RAID Function

Item	Description
Mandatory Solaris OS patch	Patch ID: 141444-09 or later, or PTF R10021 or later
Mandatory ESF (Enhanced Support Facility) patch	914604-07 or later
System Firmware	7.2.2.e or later
RAID level	RAID 1 (IM: Integrated Mirror) only. In RAID 1, two member disks per volume. * RAID 0 (IS: Integrated Stripe) is not supported.
HDD	A single volume shall be made up of disks of the same capacity and the same rotational speed. * SSD is not supported.
Number of volumes	Up to 2 volumes supported per system.

2. Points of concern

- When using the RAID function
  - Make backup copies of important data and programs periodically. In some failures, rebuild of RAID and the data restore from the backup media may become necessary.

    To ensure data integrity in time of power failure, it is recommended to use an UPS.
  - If you require higher availability such as the controller or the data path redundancy, use the dedicated RAID system.
- When building or deleting a RAID 1 array
  - The data in the disk is not secured during the build or the deletion of a RAID array. When you newly build a RAID array while the system is running, or delete the built RAID array once, do not fail to make backup copies of the data. After building a RAID, you need to install data newly or restore data from the backup media.
  - The RAID build or the synchronization associated with maintenance takes about an hour for a 146GB HDD.
  - If there is a system restart during the RAID build or synchronization, the build/synchronization must be started again from the beginning.
  - When the RAID applied, the volume size is smaller than the size of original disk.

- During the RAID 1 operation
  - In some cases, RAID controller cannot conclude the disk is completely in failure, and system slowdown may occur. To do maintenance in this status, follow the procedures below.

    1. Delete the RAID.
    2. Replace all the disks related to the RAID.
    3. Rebuild the RAID 1.
    4. Restore the data from the backup media.
- Notes on the `raidctl` command
  - The following options of the `raidctl` command can not be used because the hardware specifications do not support them.

    `raidctl -C -r 1E` (To create a RAID1E)

    `raidctl -c -r 1E` (To create a RAID1E)

    `raidctl -a` (To assign hot-spare disks)

    `raidctl -p` (To set the cache)

    `raidctl -C -z` (To specify the volume capacity)

Cable Management Arm

The SPARC Enterprise T5140 server doesn't support the cable management arm (CMA).

The following restrictions apply when using a CMA on SPARC Enterprise T5240 server:

- The maximum capacity of the CMA is as follows:
  - AC input power model : 2 AC cables and 6 RJ45 cables
  - DC input power model : 6 DC cables and 6 RJ45 cables
- Optical fiber cables cannot be accommodated in the CMA. Route the cables through the free space on top of the CMA.
- Cables with a cable core (such as SCSI cables) cannot be accommodated in the CMA. Route the cables through the free space on top of the CMA.

Moreover, if it hampers to install optional products that are subject to the following structural restriction, first uninstall and remove the CMA.

- Cables with large connectors (such as for an XVR-300 or SAS card) must be connected to the top PCIe slot.

Express Rail Rackmounting Kit

Installing the servers with the express rail rackmounting kit is not supported.

SAS RAID Internal HBA Card

SAS RAID Internal HBA Card is not currently supported.

SSD Storage

This section describes support for 32GB SATA SSDs (Solid State Drives). It also describes the procedure for updating the SATA Controller with the firmware version required to use SSDs.

SPARC Enterprise T5140 and T5240 servers can now use 32GB SATA SSDs for internal storage. The SSDs are hot-pluggable. You can replace the existing 2.5-inch SAS hard drives with the SSDs. You can also have both 2.5-inch SAS hard drives and SSDs installed at the same time.

Note – The number of 32GB SATA SSDs which can be installed in T5140 and T5240 servers varies depending on the maximum number of HDDs installed in the servers. For details, see TABLE 2-8.

TABLE 2-8 The Number of Installable 32GB SATA SSDs

	Maximum Number of HDDs	Installable Number of SSDs	Note
T5140 server	4	3	When using the external storage unit for the system disk, up to 4 SSDs can be installed.
	8	4	
T5240 server	8	7	When using the external storage unit for the system disk, up to 8 SSDs can be installed.
	16	8	

For instructions on installation and removal of SSDs, see the "Hot-Plugging a Hard Drive" described in the *SPARC Enterprise T5140 and T5240 Servers Service Manual*. The procedures apply to both the disk-based hard drives and SSDs.

Using a SSD as a Boot Device

You cannot use a SSD as a boot device.

Cache Setting of SSDs

The SSDs have a setting of internal cache enabled in the initial status. When used in the cache enabled condition, data may be lost at the time of power failure.

You can disable the internal cache by using a sub command `cache` of `format -e` command after booting the Solaris OS. This setting is not saved when you reboot the Solaris OS.

To ensure data integrity, it is recommended to use an uninterruptible power supply (UPS).

Estimated Usable Period of SSDs

The SSDs are designed with the estimate of usable period for five years. Depending on the user environment such as the frequency of use, replacement may be required before the five-year maintenance support period expires.

Preventive Replacement Monitoring Function of SSD

On the ESF (Enhanced Support Facility) of a certain version or later, the preventive replacement monitoring function of SSD is supported. Supported versions of software are as follows.

- Supported versions of software

  ESF (Enhanced Support Facility) 3.0 to 3.1, and patch 914604-08 or later

Using SSDs on the 16-Disk Backplane Model

To use the SSDs on the 16-disk backplane model, only the server equipped with the USB SATA DVD drive can be used.

For servers shipped after September 2009, the USB SATA DVD drive unit has been mounted. Confirm whether a USB SATA DVD drive unit is mounted on your server by using either of the following methods.

- Confirm that the "SATA DVD" mark appears on the front side of the DVD drive.
- Confirm that specific part numbers are displayed in the output for the following ILOM/ALOM commands.

[Using ILOM command mode]

Confirm whether either of the following part numbers is displayed in the output from `ls /SYS/PADCRD` command.

```
fru_part_number = 5413512
```

or

```
fru_part_number = 5413513
```

[Using ALOM CMT compatible shell]

Confirm whether either of the following part numbers is displayed in the output from `showfru /SYS/PADCRD` command.

```
/Partner_Part_NumberR/Partner_Part_Number: CF005413512REVxx
```

or

```
/Partner_Part_NumberR/Partner_Part_Number: CF005413513REVxx
```

Updating LSI 1068e Controller Firmware to Support SSDs

To use SSDs, the version of LSI 1068e controller firmware should be 1.27.00.00 or later. Depending on the firmware version of your server, you may need to update the controller firmware. Controller Firmware updates are provided as patch releases. For the information on how to get the patch releases, contact your sales representative.

RFID Tag

RFID tags are attached to the servers shipped after January 2011 in stages. Note that the servers with and without the RFID tag may temporarily exist.

FIGURE 2-1 and FIGURE 2-2 show the locations of the RFID tags.

FIGURE 2-1 SPARC Enterprise T5140 Server Appearance (Front View)

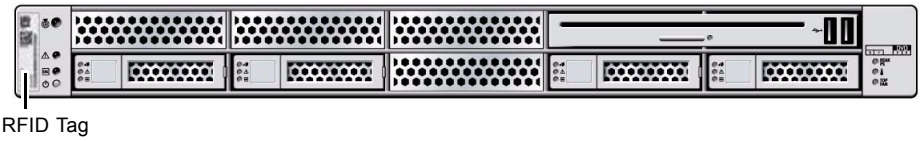
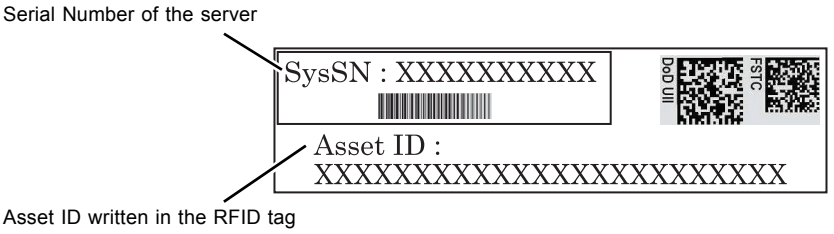


FIGURE 2-2 SPARC Enterprise T5240 Server Appearance (Front View)

FIGURE 2-3 shows the appearance of RFID tag.

FIGURE 2-3 RFID Tag Appearance



Changed Behavior When Operating the Solaris OS With Logical Domains

This section describes the changes in behavior in using the Solaris OS that occur once a configuration has been created by the Logical Domains Manager.

Note – OpenBoot firmware is not available after the Solaris OS has started, because it is removed from memory. To reach the `ok` prompt from the Solaris OS, you must halt the domain. You can use the Solaris OS `halt` command to halt the domain.

Results from Halting or Rebooting the Control Domain

The following table shows the expected behavior of halting or rebooting the control (primary) domain.

TABLE 2-9 Expected Behavior of Halting or Rebooting the Control (Primary) Domain

Command	Other Domain Configured?	Behavior
`halt`	No	Host powered off and stays off until powered on at the SP.
	Yes	Resets and boots up if the variable `auto-boot?=true`. Resets and halts at `ok` prompt if the variable `auto-boot?=false`.
`reboot`	No	Reboots the host, no power off.
	Yes	Reboots the host, no power off.
`shutdown -i 5`	No	Host powered off, stays off until powered on at the SP.
	Yes	Resets and reboots.

Notes on Processor Identification

Processor IDs might not start at 0, and might not be contiguous.

Different platforms and platforms of the same model might have different processor IDs for identical configurations. For example, on UltraSPARC T1 CPU based platforms, the processor IDs start with processor ID 0. But other platforms, including those based on the UltraSPARC T2 Plus CPU, might not have a processor ID 0. The Solaris `psrinfo` command might display output similar to the following for platforms based on the UltraSPARC T2 Plus processor:

```
8       on-line   since 09/18/2007 21:26:25
9       on-line   since 09/18/2007 21:26:30
16      on-line   since 09/18/2007 21:26:30
17      on-line   since 09/18/2007 21:26:30
```

The processor IDs exported to a guest domain on a platform running multiple guest domains with a virtual machine manager might represent a virtual abstraction. Within each guest domain, each processor ID visible to the software will be a unique integer value.

Software running in different guest domains on the same physical machine might see the same or different sets of virtual processor IDs. If domaining is enabled, the virtual processor IDs and physical processor IDs are never the same. For information about the mapping between virtual and physical CPU numbers, see the latest *Oracle VM Server for SPARC Administration Guide*.

Processor IDs are simply unique integer values in the domain where the software is running. The integer value will fit in the type `processorid_t`. Also refer to the `p_online`(2) man page.

Notes on Using 200V Power Supply

For the servers that have the plug with lock function, confirm that a 15A overcurrent protection device is available outside the server. If one is not available, prepare an external 15A overcurrent protection that can be achieved by means of no-fuse breakers (NFBs) or fuses. The plug with lock function 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.

For details of the power cord type for your server, contact your authorized service engineer.

Notes on Using Oracle Solaris 11 OS

At the Oracle Solaris OS startup, the ILOM event log shows the Open/Close session message more than once which means login/logout to/from ILOM.

This message appears because the SMF service ilomconfig-interconnect on Oracle Solaris OS accesses ILOM at the startup by using an internal bus. Therefore, this message can be safely ignored.

Output example:

```
3192   Mon Nov  7 15:36:43 2011  Audit     Log       minor
       host_root : Close Session : object = "/SP/session/type" : value = "shell"
: success
3191   Mon Nov  7 15:36:42 2011  Audit     Log       minor
       root : Open Session : object = "/SP/session/type" : value = "shell" :
success
```

CHAPTER 3

Known Issues

This chapter describes known issues about the SPARC Enterprise T5140 and T5240 servers.

The following sections are included in this chapter:

Note – For the issues already fixed in the latest version of Solaris OS or System Firmware, see Appendix A. For the latest version to be supported, see "Supported Versions of Solaris OS and System Firmware" on page 4.

Hardware and Mechanical Issues

This section describes hardware issues known to exist at this release of the SPARC Enterprise T5140 and T5240 servers.

Hot-Swapping Fan Modules

When removing a fan module, hold the adjacent fan module in place to avoid unintentionally dislodging the adjacent fan module.

Unexpected LED Behavior

An unexpected LED behavior occurs when you create a RAID volume using internal drives. All of the LEDs on the disks in the volume blink at the same time about every 16 seconds. This behavior is normal and can be ignored.

Onboard Ethernet Port

The onboard Ethernet port of the SPARC Enterprise T5140/T5240 does not support half duplex transfer at any of the speeds of 10M/100M/1000M.
Therefore, connect it to a switch/hub that supports full duplex transfer.

False Intermittent SATA Errors Seen on SPARC Enterprise T5140 and T5240 Servers (CR 6880299)

When booting some systems with SATA DVD devices intermittently log port failure errors in /var/adm/messages. The following shows an example of typical error messages:

```
/pci@400/pci@0/pci@1/pci@0/usb@0,1 (ohci1): Connecting device on port 1 failed
/pci@400/pci@0/pci@1/pci@0/usb@0,2 (ehci0): Connecting device on port 2 failed
```

Workaround: You can ignore these messages.

TABLE 3-1 Hardware and Mechanical Issues

CR ID	Description	Workaround
6901327	In Solaris 10 10/09, after the RAID 1 build, label information may fail to be written correctly.	1. Start the Solaris OS with single user mode, or from the SunInstaller. When booting from the SunInstaller, terminate the SunInstaller once. 2. Use the `format -e` command to execute the following 2-1 to 2-3. 2-1) Label the target disk with SMI label. 2-2) Label the target disk with EFI label. 2-3) Label the target disk with SMI label.
6823163	In servers with 8- and 16-disk backplanes, the 32GB SATA SSD drive may not install in some drive bay slots.	1. Loosen all the screws on the backplane. 2. Install SSDs in the corner drive bays. 3. Tighten all backplane screws. 4. Install remaining SSDs (if any).
6793093	When using a Type 6 keyboard attached directly to the server, the server might hang during initial boot.	Only Type 7 keyboards are supported for local connections. Do not use any other keyboard type.
6713773 6724347	A fault in the XAUI card causes the built-in Ethernet port to be unusable. If, in an environment where an XAUI card is installed, the XAUI card becomes faulty, not only the XAUI card, but also the built-in Ethernet port (component name MB/GBE) is disabled during a POST run. As a result, the built-in Ethernet port becomes unusable.	None. For display samples and recovery procedure, see "A Fault in the XAUI Card Causes the Built-in Ethernet Port to Be Unusable (CR 6713773, 6724347)" on page 30.
6706976	At write to CD/DVD media, there may be cases where the writing speed may not reach the maximum speed supported by the CD/DVD drive. Even if the maximum operation is not reached, there are no problems in the processing for writing to the CD/DVD media.	Use the media as is.
6687915 6687916	Components inside the chassis get hot and some components have sharp edges.	When servicing the server, be careful working inside the chassis. For example, let the server cool down for a few minutes before performing service procedures, and avoid contact with the heat sink on the motherboard.
6677336	When removing or replacing the air duct, the capacitor on the DC to DC converter can be damaged.	Use care not to hit or shock components on the motherboard while removing or replacing the air duct.

TABLE 3-1 Hardware and Mechanical Issues *(Continued)*

CR ID	Description	Workaround
6668745	The DC output value reported by the ILOM `V_DC_MAIN` and `OUTPUT_POWER` properties (or by the ALOM compatibility shell's `showpower -v` and `showenvironment` commands) for power supplies in SPARC Enterprise T5240 server is incorrect. The reported value is 87.5% of the actual value. This issue does not affect SPARC Enterprise T5140 server.	
6654466	DRAM scrub errors can occur without producing error reports.	
6651885	A kernel panic can occur under any of four rare hardware error conditions • IngressHeaderBuffer (IHB) parity error • EgressHeaderBuffer (EHB) parity error • EgressDataBuffer (EDB) parity error • Link-down transition If any of these errors occur, then a software initiated reboot of the domain will fail. The failure symptom will be no that there is no PCI device in the OpenBoot PROM device tree. OpenBoot software will not be able to boot the domain automatically.	Power the system off then power it on again from the service processor. This action permits the automated reboot to proceed normally. A diagnostic process will run, identifying any faulty hardware.
6581309	To use the XVR-300 as a console of the SPARC Enterprise T5xx0, patch 137111-01 or later must be applied. If the patch is applied after the OpenBoot PROM (OBP) variable has been changed to use the XVR-300 as the console, console output will revert to the default ILOM console during the Solaris OS boot sequence.	To use the XVR-300 as a console, apply patch 137111-01 or later to the Solaris OS before changing the OpenBoot PROM variable. Alternatively, install the Solaris OS (or reinstall it) with ILOM set as the console used, and then apply the patch. No GUI can be used during that time. After the patch has been applied, the XVR-300 can be used as the console as soon as the OpenBoot PROM variable is changed.
n/a	An RJ45 cable may sometimes be difficult to disconnect from an RJ45 port of an Ethernet card mounted in the SPARC Enterprise T5140 server.	In this event, disconnect the cable while keeping the RJ45 cable connector tab depressed, such as with a plastic card.
n/a	XAUI card disables an On-board network port. For details, see "XAUI Card Disables an Onboard Network Port" on page 31.	

TABLE 3-1 Hardware and Mechanical Issues *(Continued)*

CR ID	Description	Workaround
n/a	When the system is initialized, firmware is loaded and occupies approximately 128 MB to 352 MB of the host memory. The banner and other software utilities report an amount of memory minus the amount of memory that is occupied by firmware.	Be aware that the banner reports the amount of memory less the amount used by the firmware.
n/a	The On/Standby portion of the service label contains an error. It says to press and hold the On/Standby button for "5 seconds". It should say "4 seconds".	**Note** -- This error appears on all SPARC Enterprise T5140 and T5240 server configurations.
n/a	Two illustrations in the service label show the top cover button in the wrong location. The button is near the right edge of the server.	**Note** -- This error appears on all SPARC Enterprise T5140 and T5240 servers.
n/a	The portion of the service label that cautions about the weight of the server gives the wrong weight. It should say "42 lb" and "19 kg".	**Note** -- This error appears on SPARC Enterprise T5140 server configurations.
n/a	In the Interior Service Label CRU and FRU Procedures portion of the service label, the letters "PBD" should say "PDB".	**Note** -- This error appears on all SPARC Enterprise T5140 and T5240 servers.
n/a	The FM Status Indicator portion of the service label has an erroneous statement. Where it says, "In front of FM on FanBD" it should say, "on top of FM".	**Note** -- This error appears on SPARC Enterprise T5240 server configurations.
n/a	The drawing showing the cable management arm being rotated represents the wrong server model. It should show the SPARC Enterprise T5240 server.	**Note** -- This error appears on SPARC Enterprise T5240 server configurations.
n/a	The shapes of anti-tilt legs shown on service labels may be different, depending on racks.	**Note -** This error appears on all SPARC Enterprise T5140 and T5240 servers.
n/a	When a disk failure occurred in a RAID 0 configuration, the failed disk cannot be identified.	Do not use RAID 0.
n/a	After the build and the deletion of RAID 1, disk device may not be recognized correctly.	It becomes recognized correctly after the server reboot.

n/a	A faulty USB port constantly asserts and deasserts itself. This condition produces errors in the system log, such as the following:
	`Current : /MB/I_USB1 : Predictive Failure Asserted`
	`Current : /MB/I_USB1 : Predictive Failure Deasserted`
		None.

A Fault in the XAUI Card Causes the Built-in Ethernet Port to Be Unusable (CR 6713773, 6724347)

A fault in the XAUI card causes the built-in Ethernet port to be unusable.

If, in an environment where an XAUI card is installed, the XAUI card becomes faulty, not only the XAUI card, but also the built-in Ethernet port (component name MB/GBE) is disabled during a POST run. As a result, the built-in Ethernet port becomes unusable.

Display samples on the host:

```
T5140, No Keyboard
Copyright 2008 Sun Microsystems, Inc.  All rights reserved.
OpenBoot 4.28.6, 32544 MB memory available, Serial #XXXXXXXX.
Ethernet address XX:XX:XX:XX:XX:XX, Host ID: XXXXXXXX.

ERROR: The following devices are disabled:
    MB/RISER1/XAUI1     *The number varies with the layout.
    MB/GBE      *The built-in Ethernet port is disabled.


{0} ok
{0} ok show-nets        *No longer displayed because the built-in Ethernet port is faulty.
{0} ok
```

Display samples on the service processor:

```
-> show faulty
Target               | Property                | Value
---------------------+-------------------------+---------------------------------
-
/SP/faultmgmt/0      | fru                     | /SYS/MB/RISER1/XAUI1
/SP/faultmgmt/0      | timestamp               | Jun 10 13:02:34
/SP/faultmgmt/0/     | timestamp               | Jun 10 13:02:34
 faults/0            |                         |
/SP/faultmgmt/0/     | sp_detected_fault       | /SYS/MB/RISER1/XAUI1 Disabled
 faults/0            |                         | by CLI action.
/SP/faultmgmt/1      | fru                     | /SYS/MB
/SP/faultmgmt/1      | timestamp               | Jun 10 13:09:25
/SP/faultmgmt/1/     | timestamp               | Jun 10 13:09:25
 faults/0            |                         |
/SP/faultmgmt/1/     | sp_detected_fault       | /SYS/MB/GBE Forced fail (POST)
 faults/0            |                         |* The built-in Ethernet port is
                                                  faulty.
```

Workaround: None.

Recovery procedure: Replace the XAUI card by using the following procedure:

[Using ILOM command mode]

1. **Execute** `stop /SYS`**.**
2. **Delete the XAUI and GBE components from the asr-db blacklist.**

   Execution example:

```
-> set /SYS/MB/RISER1/XAUI1 component_state=enabled
-> set /SYS/MB/GBE component_state=enabled
```

3. **Disconnect the power cord from the AC outlet.**
4. **Replace the XAUI card.**
5. **Connect the power cord to the AC power source.**

[Using ALOM CMT compatible shell]

1. **Execute the** `poweroff` **command.**
2. **Delete the XAUI and GBE components from the asr-db blacklist.**

   Execution example:

```
sc> enablecomponent /SYS/MB/RISER1/XAUI1
sc> enablecomponent /SYS/MB/GBE
```

   Alternatively, execute the `clearasrdb` command.

3. **Disconnect the power cord from the AC outlet.**
4. **Replace the XAUI card.**
5. **Connect the power cord to the AC power source.**

XAUI Card Disables an Onboard Network Port

Installing a 10GbE XFP XAUI Adapter Card (XAUI card) in slot 0 disables on-board network port 1 (NET1)(*1). Installing the XAUI card in slot 1 disables on-board network port 0 (NET0)(*2).

FIGURE 3-1 XAUI cards and on-board network ports

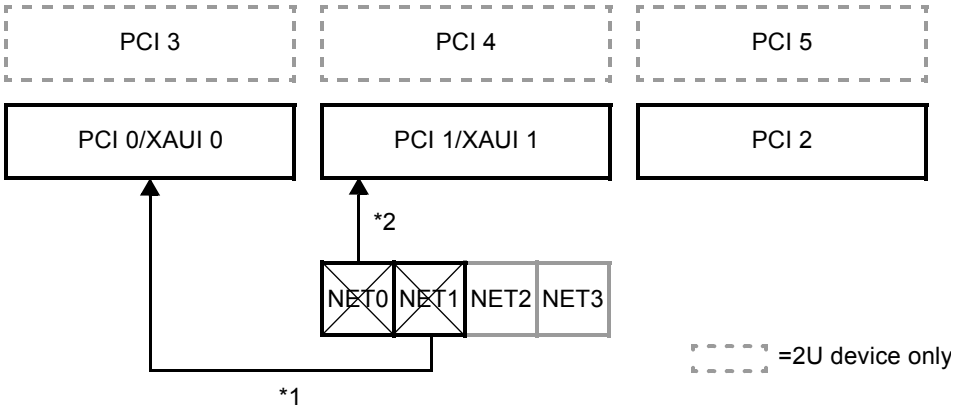


TABLE 3-2 Network Ports and Device Names

On-board network	XAUI Slot	Device name
NET 0	XAUI 1	nxge0
NET 1	XAUI 0	nxge1

Solaris OS Issues

This section describes Solaris OS issues known to exist at this release of the SPARC Enterprise T5140 and T5240 servers.

TABLE 3-3 Solaris OS Issues

CR ID	Description	Workaround
6836653	USB SATA DVD drive is not supported for the following versions of the Solaris OS: • Solaris 10 8/07 OS • Solaris 10 5/08 OS **Note -** USB SATA DVD drive is supported for the later versions of the Solaris 10 OS, beginning with Solaris 10 10/08 OS.	To install Solaris 10 8/07 OS or Solaris 10 5/08 OS on a server equipped with a USB SATA DVD drive, install the Solaris OS from the install server and apply the mandatory patches, the latest periodic PTF, and the latest recommended security patches. For the installation procedures, see "Notes on Installing Solaris 10 8/07 OS and Solaris 10 5/08 OS" on page 34. To confirm whether a USB SATA DVD drive is mounted on your server, see "To Confirm Whether a USB SATA Drive Unit Is Mounted" on page 35.
n/a	While booting SPARC Enterprise T5240 server (16 HDD type), mpt driver outputs the following WARNING message: `Encode devid failed for path target:##, lun:#, SAS address:################`	This message shows the failure in the setting of the SES device installed in SPARC Enterprise T5240 server (16 HDD type). Because this device is not used, you can ignore this message.

n/a	In SPARC Enterprise T5140 and T5240 servers, when rebooting is repeatedly executed, the following WARNING messages might be stored in /var/adm/messages.
	`px: [ID 781074 kern.warning] WARNING: px0: spurious interrupt from ino 0x13`
	`px: [ID 548919 kern.info] su-0#0`
	`px: [ID 100033 kern.info]`
		This message shows that interrupt without the reason was detected when su (serial port) driver processes interrupt.
		Because this message doesn't influence the system, you can disregard this message.

n/a	System shutdown may fail.	Do not attempt a shutdown before boot processing is completed. Start shutdown processing after ensuring that boot processing is completed or waiting for an adequate period of time (at least 10 minutes).

Notes on Installing Solaris 10 8/07 OS and Solaris 10 5/08 OS

USB SATA DVD drive is not supported for the Solaris 10 8/07 OS and Solaris 10 5/08 OS. To install Solaris 10 8/07 OS or Solaris 10 5/08 OS on a server equipped with a USB SATA DVD drive, install the Solaris OS from the install server and apply the mandatory patches, the latest periodic PTF, and the latest recommended security patches.

When installing the Solaris 10 8/07 OS, follow the patch application procedure which is stored in the Operating System Patch Recovery CD attached to the server and apply the patches to the install image before the installation.

When installing the Solaris 10 5/08 OS, there are no patches you should apply to the install image.

The procedure is shown below.

1. Create an install image on the install server.

Example:

This example assumes the DVD medium has been mounted to '/cdmnt'.

```
# mkdir -p /export/home/dvd
# cd /cdmnt/Solaris_10/Tools
# ./setup_install_server /export/home/dvd
# share |grep /export/home/dvd
# share -F nfs -o ro,anon=0 -d "install server directory" /export/home/dvd
# svcs -l svc:/network/nfs/server:default
# svcadm enable svc:/network/nfs/server
# shareall
# cd /
# eject cdrom
```

2. Apply the patches to the install image.

When installing the Solaris 10 5/08 OS, proceed to Step 3. There are no patches you should apply to the install image.

- In case of Solaris 10 8/07 OS

  Follow the patch application procedure which is stored in the Operating System Patch Recovery CD attached to the server and apply the patches to the install image.

```
# LANG=C;export LANG
# cd /export/home/dvd
# patchadd -C ./Solaris_10/Tools/Boot /cdmnt/Solaris_10/Patches/125369*
# patchadd -C ./Solaris_10/Tools/Boot /cdmnt/Solaris_10/Patches/125476*
# patchadd -C ./Solaris_10/Tools/Boot /cdmnt/Solaris_10/Patches/127111*
```

```
# cp -R /cdmnt/Solaris_10/Patches/* Solaris_10/Patches
# ls Solaris_10/Patches
124235-02 125369-13 125416-06 125476-02 126434-05 127111-08
```

3. **Install the Solaris OS from the install server.**

4. **Apply the latest periodic PTF and the latest recommended security patches.**

   The mandatory patches which are described in the "Patch Information" on page 10 are collected into the periodic PTF R08111 or later. From the viewpoint of preventive maintenance, apply the latest periodic PTF and the latest recommended security patches.

   To apply the minimum mandatory patches only, apply the patches in the following order.

   - In case of Solaris 10 8/07 OS

```
# LANG=C;export LANG
# patchadd 119254-51
# patchadd 125891-01
# patchadd 127755-01
# patchadd 127127-11
# patchadd 137111-01
```

   - In case of Solaris 10 5/08 OS

```
# LANG=C;export LANG
# patchadd 138048-01
# patchadd 137111-01
```

5. **Restart the Solaris OS.**

```
# shutdown -i6 -g0 -y
```

To Confirm Whether a USB SATA Drive Unit Is Mounted

For servers shipped after September 2009, the USB SATA DVD drive unit has been mounted. Confirm whether a USB SATA DVD drive unit is mounted on your server by using either of the following methods.

- Confirm that the "SATA DVD" mark appears on the front side of the DVD drive.
- Confirm that specific part numbers are displayed in the output for the following ILOM/ALOM commands.

[Using ILOM command mode]

Confirm whether either of the following part numbers is displayed in the output from `ls /SYS/PADCRD` command.

```
fru_part_number = 5413512
```

or

```
fru_part_number = 5413513
```

[Using ALOM CMT compatible shell]

Confirm whether either of the following part numbers is displayed in the output from `showfru /SYS/PADCRD` command.

```
/Partner_Part_NumberR/Partner_Part_Number: CF005413512REVxx
```

or

```
/Partner_Part_NumberR/Partner_Part_Number: CF005413513REVxx
```

Firmware and General Software Issues

The following are known firmware and general software issues.

TABLE 3-4 Firmware and General Software Issues

CR ID	Description	Workaround
7110871	When you change "`/SP/services/https weak_ciphers`" from `disabled` to `enabled`, or change it from `enabled` to `disabled`, you may fail in restarting the ILOM Web service. When this event occurred, it becomes unable to connect to BUI of ILOM.	None. To recover from this event, reset ILOM.

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

7046705	While the system is in operation, there may be an intermittent output of a message about the PSU sensor which redetected the input power in the Solaris OS system log (`/var/adm/messages`). At this time, the ILOM status check command (`show faulty`) displays normal status.
	Event example:
	`Jan 5 23:34:52 xxxxxxx SC Alert: [ID 494714 daemon.alert] IPMI | critical: ID = 116 : 01/05/2011 : 23:34:51 : Voltage : /PS1/AC_POK : State Deasserted`
	`Jan 5 23:34:57 xxxxxxx SC Alert: [ID 210946 daemon.notice] IPMI | minor: ID = 117 : 01/05/2011 : 23:34:57 : Voltage : /PS1/AC_POK : State Asserted`
	
	The `show faulty` command example:
	`-> **show faulty**`
	`Target | Property | Value`
	`----------+--------------+-------------`
	
	`->`
		None.
		In the firmware PSU monitoring, the relevant PSU sensor may sensitively detect the ignorable fluctuation of input power in some cases, which results in the relevant message output. Therefore, the relevant message can be safely ignored.

7020694	In SPARC Enterprise T5140 server equipped with System Firmware 7.3.0.c or earlier and power distribution boards with part number CF00511-1604, ILOM identifies the wrong PSU when there is PSU failure.	Use the ILOM `show /SYS/PDB` command to view the part number of the power distribution board on your server. On servers equipped with System Firmware 7.3.0.c or earlier and power distribution boards with part number CF00511-1604, identify which PSU is faulted by looking at the PSU LEDs, instead of relying on the ILOM event log.

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

6932448	Messages referring to hot insertions/removals of devices including a nonexistent device are displayed at power on if the system has had a system initialization, firmware upgrade, or system component change.
	Message example:
	`Chassis | major: Hot insertion of /SYS/MB/CMP0/P0`
	or
	`SC Alert: [ID 639621 daemon.error] SC unretrieved msg: [Chassis | major: Hot insertion of /SYS/MB/CMP0/P3]`
	
	`Chassis | major: Hot removal of HDD3`
	or
	`SC Alert: [ID 677427 daemon.error] SC unretrieved msg: [Chassis | major: Hot removal of HDD3]`
		None.
		Those messages are displayed when the ILOM firmware recognizes the system configuration at system initialization, firmware upgrade, or system component change. You can ignore the messages.

6913388	The ILOM event log may not be in the Solaris OS system log output (/var/adm/messages).
	ILOM login event example:
	`Nov 7 14:13:03 xxxxxx SC Alert: [ID 178418 daemon.notice] Audit | minor: admin : Open Session :`
	`object = /session/type : value = shell : success`
	`Nov 7 14:13:04 xxxxxx SC Alert: [ID 434268 daemon.notice] Audit | minor: admin : Close Session :`
	`object = /session/type : value = shell : success`
		None.
		Perform the ILOM reset operation. If not recovered, shut down the system and then remove and insert the power cord.
		ILOM reset operation example:
		Log in to ILOM and execute the following command.
		[Using ILOM command mode]
		`-> **reset /SP**`
		`Are you sure you want to reset /SP (y/n)? **y**`
		[Using ALOM CMT compatible shell]
		`sc> **resetsc**`
		`Are you sure you want to reset the SC [y/n]? **y**`

6856391	When the host is powered off, the value of ambient temperature sensor (`MB/T_AMB`) is not correctly displayed in the output of `showenvironment` command.	None. This issue can be ignored.

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

6849287	When powering on the system, there may be an output message to show that the memory sensor (VMEMR/VMEML) or the CPU core sensor (VCORER/VCOREL) detected an excess of the voltage over the threshold value of non-critical level.
	Message Example:
	`Jun 10 04:58:31: IPMI |minor :`
	`"ID = dcd : 06/10/2010 : 04:58:31 :`
	`Voltage : /MB/V_VMEMR : Upper Non-critical`
	`going high : reading 1.84 >= threshold 1.66 Volts`
	
	`Jun 10 04:59:17: IPMI |minor :`
	`"ID = dd6 : 06/10/2010 : 04:58:44 :`
	`Voltage : /MB/V_VMEMR : Upper Non-critical`
	`going low : reading 1.60 <= threshold 1.66 Volts"`
	
	`Jun 10 06:04:52: IPMI |minor :`
	`"ID = de7 : 06/10/2010 : 06:04:52 :`
	`Voltage : /MB/V_VCOREL : Upper Non-critical`
	`going high : reading 1.21 > = threshold 1.21 Volts"`
	
	`Jun 10 06:05:36: IPMI |minor :`
	`"ID = df0 : 06/10/2010 : 06:05:05 :`
	`Voltage : /MB/V_VCOREL : Upper Non-critical`
	`going low : reading 1.16 < = threshold 1.21 Volts"`
		None.
		This is not a problem as far as the value has been restored to normal after detected the message of an excess voltage over the threshold value.

6842745	The `prtdiag` command doesn't show the correct memory configuration in the output, in the configuration with different memory capacities. For the output example, see "The `prtdiag` Command Doesn't Show the Correct Memory Configuration in the Output, in the Configuration with Different Memory Capacities (CR 6842745)" on page 43.	None. Please check that the memory size is equal to the mounted memory size.

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

6835866
6857524
6858176
	The value of power consumption shown by /SYS/VPS (/SYS/VPS value) may exceed the threshold value. At this time, an event log as shown below will be collected.
	
	Event log example:
	`4368  Mon Jun 29 23:53:39 2009  IPMI Log  major`
	`ID =  e1f : 06/29/2009 : 23:53:39 : Power Unit : /SYS/VPS : Upper Critical going high : reading 1480.90 > threshold 1215.40 Watts`
	
	And when the power consumption value (/SYS/VPS value) has come back to under the threshold, it may display an abnormal value.
	
	Abnormal value display example:
	`4369  Mon Jun 29 23:54:28 2009  IPMI Log  minor`
	`ID =  e20 : 06/29/2009 : 23:54:28 : Power Unit : /SYS/VPS : Upper Critical going low  : reading 0 < threshold 1215.40 Watts`
		None.
		The value of power consumption shown by /SYS/VPS is given as an indication.
		For the right value of power consumption, see /SP/powermgmt/actual_power.
		Therefore, the collected event log can be safely ignored.

6823561	In the back up and restore functions of ILOM settings, you cannot set "https" to the protocol for data transfer (`transfer_method property`).
	
	Example:
	`-> set dump_uri= https://ipaddres/directory/filename`
	`set: Unable to transfer image, please check URI`
		None.
		Use other protocols (tftp, ftp, sftp, scp, http).

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

6591634	During OpenBoot PROM at the system start, when you execute a forced dump order from ILOM, a FATAL error message appears in the console log and the following boot order fails.
	
	Event example:
	`{0} ok`
	`FATAL: /virtual-devices@100/console@1:`
	`Last Trap: Non-Resumable Error`
	`:`
	`:`
	`{0} ok boot`
	`FATAL: system is not bootable, boot command is disabled`
		To recover this event, power off and then power on the system.
		When OpenBoot PROM became no response, execute a break order, not a forced dump order, from ILOM. If not recovered by the break order, power off and then power on the system.

n/a	In an environment where the keyboard has been connected to the USB port of the server, when you restarted Solaris OS, OpenBoot PROM may output the "`Failed to set idle`" message to the console log.
	Event example:
	`# /usr/sbin/shutdown -i6 -y -g0`
	`:`
	`Resetting...`
	`Failed to set idle  <--`
	
	`SPARC Enterprise T5120, Keyboard Present`
	`Copyright (c) 1998, 2011, Oracle and/or its affiliates. All rights reserved.`
		None.
		Due to the OpenBoot PROM issue, there is a problem in the data reference after the idle setting to the USB keyboard has been completed. Therefore, this has no impact on the server and the connected USB keyboard. The output message can be safely ignored.

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround

n/a	Regardless of whether a built-in fan is mounted or not, its error may erroneously be detected and the following error message may be displayed in the machine administration of Enhanced Support Facility (ESF) and in Server System Manager (SSM).
	
	ESF message example
	`FJSVmadm:A:PS0:FJSVmadm:Detected failure on the power supply unit`
	
	SSM message example
	`SSMAPL:A::FJSVapplg::status was changed. (component:"PS0" from "normal" to "fatal")`
	
	As far as the ILOM status check command (the `show faulty` command) result is normal, it has no impact on system.
		When it is erroneously detected in ESF, apply the Enhanced Support Facility 3.0 machine administration patch 914718-01 or later.
		
		When it is erroneously detected in SSM, apply the Server System Manager patch (FJSVapagt patch) 914667-05 or later.

n/a	The Solaris OS system log may contain the ILOM firmware output message "PCM Initialize event detected," which is unnecessary. Message example `SC Alert: [ID 203687 daemon.notice] Chassis | minor: PCM Initialize event detected`	None. No impact on system. The output message can be safely ignored.

n/a	From Solaris OS, when you use the System Firmware download command (`sysfwdownload`) to perform the ILOM firmware updates, the update may fail with the following output message.
	
	Example of update failure
	`# ./sysfwdownload Sun_System_Firmware-7_1_3_d-SPARC_Enterprise_T5120+T5220.pkg`
	`sysfwdownload: send/receive failed(2) - "ret = -7"`
	`#`
		None.
		Perform the ILOM reset operation and then perform the ILOM firmware update again.

TABLE 3-4 Firmware and General Software Issues *(Continued)*

CR ID	Description	Workaround
n/a	In the environment where the Cisco Catalyst switch series manufactured by Cisco Systems are connected with the ILOM network management port (NET-MGT), when you execute the switching restart or the enable/disable operation of the network port, the Cisco Catalyst switch and the ILOM network port LEDs may not turn on, and the network linkup fails. Due to this, access to ILOM using protocols such as SSH (Secure Shell) fails.	Use the Cisco IOS software 12.2(53)SG / 12.2(46)SE version or later. In case that the 12.2(53)SG / 12.2(46)SE version or later cannot be applied, you can install other hub/switch between the Cisco Catalyst switch and the ALOM/ILOM network management port to avoid this event. It is already confirmed that this event can be avoided using the switching hub manufactured by Fujitsu. Perform the ILOM reset operation.

The `prtdiag` Command Doesn't Show the Correct Memory Configuration in the Output, in the Configuration with Different Memory Capacities (CR 6842745)

The `prtdiag` command doesn't show the correct memory configuration in the output, in the following memory configuration:

```
CMP0/Branch0   1.55V 2GB DIMMx4
    /Branch1   1.55V 2GB DIMMx4
CMP1/Branch0   1.55V 4GB DIMMx4
    /Branch1   1.55V 4GB DIMMx4
```

It shows the memory size (48928 Megabytes) correctly.

Output example:

```
# prtdiag -v
System Configuration:  Sun Microsystems  sun4v SPARC Enterprise T5240
Memory size: 48928 Megabytes
:
:
====================== Physical Memory Configuration ========================
Segment Table:
------------------------------------------------------------
Base           Segment  Interleave  Bank     Contains
```

```
Address         Size     Factor      Size     Modules
-----------------------------------------------------------
0x0             32 GB    8           4 GB     MB/CMP0/BR0/CH0/D0
                                                MB/CMP0/BR0/CH1/D0
                                     4 GB     MB/CMP0/BR1/CH0/D0
                                                MB/CMP0/BR1/CH1/D0
                                     4 GB     MB/CMP1/BR0/CH0/D0
                                                MB/CMP1/BR0/CH1/D0
                                     4 GB     MB/CMP1/BR1/CH0/D0
                                                MB/CMP1/BR1/CH1/D0
                                     4 GB     MB/CMP0/BR0/CH0/D1
                                                MB/CMP0/BR0/CH1/D1
                                     4 GB     MB/CMP0/BR1/CH0/D1
                                                MB/CMP0/BR1/CH1/D1
                                     4 GB     MB/CMP1/BR0/CH0/D1
                                                MB/CMP1/BR0/CH1/D1
                                     4 GB     MB/CMP1/BR1/CH0/D1
                                                MB/CMP1/BR1/CH1/D1

0x840000000     1 GB     4           256 MB   MB/CMP0/BR0/CH0/D0
                                                MB/CMP0/BR0/CH1/D0
                                     256 MB   MB/CMP0/BR1/CH0/D0
                                                MB/CMP0/BR1/CH1/D0
                                     256 MB   MB/CMP0/BR0/CH0/D1
                                                MB/CMP0/BR0/CH1/D1
                                     256 MB   MB/CMP0/BR1/CH0/D1
                                                MB/CMP0/BR1/CH1/D1

0x8c0000000     1 GB     4           256 MB   MB/CMP0/BR0/CH0/D0
                                                MB/CMP0/BR0/CH1/D0
                                     256 MB   MB/CMP0/BR1/CH0/D0
                                                MB/CMP0/BR1/CH1/D0
                                     256 MB   MB/CMP0/BR0/CH0/D1
                                                MB/CMP0/BR0/CH1/D1
                                     256 MB   MB/CMP0/BR1/CH0/D1
                                                MB/CMP0/BR1/CH1/D1

0x940000000     1 GB     4           256 MB   MB/CMP0/BR0/CH0/D0
                                                MB/CMP0/BR0/CH1/D0
                                     256 MB   MB/CMP0/BR1/CH0/D0
                                                MB/CMP0/BR1/CH1/D0
                                     256 MB   MB/CMP0/BR0/CH0/D1
                                                MB/CMP0/BR0/CH1/D1
                                     256 MB   MB/CMP0/BR1/CH0/D1
                                                MB/CMP0/BR1/CH1/D1
:
:
#
```

Workaround: None. Please check that the memory size is equal to the mounted memory size.

Oracle VM Server for SPARC Issues

For the issues about Oracle VM Server for SPARC (Formerly, called Logical Domains of LDoms), see the *SPARC Enterprise Oracle VM Server for SPARC Important Information*.

CHAPTER 4

Documentation Errata

This chapter describes known errors and corrections to the SPARC Enterprise T5140 and T5240 server documentation.

SPARC Enterprise T5140 and T5240 Servers Site Planning Guide

Erroneous Description in "Minimum Clearance for Service Access"

The text in "Minimum Clearance for Service Access" on page 2 contains an error.

The correct text is as follows:

The SPARC Enterprise T5140 and T5240 servers require physical access from the top for maintenance. Therefore, a stepladder may be required depending on which rack the server is installed in. And it may be necessary to remove the server from the rack depending on the component to be replaced.

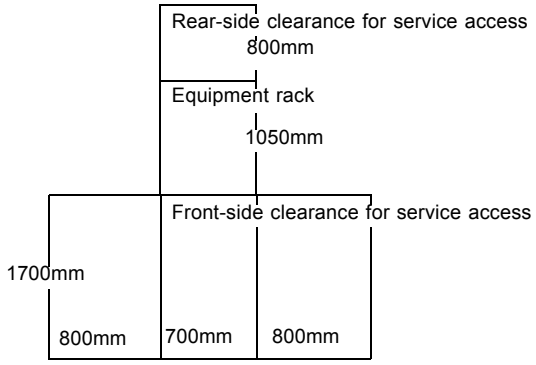
The minimum clearance for service access varies depending on whether a stepladder is used. Secure an appropriate clearance for service access before starting maintenance.

This section shows the minimum clearance for service access premised on the standard maintenance work of our company. If this minimum clearance cannot be secured, contact our field engineer.

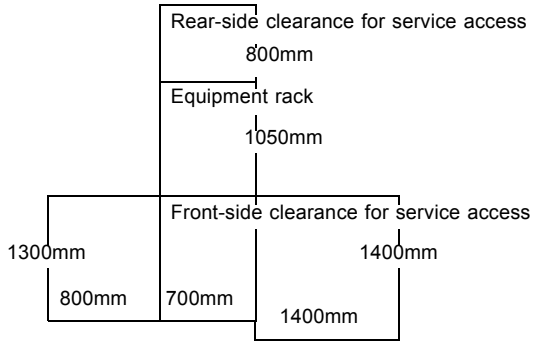
No stepladder is required if this server is installed at the 20U level or lower. A stepladder is required if it is installed at the 21U level or higher. FIGURE 4-1 shows the minimum clearance for service access required for either server.

FIGURE 4-1 Minimum Clearance for Service Access

1. If the server is installed at the 20U level or lower (*1): (*1 Judged based on the level of the equipment top)



2. If the server is installed at a level between 21U and 40U (*1): (*1 Judged based on the level of the equipment top)



Incorrect Operating Input Voltage Range for DC Input Models

The Power Source Requirements section of the *SPARC Enterprise T5140 and T5240 Site Planning Guide* contains tables that identify power specifications for various server configurations. The operating input voltage range for DC input models indicated in each table is incorrect. The correct value is as follows:

General Specifications(DC Input Models)	Incorrect	Correct
Operating input voltage range (input voltage tolerance +/- 10%)	-40 — -75 VDC	-48 — -60 VDC

Also, the maximum operating input current and maximum operating input power indicated in each table were the values at -48 VDC, not at -40VDC.

General Specifications(DC Input Models)	Incorrect	Correct
Maximum operating input current	At -40VDC: xx.x A	At -48VDC: xx.x A
Maximum operating input power	At -40VDC: xxxx.x W	At -48VDC: xxxx.x W

Incorrect Values for Idle Input Power Requirements in Minimum Server Configurations

The Power Source Requirements section of the *SPARC Enterprise T5140 and T5240 Site Planning Guide* contains tables that identify power specifications for various server configurations. These specifications include values for idle power use in minimum server configurations. That is, server configurations that have the smallest amount of memory possible as well as no hard drives and no PCIe I/O cards installed.

The idle power values in the published version of the Site Planning Guide are incorrect because they were calculated based on servers with one hard drive installed instead of no hard drives. Consequently, the idle power value for each configuration is too high by 8 Watts. The following table provides the correct values (as well as the current incorrect values) for each SPARC Enterprise T5140 and T5240 server configuration.

Configurations Described by Tables	Incorrect Idle Input Power Value (AC source)	Correct Idle Input Power Value (AC source)	Incorrect Idle Input Power Value (DC source)	Correct Idle Input Power Value (DC source)
T5140, 1.2 GHz CPU, 4-disk backplane	287.0 W	279.0 W	268.1 W	260.1 W
T5140, 1.2 GHz CPU, 8-disk backplane	287.0 W	279.0 W	N/A	N/A
T5140, 1.4 GHz CPU, 4-disk backplane	329.0 W	321.0 W	N/A	N/A
T5240, 1.2 GHz CPU, 8-disk backplane	315.0W	307.0W	294.2 W	286.2W
T5240, 1.4 GHz CPU, 8-disk backplane	360.0 W	352.0 W	336.6 W	328.6 W
T5240, 1.4 GHz CPU, 16-disk backplane	360.0 W	352.0 W	336.6 W	328.6 W
T5240, 1.6 GHz CPU, 8-disk backplane	418.0 W	410.0 W	390.4 W	382.4 W
T5240, 1.6 GHz CPU, 16-disk backplane	418.0 W	410.0 W	390.4 W	382.4 W

Incorrect Operating Input Voltage Values for the 1.4 GHz, 8-Disk Configuration

The table that describes input power requirements for the SPARC Enterprise T5240 server configuration with 1.4 GHz CPUs and an 8-disk capable backplane states the wrong operating input voltage value in two places. The following table describes the necessary correction.

Location of Incorrect Values	Incorrect Value	Correct Value
Table for T5240 Server, 1.4 GHz CPU, 8-disk backplane		
Operating input voltage range	200 to 240 VAC	100 to 240 VAC
Maximum operating input power	At 200VAC 1161.1W	At 100VAC 1161.1W

Note – The operating input voltage range for the DC input model is correct.

Note – The 200 to 240 VAC operating input voltage range is required only for servers equipped with 16-disk capable backplanes. All other configurations support the 100 to 240 VAC operating voltage range.

Incorrect Operating Input Power and Heat Dissipation for the 1.4 GHz, 16-Disk Configuration

The table that describes input power requirements for the SPARC Enterprise T5240 server configuration with 1.4 GHz CPUs and an 16-disk capable backplane states some wrong values for DC input model. The following table describes the necessary correction.

Location of Incorrect Values	Incorrect Value	Correct Value
Table for T5240 Server, 1.4 GHz CPU, 16-disk backplane		
Maximum operating input power	At -40 VDC: 1030.4 W	At -48 VDC: 1130.4 W
Maximum heat dissipation	3857.23 BTU/hour (3753.1 KJ/hour)	3857.1 BTU/hour (4069.4 KJ/hour)

Incorrect Operating Input Voltage Values for the 1.6 GHz, 8-Disk Configuration

The table that describes input power requirements for the SPARC Enterprise T5240 server configuration with 1.6 GHz CPUs and an 8-disk capable backplane states the wrong operating input voltage value in two places. The following table describes the necessary correction.

Location of Incorrect Values	Incorrect Value	Correct Value
Table for T5240 Server, 1.6 GHz CPU, 8-disk backplane		
Operating input voltage range	200 to 240 VAC	100 to 240 VAC
Maximum operating input current	At 100 VAC: <n/a>	At 100 VAC: 14.0A

Note – The operating input voltage range for the DC input model is correct.

Note – The 200 to 240 VAC operating input voltage range is required only for servers equipped with 16-disk capable backplanes. All other configurations support the 100 to 240 VAC operating voltage range.

SPARC Enterprise T5140 and T5240 Servers Installation Guide

This manual includes descriptions using the cable management arm (CMA); however, the SPARC Enterprise T5140 server doesn't support the cable management arm.

Verify Proper Seating of Preinstalled PCIe/XAUI Cards

The server installation procedure should include instructions for verifying that any preinstalled PCIe and/or XAUI cards and their risers have not worked loose during shipping. This procedure should also include instructions for verifying that internal cables are properly routed and that their connections are secure.

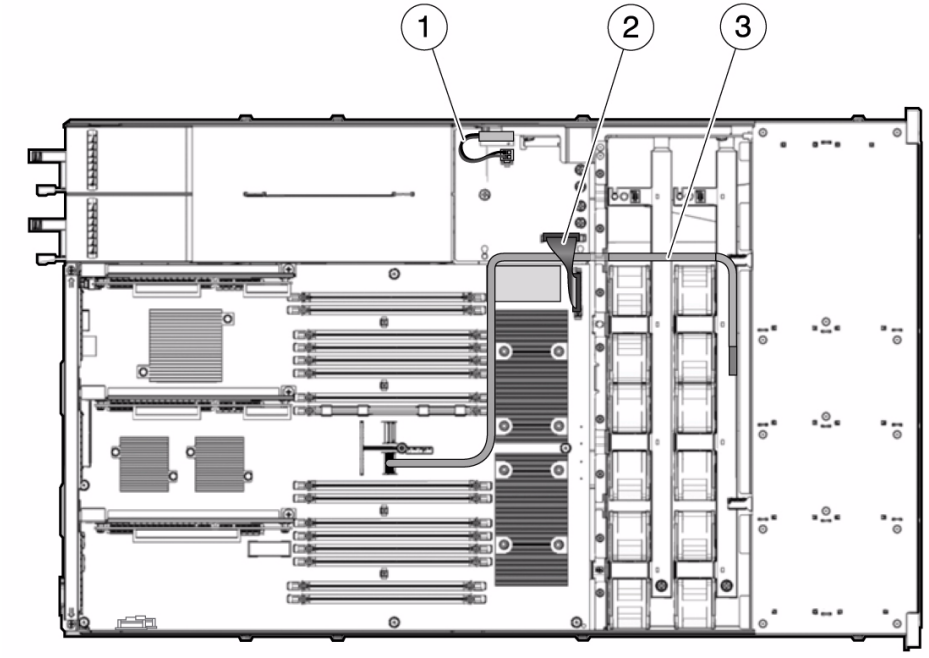
Workaround: When installing a newly arrived server that has preinstalled PCIe and/or XAUI cards, open it and verify that the cards and their risers are securely seated. Also verify that the internal cables are correctly routed and securely connected. Refer to the *SPARC Enterprise T5140 and T5240 Servers Service Manual* for information about the PCIe/XAUI cards and their risers as well as information about internal cable routing.

SPARC Enterprise T5140 and T5240 Servers Service Manual

Incorrect Data Cable Routing Diagram for T5140 Servers With 4-Disk Backplanes

The data cable routing diagram for 4-disk capable backplanes is wrong. It shows the cable connected to SAS1. It should be connected to SAS0. This is the correct diagram:

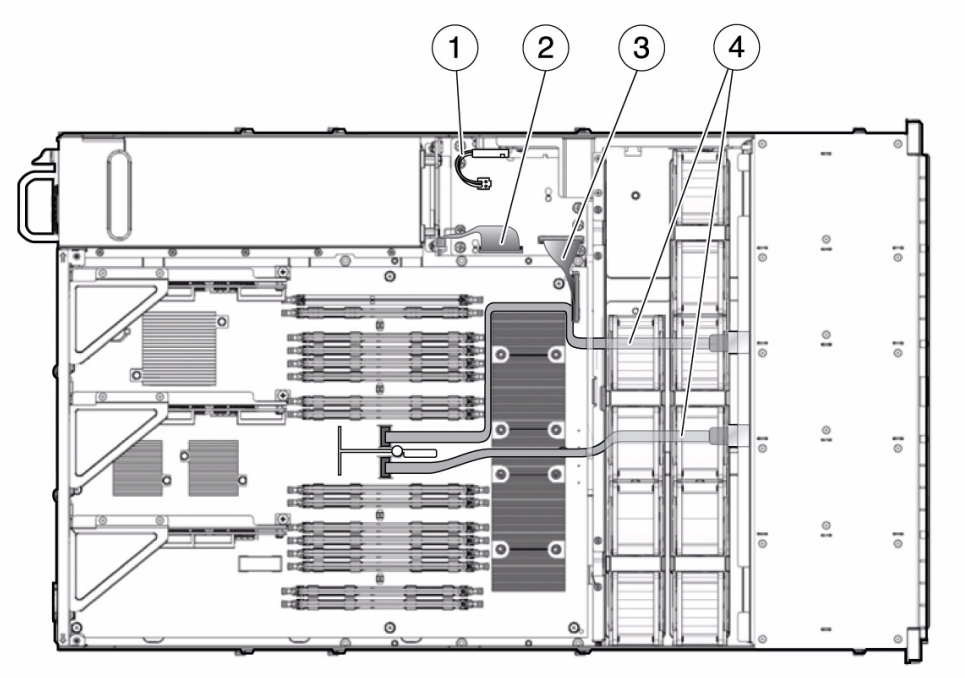
FIGURE 4-1 Internal Cables for the Onboard SAS Controller Card (Four-Disk Capable SPARC Enterprise T5140 Servers)



Incorrect Data Cable Routing Diagram for T5240 Servers With 8-Disk Backplanes

The data cable routing diagram for 8-disk capable backplanes in T5240 servers is wrong. It shows a single data cable. There should be two. This is the correct diagram:

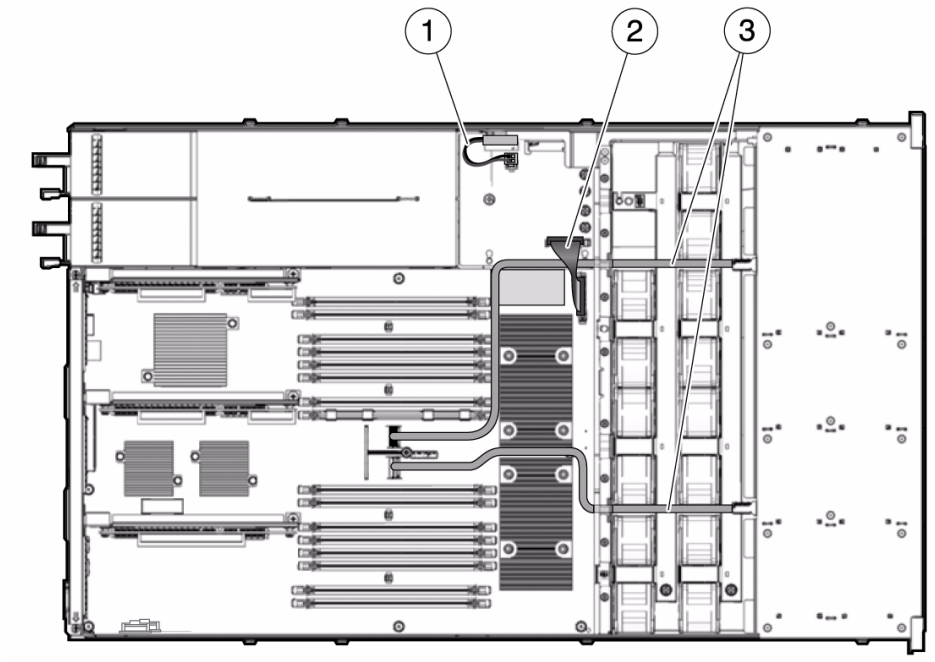
FIGURE 4-2 Internal Cables for Onboard SAS Controller Cards (Eight-Disk Capable SPARC Enterprise T5240 Servers)



Fan Module Missing in Data Cable Routing Diagram

The cable routing diagram for 8-disk capable backplanes in T5140 systems is missing a fan module in the upper right corner. This is the correct diagram:

FIGURE 4-3 Internal Cables for the Onboard SAS Controller Card (Eight-Disk Capable SPARC Enterprise T5140 Servers)



SPARC Enterprise T5140 and T5240 Servers Administration Guide

Incorrect Description in "Devices and Device Identifiers" (CR 6712561)

DB9 serial port, /SYS/TTYA, is indicated in "Devices and Device Identifiers" on page 38, but the /SYS/TTYA can not be unconfigured.

Notes on the "SPARC Enterprise T5x40 Device Tree"

The device tree of the DVD drive indicated on page 39 is not supported for the servers shipped after September 2009. The correct tree is as follows:

- For the servers shipped after September 2009

  /pci@400/pci@0/pci@1/pci@0/usb@0,2/hub@4/device@4/storage@0/disk

Incorrect Description in "Managing Disks - Creating Hardware RAID Volumes ▼ Create a Hardware Mirrored Volume"

The description on page 18 should be modified as the following underlined part.

If you create a second IM volume before the first IM volume completes its synchronization, the first volume's RAID status will indicate SYNC, and the second volume's RAID status will indicate DEGRADED.

Integrated Lights Out Manager 2.0 User's Guide

Incorrect ILOM Command Related to IP Address Assignment

The ILOM commands indicated on page 23 and page 28 include erroneous information.

`setpendingipdiscovery=` should be `set pendingipdiscovery=`.

Incorrect Command in the Section "Edit an SNMP User Account Using the CLI"

The following command described on page 195 is incorrect.

edit /SP/services/snmp/users/*username* **authenticationpassword=** *password*

To edit an SNMP v3 user account, type the following command:

set /SP/services/snmp/users/*username* **authenticationpassword=** *password*

Integrated Lights Out Manager 2.0 Supplement for SPARC Enterprise T5140 and T5240 Servers

Notes on the Connection of ILOM (CR 6806789)

On the SPARC Enterprise T5140 and T5240 servers, ILOM supports a maximum of 5 active sessions, including serial, Secure Shell (SSH), and web interface sessions.

Complement to the Description Regarding Diagnostics Trigger

In "Specify Diagnostic Trigger Conditions Using the CLI," the following description is missing.

The Solaris OS restart using the Solaris OS `shutdown` command or the reset on OpenBoot PROM never runs diagnostics (POST). If you want to run POST, you need to perform system reset (`reset /SYS`) or system power off/on (`stop /SYS`, `start /SYS`) from ILOM.

Integrated Lights Out Manager (ILOM) 3.0 CLI Procedures Guide

Erroneous Default Value for /SP/clients/dns

The default value for /SP/clients/dns indicated on page 29 and page 144 is incorrect. The correct value is "enabled."

Erroneous Description in "Collect SP Data to Diagnose System Problems" (CR 6806800)

The following description in the section "Collect SP Data to Diagnose System Problems" on page 88 includes incorrect information.

Variable	Option	Description
URI	Any valid target directory location	Specifies the URI of the target directory. The URI format is as follows: *protocol*`://`*username*`:`*password*`@`*host*`/`*directory* Where protocol can be one of these transfer methods: SFTP, TFTP, or FTP. For example, to store the snapshot information in the directory named `data` on the host, define the *URI* as follows: `ftp://joe:`*mypasswd@host_ip_address*`/data` The directory `data` is relative to the user's login, so the directory would probably be `/home/joe/data`.

Service Snapshot utility does not support the SP data collection using TFTP.

Erroneous Description about Collecting SP Data

The following description in the section "Collect SP Data to Diagnose System Problems" on page 88 includes incorrect information.

Variable	Option	Description
data	`full`	Specifies that all data is to be collected ("full" collection). **Note -** Using this option may reset the running host.

On the SPARC Enterprise T-series servers, when you specified the `full` option, the host in execution will not be reset. While the host is executing, you can specify the `full` option.

Complement to the Description Regarding Diagnostics Trigger

In "Specify the Diagnostics Trigger," the following description is missing.

The Solaris OS restart using the Solaris OS `shutdown` command or the reset on OpenBoot PROM never runs diagnostics (POST). If you want to run POST, you need to perform system reset (`reset /SYS`) or system power off/on (`stop /SYS`, `start /SYS`) from ILOM.

Notes on Downloading System Firmware

For the information on how to get the patch releases, contact your sales representative.

Integrated Lights Out Manager (ILOM) 3.0 Web Interface Procedures Guide

Notes on "Enable and Disable Components" (CR 6624705)

In the procedure to "Enable and Disable Components" in "Viewing Component Information and Managing System Components" on page 68, even when you select either Enable or Disable from the Actions drop-down list, a log that indicates the execution from the ILOM CLI interface is output.

```
Fault | critical: SP detected fault at time Wed Jul 18 09:37:15
2007. /SYS/MB/GBE1 Disabled by CLI action.
```

Erroneous Description about Collecting SP Data

The following description in the section "Collect SP Data to Diagnose System Problems" on page 79 includes incorrect information.

3. Select the desired Data Set: `Normal`, `Full`, or `Custom`.

- **`Normal`** – Specifies that ILOM, operating system, and hardware information is collected.
- **`Full`** – Specifies that all data is to be collected. Selecting `Full` might reset the system.
- **`Custom`** – Allows you to choose one or more of the following data sets:
  - ILOM Data
  - Hardware Data
  - Basic OS Data
  - Diagnostic Data

On the SPARC Enterprise T-series servers, when you specified the `full` option, the host in execution will not be reset. While the host is executing, you can specify the `full` option.

Notes on Downloading System Firmware

For the information on how to get the patch releases, contact your sales representative.

Integrated Lights Out Manager (ILOM) 3.0 Supplement for SPARC Enterprise T5140 and T5240 Servers

Notes on "ILOM Information Stored on the SCC"

When transferring the SCC to the replacement server, keep the following note in mind.

Note – If the ILOM versions are different between the failed server and the replacement server, the settings on the SCC(NVRAM) will be ignored or overwritten. If the ILOM versions are the same, the settings will be retained.

Incorrect Description about Specifying `powercycle` Option (CR 6881020)

When you specify the `powercycle` option indicated in "Specify System Behavior if Restart Fails" on page 13, the power on/off is not executed, but the hardware reset is executed forcibly.

`-v` Option for `flashupdate` Command (ALOM CMT Command) (CR 6806268)

The description about the [`-v`] option for flashupdate command is missing in TABLE 3 "ALOM CMT Shell Status and Control Commands."

Even if you specify the `-v` option when executing the `flashupdate` command (ALOM CMT command), the detailed information is not displayed. Also, specifying the `-v` option does not affect update of the system firmware.

APPENDIX **A**

Fixed Issues

This appendix describes the fixed issues concerning the SPARC Enterprise T5140 and T5240 servers. You can avoid the issues by using the latest version of Solaris OS, System Firmware, or other software. For details on the fix, see the "workaround" in each table.

Hardware and Mechanical Issues

This section explains the hardware and mechanical issues that have been fixed.

Incorrect Fan Diagrams on Service Label for Eight-Disk Capable T5140 Server

This error has been fixed for the servers shipped after September 2009.

The service label on eight-disk capable SPARC Enterprise T5140 server indicates the wrong number of fan modules. In various places, the label shows six fan modules. The correct number is seven. The missing fan module belongs in the lower right corner of the fan compartment as seen from the front of the server.

The following diagram shows the correct fan module configuration for eight-disk capable T5140 server.

Bd 1, Fan 0	Bd 1, Fan 1	Bd 1, Fan 2	<EMPTY>
Bd 0, Fan 0	Bd 0, Fan 1	Bd 0, Fan 2	Bd 0, Fan 3

Note – The fan layout illustrations on the service label are correct for four-disk capable T5140 server.

Not Enough Memory to Expand MD on Some Memory Configurations (CR 6879970)

This issue is resolved by updating the system firmware to 7.2.7.b or later.

If the memory size for one CPU in a system is 128 gigabytes, memory resources for the other CPU must be greater than 16 gigabytes. Otherwise, a memory overflow condition will result. TABLE A-1 illustrates the three memory configurations that exhibit this behavior.

TABLE A-1 Examples of Dual CPU Memory Configurations That Can Produce Memory Overflow

CPU 0 Memory Size	CPU 1 Memory Size	CPU 0 FB-DIMM Use	CPU 1 FB-DIMM Use
16 GB	128 GB	8x 2-GB DIMMs	16x 8-GB DIMMs
8 GB	128 GB	8x 1-GB DIMMs	16x 8-GB DIMMs
16 GB	128 GB	16x 1-GB DIMMs	16x 8-GB DIMMs

Workaround: Assign memory resources in configurations that avoid the combinations shown in TABLE A-1.

Solaris OS Issues

TABLE A-2 lists the Solaris OS issues that have been fixed.

TABLE A-2 Fixed Solaris OS Issues

CR ID	Description	Workaround
6886514	Boot drive may report "`drive type unknown`" for Solaris `format` command. For details, see "Boot Drive May Report "drive type unknown" for Solaris `format` Command (CR 6886514)" on page 66.	**Note - Fixed in Solaris patch ID 124630-32 or later.** For recovery procedures, see "Boot Drive May Report "drive type unknown" for Solaris `format` Command (CR 6886514)" on page 66.
6702351	If `cfgadm -c unconfigure` is executed repeatedly in sequence, the blue LED may remain off.	**Note - Fixed in Solaris patch ID 139555-03 or later.** Since some time is required for the blue LED to light, do not execute the command repeatedly in sequence.
6655397 6637246 6525647	Cryptographic jobs can fail, sometimes causing a system panic, in LDoms configurations where there are CPUs not associated with the cryptographic unit. Running SunVTS cryptotest can result in system panic or an error message. The failure can happen in environments with LDoms domaining enabled or disabled.	**Note - Fixed in Solaris 10 5/08 and patch ID 127127-11 or later.** Configure the number of CPUs in a domain so that the domain has 8 CPUs allocated for each MAU. Avoid running SunVTS cryptotest.
6619224	Under certain very unusual situations, a single logical domain of 65 or more virtual CPUs can hang for an extended period of time. Upon recovery, the `uptime` command shows extremely high load averages.	**Note - Fixed in Solaris patch ID 138082-01 or later, and 137137-09 or later.** If you encounter this problem, do not exceed 64 virtual CPUs in a single domain. You can do this by using the LDoms Manager to create two (or more) smaller domains, or by using the Solaris `psradm` command to disable excess virtual CPUs.
6603354	SunVTS `xnetlbtest` can fail during XAUI loopback testing. Failures occur with this error message: `Excessive packets dropped`	**Note - Fixed in Solaris 10 10/08 and patch ID 137137-09 or later.** Do not run SunVTS `xnetlbtest` on XAUI interfaces.
6601028	The LEDs of TX (data transmitting) and RX (data receiving) on XAUI Card don't not show correct status of data transmission.	**Note - Fixed in Solaris patch ID 137137-04 or later.** Please ignore these LED's status.
6588550	The `prtdiag -v` and `prtpicl` command are slow and could thus appear to hang. These commands could take up to five minutes to complete.	**Note - Fixed in Solaris patch ID 139502-01 or later.**

TABLE A-2 Fixed Solaris OS Issues *(Continued)*

CR ID	Description	Workaround
6581309	Console behavior on the control domain is inconsistent when a graphics device and keyboard are specified for console use. This situation occurs when the OpenBoot variables `input-device` and `output-device` are set to anything other than the default value of `virtual-console`. If the control domain is set this way, some console messages are sent to the graphics console and other messages are sent to the virtual console. This situation results in incomplete information on either console. In addition, when the system is halted, or a break is sent to the console, control is passed to the virtual console, which requires keyboard input over the virtual console. As a result, the graphics console appears to hang.	**Note - Fixed in Solaris 10 10/08 and patch ID 137137-09 or later.** Use the virtual console only. From the `ok` prompt, ensure that the default value of `virtual-console` is set for both the `input-device` and `output-device` variables. If `input-device` and `output-device` are set to `graphics console` and the graphics console appears to be hung, connect to the virtual console from the service processor in order to provide the required input. Press Return on the virtual console keyboard once to see the output on the virtual console.
6555956	Panic can occur during reboot with the message `Fatal error has occurred in: PCIe root complex.` The panic occurs only on reboot and has never been observed on the reboot that follows the panic.	**Note - Fixed in Solaris 10 5/08 or later.** Ensure that the system is set to automatically reboot after a panic. For information about setting up automatic reboot, see the *Integrated Lights Out Manager Supplement 2.0 for SPARC Enterprise T5140 and T5240 Servers*.
6552999 6731560	If the verbose (`-v`) option is specified for the control domain `prtdiag` command, additional environmental status information will be displayed. If `Control-C` is issued to interrupt the output of this information, the picld(1M) daemon may enter the state in which environmental status information is no longer supplied to `prtdiag`. If it does, additional environmental data will no longer be displayed.	**Note - Fixed in Solaris patch ID 138082-01 or later, and 139502-02 or later.** See "If `prtdiag` Is Canceled, Subsequent `prtdiag` Executions May Fail to Display Status Information (CR 6552999, 6731560)" on page 73.
6525647	Dynamic Reconfiguration (DR) of CPUs is disabled for all logical domains that have any cryptographic units bound to them	**Note - Fixed in Solaris patch ID 127111-10 or later.** To dynamically reconfigure CPUs in the control or guest domains, remove all of the cryptographic units bound to the domain. This can be done while the system is running. The change will take effect after the domain reboots.

Boot Drive May Report "drive type unknown" for Solaris `format` Command (CR 6886514)

This issue is resolved with Solaris patch ID 124630-32 or later.

During a period extending from mid-September to early October 2009 (approximately 3 weeks) a patch was preinstalled on some SPARC Enterprise T5140 and T5240 servers, which introduced a latent bug into those systems. The bug is described as "latent" because it is activated only when the Solaris `format` command is used. Otherwise, the bug has no effect on system behavior or performance.

When a system administrator or other user with root (/) privileges enters the `format` command on a system containing this bug, the boot drive will report "drive type unknown". This fault condition presents two problems for the administrator:

- The administrator will be unable to access unused portions of the boot drive because of the unknown drive type error.
- The presence of mounted partitions blocks use of the `format` utility's auto configure feature. Attempts to bypass this restriction by booting from the network or removable media could put the system in an unbootable state.

The Workaround section below describes a procedure you can use to recover from this "drive type unknown" fault mode without the risks associated with the network and media boot methods.

Workaround: The sequence of steps shown in CODE EXAMPLE 1 must be followed exactly as shown. To simplify tracking of the procedure, the steps are organized into nine sections:

1. **Determine whether or not the system's boot device is affected.**
2. **Shut server down and restart in single user mode with the root filesystem mounted read only.**
3. **Mount the `tmpfs /tmp` filesystem to provide a working area.**
4. **Capture the boot drive's existing `vtoc` in a file stored in `/tmp`.**
5. **Make a copy of the `fmthard` utility for use in the `/tmp` work area.**
6. **Set and export the `NOINUSE_CHECK` variable to allow the `format` command full access to the boot drive.**
7. **Run the `format` utility to restore the drive's "type".**
8. **Use the `fmthard` command and stored information to complete the recovery.**
9. **Verify the success of the recovery.**

CODE EXAMPLE A-1 Procedure for Recovering a Boot Drive's "drive type"

1. Determine if the boot drive is affected:

```
root@host-1 # uname -a
SunOS host-1 5.10 Generic_141414-10 sun4v sparc SUNW,SPARC-Enterprise-T5240
root@host-1 # mount -p | head -1
```

CODE EXAMPLE A-1 Procedure for Recovering a Boot Drive's "drive type" *(Continued)*

```
    /dev/dsk/c0t0d0s0 - / ufs - no rw,intr,largefiles,logging,xattr,onerror=panic
    root@host-1 # format c0t0d0s0 <========== boot device determined previously
    /dev/dsk/c0t0d0s0 is currently mounted on /. Please see umount(1M).
    /dev/dsk/c0t0d0s1 is currently used by swap. Please see swap(1M).

    FORMAT MENU:
    disk      - select a disk
    type      - select (define) a disk type
    partition - select (define) a partition table
    format    - format and analyze the disk
    repair    - repair a defective sector
    label     - write label to the disk
    analyze   - surface analysis
    defect    - defect list management
    backup    - search for backup labels
    verify    - read and display labels
    save      - save new disk/partition definitions
    inquiry   - show vendor, product and revision
    volname   - set 8-character volume name The jumpstart install process
    !<cmd>    - execute <cmd>, then return
    quit
format> disk

The jumpstart install process
AVAILABLE DISK SELECTIONS:
    0. c0t0d0 <drive type unknown> <========== problem indication
    /pci@0/pci@0/pci@2/scsi@0/sd@0,0
Specify disk (enter its number)[0]: ^C <========== quit with <ctrl>C
format> quit
root@host-1 #
```

2. Shut the server down; then bring it up in single user mode with root filesystem mounted read only.

```
    root@host-1 # init 0
    Oct 20 16:26:56 host-1 syslogd: going down on signal 15
    svc.startd: The system is down.
    syncing file systems... done
    Program terminated

    SPARC Enterprise T5240, No Keyboard
    Copyright 2009 Sun Microsystems, Inc. All rights reserved.
    OpenBoot 4.30.4, 3968 MB memory available, Serial #xxxxxxxx.
    Ethernet address xx:xx:xx:xx:xx:xx, Host ID: xxxxxxxx.

    {0} ok boot -m milestone=none
    Boot device: /pci@0/pci@0/pci@2/scsi@0/disk@0,0:a File and args: -m
```

CODE EXAMPLE A-1 Procedure for Recovering a Boot Drive's "drive type" *(Continued)*

```
    milestone=none
    Copyright 1983-2009 Sun Microsystems, Inc. All rights reserved.
    Use is subject to license terms.
    Booting to milestone "none".
    Requesting System Maintenance Mode
    (See /lib/svc/share/README for more information.)
    Console login service(s) cannot run

    Root password for system maintenance (control-d to bypass): <====== login
        single user mode
    single-user privilege assigned to /dev/console.
    Entering System Maintenance Mode

    Oct 20 18:06:11 su: 'su root' succeeded for root on /dev/console
    Sun Microsystems Inc.SunOS 5.10 Generic January 2005
    Sourcing //.profile-EIS.....
```

3. Mount the `tmpfs /tmp` filesystem to provide a working area.

```
    root@ # mount -F tmpfs /tmp
    root@ # cd /tmp
```

4. Capture the boot drive's existing `vtoc` in a file stored in `/tmp`. Use the raw device of the boot device determined at the beginning -- i.e ., use /dev/rdsk/c?t?d?s? not /dev/dsk/c?t?d?s?

```
root@ # prtvtoc /dev/rdsk/c0t0d0s0 > /tmp/vtoc <======boot disk vtoc saved
     in /tmp/vtoc
```

5. Make a copy of the `fmthard` utility for use in the `/tmp` work area.

```
    root@ # cp /usr/sbin/fmthard /tmp
```

6. Set and export the `NOINUSE_CHECK` variable:

```
    root@ # setenv NOINUSE_CHECK=1
    root@ # export NOINUSE_CHECK
```

7. Run the `format` utility to restore the drive's "type".

```
    root@ # format
    Searching for disks...done

AVAILABLE DISK SELECTIONS:

    0. c0t0d0 <drive type unknown> <========== drive type unknown is the issue
    /pci@0/pci@0/pci@2/scsi@0/sd@0,0
    Specify disk (enter its number): 0
```

CODE EXAMPLE A-1 Procedure for Recovering a Boot Drive's "drive type" *(Continued)*

```
Format will now present the following menu, choose 0. Auto configure

AVAILABLE DRIVE TYPES:
    0. Auto configure
    1. Quantum ProDrive 80S
    2. Quantum ProDrive 105S
       [...]
    17. Zip 250
    18. Peerless 10GB
    19. other
    Specify disk type (enter its number): 0
    c0t0d0: configured with capacity of 68.35GB <======= drive type corrected
    <SUN72G cyl 14087 alt 2 hd 24 sec 424> <======= drive type corrected
    selecting c0t0d0
    [disk formatted]

Following Auto configure, the correct drive value should be reported.

    FORMAT MENU:
       disk      - select a disk
       type      - select (define) a disk type
       partition - select (define) a partition table
       current   - describe the current disk
       format    - format and analyze the disk
       repair    - repair a defective sector
       label     - write label to the disk
       analyze   - surface analysis
       defect    - defect list management
       backup    - search for backup labels
       verify    - read and display labels
       save      - save new disk/partition definitions
       inquiry   - show vendor, product and revision
       volname   - set 8-character volume name The jumpstart install process
       !<cmd>    - execute <cmd>, then return
       quit
    format> label
    Ready to label disk, continue? y
    format> quit
    root@ #
```

8. Use the `fmthard` command and stored information to complete the recovery.

```
    root@ # /tmp/fmthard -s /tmp/vtoc /dev/rdsk/c0t0d0s0 <=== raw boot device
      used to capture vtoc.
    fmthard: New volume table of contents now in place.
    root@ #
```

CODE EXAMPLE A-1 Procedure for Recovering a Boot Drive's "drive type" *(Continued)*

9. Verify the success of the recovery.

```
    root@ # format
    Searching for disks...done

AVAILABLE DISK SELECTIONS:
    0. c0t0d0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
      /pci@0/pci@0/pci@2/scsi@0/sd@0,0
    Specify disk (enter its number): 0
    selecting c0t0d0
    [disk formatted]

FORMAT MENU:
      disk      - select a disk
      type      - select (define) a disk type
      partition - select (define) a partition table
      current   - describe the current disk
      format    - format and analyze the disk
      repair    - repair a defective sector
      label     - write label to the disk
      analyze   - surface analysis
      defect    - defect list management
      backup    - search for backup labels
      verify    - read and display labels
      save      - save new disk/partition definitions
      inquiry   - show vendor, product and revision
      volname   - set 8-character volume name The jumpstart install process
      !<cmd>    - execute <cmd>, then return
      quit
   format> partition

PARTITION MENU:
   0      - change '0' partition
   1      - change '1' partition
   2      - change '2' partition
   3      - change '3' partition
   4      - change '4' partition
   5      - change '5' partition
   6      - change '6' partition
   7      - change '7' partition
   select - select a predefined table
   modify - modify a predefined partition table
   name   - name the current table
   print  - display the current table
   label  - write partition map and label to the disk
   !<cmd> - execute <cmd>, then return
```

CODE EXAMPLE A-1 Procedure for Recovering a Boot Drive's "drive type" *(Continued)*

```
   quit
partition> print
Current partition table (original):
Total disk cylinders available: 14087 + 2 (reserved cylinders)

Part Tag        Flag  Cylinders    Size     Blocks
0    root       wm    825 - 3298   12.00GB  (2474/0/0)    25175424
1    swap       wu    0 - 824      4.00GB   (825/0/0)      8395200
2    backup     wm    0 - 14086    68.35GB  (14087/0/0)  143349312
3    unassigned wm    3299 - 5772  12.00GB  (2474/0/0)    25175424
4    unassigned wu    0            0        (0/0/0)              0
5    unassigned wu    0            0        (0/0/0)              0
6    unassigned wu    0            0        (0/0/0)              0
7    unassigned wu    0            0        (0/0/0)              0

partition> quit

FORMAT MENU:
      disk      - select a disk
      type      - select (define) a disk type
      partition - select (define) a partition table
      current   - describe the current disk
      format    - format and analyze the disk
      repair    - repair a defective sector
      label     - write label to the disk
      analyze   - surface analysis
      defect    - defect list management
      backup    - search for backup labels
      verify    - read and display labels
      save      - save new disk/partition definitions
      inquiry   - show vendor, product and revision
      volname   - set 8-character volume name The jumpstart install process
      !<cmd>    - execute <cmd>, then return
      quit
format> disk

AVAILABLE DISK SELECTIONS:
   0. c0t0d0 <SUN72G cyl 14087 alt 2 hd 24 sec 424>
     /pci@0/pci@0/pci@2/scsi@0/sd@0,0
Specify disk (enter its number)[0]:
selecting c0t0d0
[disk formatted]
format> quit

The drive type recovery is complete, reboot the server:

root@ # reboot
```

CODE EXAMPLE A-1 Procedure for Recovering a Boot Drive's "drive type" *(Continued)*

```
syncing file systems... done
rebooting...
Resetting...
#
SPARC Enterprise T5240, No Keyboard
Copyright 2009 Sun Microsystems, Inc. All rights reserved.
OpenBoot 4.30.4, 3968 MB memory available, Serial #xxxxxxxx.
Ethernet address xx:xx:xx:xx:xx:xx, Host ID: xxxxxxxx.
Boot device: /pci@0/pci@0/pci@2/scsi@0/disk@0,0:a File and args:
SunOS Release 5.10 Version Generic_141414-10 64-bit
Copyright 1983-2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.
Hostname: host-1
The / file system (/dev/rdsk/c0t0d0s0) is being checked.
Reading ZFS config: done.
host-1 console login:
```

If `prtdiag` Is Canceled, Subsequent `prtdiag` Executions May Fail to Display Status Information (CR 6552999, 6731560)

This issue is resolved with Solaris patch ID 138082-01 or later.

If the verbose (`-v`) option is specified for the control domain `prtdiag` command, additional environmental status information will be displayed. If `Control-C` is issued to interrupt the output of this information, the picld(1M) daemon may enter the state in which environmental status information is no longer supplied to `prtdiag`. If it does, additional environmental data will no longer be displayed.

Workaround: The following command restarts the picld SMF service.
If `prtdiag -v` or `prtpicl` fails to display status information, wait for several minutes, and then retry or restart picl.
Execute `prtdiag -v` about 10 minutes after picl is restarted.

Method 1: restarting picl

```
# svcadm restart picl
Wait for several minutes.
# prtdiag -v
```

Method 2: stopping and restarting

```
# svcadm disable svc:/system/picl:default
# rm -rf /var/run/picld_door
# svcadm enable svc:/system/picl:default
Wait for several minutes.
# prtdiag -v
```

Firmware and General Software Issues

This section explains the firmware and general software issues that have been fixed.

Fixed in System Firmware 7.4.2 or Later

TABLE A-3 Issues Fixed in System Firmware 7.4.2 or Later

CR ID	Description	Workaround

7020953	In System Firmware 7.3.0.c or later, when Solaris OS is started, the FMA message of SUN4V-8002-SP might be reported to the OS console.
	Event example:
	`EVENT-TIME: Wed Jan 26 13:01:18 JST 2011`
	`PLATFORM: SUNW,SPARC-Enterprise-T5220,`
	`CSN: -, HOSTNAME: XXXXXX`
	`SOURCE: cpumem-diagnosis, REV: 1.7`
	`EVENT-ID: 0c8bb637-d649-6027-d5e9-b255046522de`
	`DESC: The error report generator has received input data that is inconsistent or improperly formatted.`
	`Refer to http://sun.com/msg/SUN4V-8002-SP for more information.`
	`AUTO-RESPONSE: No automated response.`
	
	`IMPACT: This error does not affect system operation. The error which could not be reported may have more serious impact which cannot be determined.`
	
	`REC-ACTION: Call your service provider to determine if your system requires a firmware upgrade. Please retain the error log file.`
		Note - Fixed in System Firmware 7.4.2 or later.
		None.
		The output message can be safely ignored. No impact on the system.
		At the Solaris OS startup, due to the firmware defect, an improper event may be sent to the Solaris OS side. In that case, Solaris OS fails to interpret such event and output the message. SUN4V-8002-SP means that the error monitoring function on the Solaris OS has received an improper event.

Fixed in System Firmware 7.3.0.c or Later

TABLE A-4 Issues Fixed in System Firmware 7.3.0.c or Later

CR ID	Description	Workaround
6989852	ILOM firmware falsely recognizes the fan speed as “0” and the Service Required LED may turn on. In that case, ILOM event log is output. For details, see “Service Required LED May Turn On Due To False Recognition of Fan Speed (CR 6989852)” on page 77.	**Note - Fixed in System Firmware 7.3.0.c or later.** None. Reset ILOM to recover. If the error is cleared, then it corresponds to this event and the fan replacement is unnecessary. ILOM reset has no impact on the system.

TABLE A-4 Issues Fixed in System Firmware 7.3.0.c or Later *(Continued)*

CR ID	Description	Workaround
6983799 6981373 6946636 6913105 6908024 6722602 6663105	When connected to OS console via ILOM, input or display to console may not be enabled. And at this time, output from Solaris OS to console may fail.	**Note - Fixed in System Firmware 7.3.0.c or later.** After the system stop, disconnect the power cord and then reconnect the power cord.
6983799 6981373 6946636 6908024 6722602 6663105	The login from SSH client to ILOM fails. Or, you may fail to execute the ILOM command. When this problem occurs, the following problems may occur subsequently. 1. The login from SSH client (Secure Shell) to ILOM fails. 2. The forcible dump order to OS fails. 3. The power-off order from ILOM fails. 4. The power-on order from ILOM fails. 5. The Solaris OS condole can not be obtained. Or, you can not enter anything after entering "y".	**Note - Fixed in System Firmware 7.3.0.c or later.** Power off the system, disconnect the power cord, wait for about 180 seconds, and then reconnect the power cord.
6972360	With System Firmware 7.2.10 or later, when you connect the T5240 server which has the 1.6 GHz CPU and of 8-disk configuration to the 100V power supply and power on the system, a message might be displayed in the Solaris OS system log. Also, warning will be displayed in the `prtdiag -v` command execution result. For details, see"When the T5240 Server Connected to the 100V Power Supply and Powered On, a Message Might Be Displayed in the Solaris OS System Log (CR 6972360)" on page 78.	**Note - Fixed in System Firmware 7.3.0.c or later.** None. Due to the ILOM firmware bug, the input voltage threshold value (noncritical) of the system which has the 1.6 GHz CPU and of 8-disk configuration contains an error. If no faults are detected by executing commands like show faulty command, ignore the output messages and the displayed warnings.
6962499	After you remove/insert the power cord and while POST is running, the "`/SYS/XXXXX prom is unreadable or corrupted`" message may appear and stop at `ok` prompt. For details, see "After the Power Cord Removal/Insert, an Error Message May Appear during the POST (CR 6962499)" on page 79.	**Note - Fixed in System Firmware 7.3.0.c or later.** Take 180 or more seconds for each of the intervals between the system power-off and the power cord removal, and between the removal and insertion of the power cord.
6922544	When the timezone of the ILOM time has been set to other than GMT, if you set the ILOM time and then remove and insert the power cord, the ILOM set time and the Solaris OS startup time may become inaccurate.	**Note - Fixed in System Firmware 7.3.0.c or later.** After you set the ILOM time, perform the ILOM reset before you remove and insert the power cord and start the Solaris OS.

Service Required LED May Turn On Due To False Recognition of Fan Speed (CR 6989852)

This issue is resolved by updating the system firmware to 7.3.0.c or later.

ILOM firmware falsely recognizes the fan speed as "0" and the Service Required LED may turn on. In that case, the following event log is output.

The ILOM event log example:

```
  IPMI   | critical: "ID =   9a : 08/17/2010 : 00:39:17 : Fan : /FB0/FM0/F0/TACH
: Lower
  Non-recoverable going low  : reading 0 <= threshold 2400 RPM"
  IPMI   | critical: "ID =   9a : 08/17/2010 : 00:39:22 : Fan : /FB0/FM0/F1/TACH
: Lower
  Non-recoverable going low  : reading 0 <= threshold 2400 RPM"
  IPMI   | critical: "ID =   9a : 08/17/2010 : 00:39:26 : Fan : /FB0/FM1/F0/TACH
: Lower
  Non-recoverable going low  : reading 0 <= threshold 2400 RPM"
  IPMI   | critical: "ID =   9a : 08/17/2010 : 00:39:30 : Fan : /FB0/FM2/F1/TACH
: Lower
  Non-recoverable going low  : reading 0 <= threshold 2400 RPM"
```

The `showenvironment` command output example:

```
  ---------------------------------------------------------------------
  Fan Status:
  ---------------------------------------------------------------------
  Fans (Speeds Revolution Per Minute):
  Sensor                          Status       Speed     Warn      Low
  ---------------------------------------------------------------------
  /SYS/FANBD0/FM0/F0/TACH         FAILED           0     4000     2400
  /SYS/FANBD0/FM0/F1/TACH         FAILED           0     4000     2400
  /SYS/FANBD0/FM1/F0/TACH         FAILED           0     4000     2400
  /SYS/FANBD0/FM1/F1/TACH         OK            6400     4000     2400
  /SYS/FANBD0/FM2/F0/TACH         OK            7000     4000     2400
  /SYS/FANBD0/FM2/F1/TACH         FAILED           0     4000     2400
```

The `showfaults` command output example:

```
  sc> showfaults
  Last POST Run: Mon Jul 12 00:08:46 2010

  Post Status: Passed all devices
  ID FRU Fault
  1 /SYS/FANBD0/FM0 SP detected fault:
    TACH at /SYS/FANBD0/FM0/F0 has reached low non-recoverable threshold.
  2 /SYS/FANBD0/FM0 SP detected fault:
```

```
    TACH at /SYS/FANBD0/FM0/F1 has reached low non-recoverable threshold.
  3 /SYS/FANBD0/FM1 SP detected fault:
    TACH at /SYS/FANBD0/FM1/F0 has reached low non-recoverable threshold.
  4 /SYS/FANBD0/FM2 SP detected fault:
    TACH at /SYS/FANBD0/FM2/F1 has reached low non-recoverable threshold.
```

Workaround: None. Reset ILOM to recover. If the error is cleared, then it corresponds to this event and the fan replacement is unnecessary. ILOM reset has no impact on the system.

When the T5240 Server Connected to the 100V Power Supply and Powered On, a Message Might Be Displayed in the Solaris OS System Log (CR 6972360)

This issue is resolved by updating the system firmware to 7.3.0.c or later.

With System Firmware 7.2.10 or later, when you connect the T5240 server which has the 1.6 GHz CPU and of 8-disk configuration to the 100V power supply and power on the system, the following message might be displayed in the Solaris OS system log.

```
Jul 23 15:18:43 xxxxxxx SC Alert: [ID 156290 daemon.notice] SC
unretrieved msg: [IPMI | minor: ID = 2561 : 07/23/2010 : 05:53:31
 : Voltage : /PS1/V_IN_MAIN : Lower Non-critical going low  :
reading 103.20 <= threshold 163.20 Volts]
Jul 23 15:18:49 xxxxxxx SC Alert: [ID 247593 daemon.notice] SC
unretrieved msg: [IPMI | minor: ID = 2567 : 07/23/2010 : 05:53:36
: Voltage : /PS0/V_IN_MAIN : Lower Non-critical going low  :
reading 103.20 <= threshold 163.20 Volts]
Jul 23 15:18:59 xxxxxxx SC Alert: [ID 939904 daemon.error] SC
unretrieved msg: [Chassis | major: V_IN_MAIN at /SYS/PS1 has
reached low warning threshold.]
Jul 23 15:19:00 xxxxxxx SC Alert: [ID 558956 daemon.error] SC
unretrieved msg: [Chassis | major: Current configuration does not
support Power Supply redundancy due to low AC line voltage]
Jul 23 15:19:02 xxxxxxx SC Alert: [ID 935808 daemon.error] SC
unretrieved msg: [Chassis | major: V_IN_MAIN at /SYS/PS0 has
reached low warning threshold.]
```

In the `prtdiag -v` command execution result, warning will be displayed as follows.

Excerpt from the `prtdiag -v` command execution result:

```
Voltage sensors:
----------------------------------------------------------
Location         Sensor         Status
----------------------------------------------------------
SYS/MB           V_+3V3_STBY    ok
SYS/MB           V_+3V3_MAIN    ok
SYS/MB           V_+12V0_MAIN   ok
SYS/MB           V_VDDIO        ok
SYS/MB           V_VCOREL       ok
SYS/MB           V_VCORER       ok
SYS/MB           V_+1V5_IO      ok
SYS/MB           V_VMEML        ok
SYS/MB           V_VMEMR        ok
SYS/MB           V_VBAT         ok
SYS/PS0          V_IN_MAIN      warning (103.200volts )
                                        ~~~~~~~~~~~~ voltage value
SYS/PS0          V_OUT_MAIN     ok
SYS/PS1          V_IN_MAIN      warning (103.200volts )
                                        ~~~~~~~~~~~~ voltage value
SYS/PS1          V_OUT_MAIN     ok
```

Workaround: None. Due to the ILOM firmware bug, the input voltage threshold value (noncritical) of the system which has the 1.6 GHz CPU and of 8-disk configuration contains an error. If no faults are detected by executing commands like show faulty command, ignore the output messages and the displayed warnings.

After the Power Cord Removal/Insert, an Error Message May Appear during the POST (CR 6962499)

This issue is resolved by updating the system firmware to 7.3.0.c or later.

After you remove/insert the power cord and while POST is running, the "`/SYS/XXXXX prom is unreadable or corrupted`" message may appear and stop at `ok` prompt.

Message example:

```
Chassis | major: Host has been powered on
0:0:0>
0:0:0>SPARC-Enterprise[TM] T5140/T5240 POST 4.30.6 2009/12/01 13:08

/export/delivery/delivery/4.30/4.30.6/post4.30.6-micro/Niagara/huron/integrated
(root)
0:0:0>Copyright 2009 Sun Microsystems, Inc. All rights reserved
```

```
0:0:0>POST enabling CMP 0 threads: ffffffff.ffffffff
0:0:0>VBSC mode is: 00000000.00000001
0:0:0>VBSC level is: 00000000.00000001
0:0:0>VBSC selecting Normal mode, MAX Testing.
0:0:0>VBSC setting verbosity level 2
0:0:0>Basic Memory Tests....Done
0:0:0>Test Memory....Done
0:0:0>Setup POST Mailbox ....Done
0:0:0>Master CPU Tests Basic....Done
0:0:0>Init MMU.....
Fault | critical: SP detected fault at time Mon Jan 18 08:45:10 2010. /SYS/PADCRD
prom is unreadable or corrupted
0:0:0>NCU Setup and PIU link train....Done
0:0:0>L2 Tests....Done
0:0:0>Extended CPU Tests....Done
0:0:0>Scrub Memory....Done
0:0:0>SPU CWQ Tests...Done
0:0:0>MAU Tests...Done
0:0:0>Network Interface Unit Tests....Done
0:0:0>Functional CPU Tests....Done
0:0:0>Extended Memory Tests....Done
2010-01-18 08:46:50.299 0:0:0>INFO:
2010-01-18 08:46:50.302 0:0:0>  POST Passed all devices.
2010-01-18 08:46:50.307 0:0:0>POST:     Return to VBSC.
2010-01-18 08:46:50.310 0:0:0>Master set ACK for vbsc runpost command and spin...
Chassis | major: Host is running

SPARC Enterprise T5240, No Keyboard
Copyright 2009 Sun Microsystems, Inc.  All rights reserved.
OpenBoot 4.30.6, 8064 MB memory available, Serial #85367270.
Ethernet address 0:21:28:16:99:e6, Host ID: 851699e6.

{0} ok
```

This event occurs in case you power off the system and remove the power cord in a short period of time, or in case you remove and insert the power cord in a short period of time. When the above time period is too short, the ILOM internal process does not complete normally.

When this event occurred, perform the following procedure. After you restored using this procedure, you do not need to replace the component.

1. **Turn off the power to the system.**

   Power-off operation example:

   [Using ALOM CMT compatible shell]

```
sc> poweroff -y
```

   [Using ILOM command mode]

```
-> stop -script /SYS
```

2. **Wait for 180 or more seconds.**
3. **Remove the power cord.**
4. **Wait for 180 or more seconds.**
5. **Insert the power cord.**

Workaround: Take 180 or more seconds for each of the intervals between the system power-off and the power cord removal, and between the removal and insertion of the power cord.

Fixed in System Firmware 7.2.10.a or Later

TABLE A-5 Issues Fixed in System Firmware 7.2.10.a or Later

CR ID	Description	Workaround

6948710	With System Firmware 7.2.7.b or later, messages referring to hot insertions/removals of devices (including a nonexistent device) may be displayed intermittently during the system startup and the system running.
	Message example of a nonexistent device:
	`Chassis | major: Hot insertion of /SYS/MB/RISER1/XAUI1`
	`Chassis | major: Hot removal of /SYS/MB/RISER1/XAUI1`
	Message example of an existent device:
	`Chassis | major: Hot removal of /SYS/MB/CMP0/BR1/CH0/D0`
	`Chassis | major: Hot insertion of /SYS/MB/CMP0/BR1/CH0/D0`
		Note - Fixed in System Firmware 7.2.10.a or later.
		None.
		ILOM firmware's way of referring to the sensor is wrong. This has no impact on the system. If no faults are detected by the show faulty command, ignore the output messages.

TABLE A-5 Issues Fixed in System Firmware 7.2.10.a or Later *(Continued)*

CR ID	Description	Workaround
6734788 6784914	During the system operation, a panic may occur with the PCIEX-8000-6D message output. This occurs more frequently with a high-load access to the CD/DVD/USB device; however, even if the DVD drive is not used, vold(1M) of Solaris OS is accessing to the DVD drive periodically, and a panic may occur on rare occasions.	**Note - Fixed in System Firmware 7.2.10.a or later.** Only use the DVD drive to install the Solaris OS or software or to apply a patch or PTF (Program Temporary Fix).

Fixed in System Firmware 7.2.10 or Later

TABLE A-6 Issues Fixed in System Firmware 7.2.10 or Later

CR ID	Description	Workaround
6967929	After a PSU failure occurred on the T5140 server, even though you replaced the faulty PSU, the fault indication may not be cleared or the Service Required LED and the [REARPS] LED may remain on. Also, in the result of the `showenvironment` command of ALOM CMT compatible shell, `/SYS/PS_FAULT` may remain `ON`. For details, see "After a Faulty PSU Replaced on the T5140 Server, the Fault Indication May Not Be Cleared (CR 6967929)" on page 84.	**Note - Fixed in System Firmware 7.2.10 or later.** None. The replacement PSU has no errors. Since this is just an issue of display, perform the ILOM reset operation to recover. The ILOM reset operation has no impact on the system. For details, see "After a Faulty PSU Replaced on the T5140 Server, the Fault Indication May Not Be Cleared (CR 6967929)" on page 84.
6948680	When you change the system diagnostics settings (`/HOST/diag`) from "Remote Control"-> "Diagnostics" tab in the ILOM Web interface, the value of "`Trigger`" fails to be set with a pop-up message "Error:Invalid property value," if the following value is singly selected for the "`Trigger`". • `Power On` • `User Reset`	**Note - Fixed in System Firmware 7.2.10 or later.** None. Use the `set /HOST/diag trigger= (value)` command from the ILOM CLI interface.
6947945	When you mount a Fujitsu 4Gbps Fibre Channel card and start the system, the 4Gbps Fibre Channel card is falsely recognized as a F20 card in the ILOM CLI interface. Also, the slot number is falsely displayed. In addition, the false recognition and the false display may occur also in the FRU Status of the `prtdiag -v` command output. For details, see "Fujitsu 4Gbps Fibre Channel Card Is Falsely Recognized as F20 Card (CR 6947945)" on page 85.	**Note - Fixed in System Firmware 7.2.10 or later.** None. This can be safely ignored. To check the fibre channel card mount, use IO Devices of the `prtdiag` command of Solaris OS. For details, see "Fujitsu 4Gbps Fibre Channel Card Is Falsely Recognized as F20 Card (CR 6947945)" on page 85.

TABLE A-6 Issues Fixed in System Firmware 7.2.10 or Later *(Continued)*

CR ID	Description	Workaround

6946636
6908024
	In the Oracle VM Server for SPARC (the former Logical Domains Manager) environment, in such occasions as you changed the domain configuration, the `ldm add-spconfig` (or `ldm add-config`) command which you execute to save the domain configuration information to ILOM may fail, due to the ILOM memory shortage.
	Failure event example:
	`# ldm add-spconfig config_initial`
	`Error: Operation failed because the system controller ran out of memory. Before being able to save a new configuration, one or more of the existing ones must be deleted.`
		Note - Fixed in System Firmware 7.2.10 or later.
		After the system stop, disconnect the power cord and then reconnect the power cord.

6942238	When you mount a link card connected to PCI box and start the system, the slot number is falsely displayed in the LEDs and FRU Status of the `prtdiag -v` command output. For details, see "Slot Number of Link Card Connected to PCI Box Is Falsely Displayed (CR 6942238)" on page 87.	**Note - Fixed in System Firmware 7.2.10 or later.** None. This can be safely ignored. To check the fibre channel card mount, use IO Devices of the `prtdiag` command of Solaris OS. For details, see "Slot Number of Link Card Connected to PCI Box Is Falsely Displayed (CR 6942238)" on page 87.
6939213	After updated to System Firmware 7.2.8, when you remove/insert the power cord or reset ILOM, a message that indicates the presence or absence of a component such as DIMM, PSU, or FAN (`Device Present / Device Absent`) may be displayed in the event log. For details, see "After Updated to System Firmware 7.2.8, a Message Indicating the Presence or Absence of a Component May Be Displayed in the Event Log (CR 6939213)" on page 89.	**Note - Fixed in System Firmware 7.2.10 or later.** None. These messages are not the error messages. The message is displayed at the point when ILOM restarted, in order to reload the component information, and can be safely ignored.

TABLE A-6 Issues Fixed in System Firmware 7.2.10 or Later *(Continued)*

CR ID	Description	Workaround

6902381	When you powered on the server, all LEDs or all LEDs on the right side on the front panel may light up. When using System Firmware 7.2.2.e or later, the ILOM status check command (the `showenvironment` command) also displays the status of relevant LED being ON; however, this event itself is an issue absolutely limited to the LED display and does not have an effect on the system.	**Note - Fixed in System Firmware 7.2.10 or later.**
		None.
		When this event occurred, perform the ILOM reset operation. If not recovered, shut down the system and then remove and insert the power cord.
		ILOM reset operation example:
		Log in to ILOM and execute the following command.
		[Using ILOM command mode]
		`-> reset /SP`
		`Are you sure you want to reset /SP (y/n)? y`
		[Using ALOM CMT compatible shell]
		`sc> resetsc`
		`Are you sure you want to reset the SC [y/n]? y`

6847031	On the server with a CPU frequency of 1.6 GHz and a built-in hard disk device consisting of 16 disks, the power input sensor may have a displayed lower threshold value (`/SYS/PSX/V_IN_MAIN lower_noncritical_threshold`) of `0.000 Volts` or `N/A`. The displayed value during normal operation is `163.200 Volts`. Therefore, the power input sensor cannot detect critical input power problems in the server. For examples, see "On the Server with a Specific Configuration, Lower Threshold Value of the Power Input Sensor May Not Be Correctly Displayed (CR 6847031)" on page 90	**Note - Fixed in System Firmware 7.2.10 or later.** None.

After a Faulty PSU Replaced on the T5140 Server, the Fault Indication May Not Be Cleared (CR 6967929)

This issue is resolved by updating the system firmware to 7.2.10 or later.

After a PSU failure occurred on the T5140 server, even though you replaced the faulty PSU, the fault indication may not be cleared or the Service Required LED and the [REARPS] LED may remain on. Also, in the result of the `showenvironment` command of ALOM CMT compatible shell, `/SYS/PS_FAULT` may remain `ON`.

Example of fault indication not being cleared:

```
sc> showfaults
Last POST Run: Mon May 31 05:57:59 2010

Post Status: Passed all devices
  ID FRU            Fault
  1 /SYS/PS0        SP detected fault: Fan fault at PS0 asserted
sc>

sc> showenvironment (partial excerpt)
 :
-------------------------------------------------------------------------------
System Indicator Status:
/SYS/LOCATE              /SYS/SERVICE             /SYS/ACT
OFF                      ON                       ON
-------------------------------------------------------------------------------
/SYS/PS_FAULT            /SYS/TEMP_FAULT          /SYS/FAN_FAULT
ON                       OFF                      OFF
 :
```

Workaround: None. The replacement PSU has no errors. Since this is just an issue of display, perform the ILOM reset operation to recover. The ILOM reset operation has no impact on the system.

ILOM reset operation example:

Log in to ILOM and execute the following command.

[Using ILOM command mode]

```
-> reset /SP
Are you sure you want to reset /SP (y/n)? y
```

[Using ALOM CMT compatible shell]

```
sc> resetsc
Are you sure you want to reset the SC [y/n]? y
```

Fujitsu 4Gbps Fibre Channel Card Is Falsely Recognized as F20 Card (CR 6947945)

This issue is resolved by updating the system firmware to 7.2.10 or later.

When you mount a Fujitsu 4Gbps Fibre Channel card and start the system, the 4Gbps Fibre Channel card is falsely recognized as a F20 card in the ILOM CLI interface. Also, the slot number is falsely displayed. In addition, the false recognition and the false display may occur also in the FRU Status of the `prtdiag -v` command output.

Shown below is an event example in time of failure.

Configuration:

PCIE#0: Fibre Channel card

PCIE#1: void

PCIE#2: void

PCIE#3: void

PCIE#4: void

PCIE#5: void

The ILOM CLI interface output example:

```
/SYS/MB/RISER1/PCIE1/F20CARD
  Properties:
          type = F20 Card
          ipmi_name = RSR1/PCIE1/F20
          fault_state = OK
          clear_fault_action = (none)
```

FRU Status in the `prtdiag -v` command output:

```
# prtdiag -v
...
============================ FRU Status ============================
Location                              Name      Status
------------------------------------------------------
...
SYS/MB/RISER1/PCIE1                   F20CARD   enabled
...
```

Workaround: None. This can be safely ignored. To check the fibre channel card mount, use IO Devices of the `prtdiag` command of Solaris OS.

The `prtdiag` command execution result:

```
# prtdiag
...
============================ IO Devices ============================
Slot +            Bus   Name +                              Model
Status            Type  Path
--------------------------------------------------------------------
```

```
...
MB                FIBRE fibre-channel
                        /pci@500/pci@0/pci@9/fibre-channel
...
```

Slot Number of Link Card Connected to PCI Box Is Falsely Displayed (CR 6942238)

This issue is resolved by updating the system firmware to 7.2.10 or later.

When you mount a link card connected to PCI box and start the system, the slot number is falsely displayed in the LEDs and FRU Status of the `prtdiag -v` command output.

Shown below is an event example in time of failure.

Configuration:

PCIE#0: void

PCIE#1: void

PCIE#2: void

PCIE#3: void

PCIE#4: void

PCIE#5: Link Card

The ILOM CLI interface output example:

```
/SYS/MB/RISER0/PCIE3/LINK
  Properties:
          type = Link Card
          fru_description = Copper Link Card
          fru_manufacturer = Celestica
          fru_version = 02_51
          fru_part_number = 5017041
          fru_serial_number = XP00DD
          fault_state = OK
          connection = none
          clear_fault_action = (none)
```

LEDs and FRU Status in the `prtdiag -v` command output:

```
# prtdiag -v
...
LEDs:
------------------------------------------------------
Location                            LED      State
```

```
------------------------------------------------------
...
SYS/MB/RISER0/PCIE3/LINK            DATA     off
SYS/MB/RISER0/PCIE3/LINK            MGMT     off
...
============================ FRU Status ============================
Location                            Name     Status
------------------------------------------------------
...
SYS/MB/RISER0/PCIE3                 LINK     enabled
...
```

Workaround: None. This can be safely ignored. To check the link card mount, use IO Devices of the `prtdiag` command of Solaris OS.

The `prtdiag` command execution result:

```
# prtdiag
...
============================ IO Devices ============================
Slot +   Bus   Name +                    Model
Status   Type  Path
--------------------------------------------------------------------
...
PCIE5    PCIE  FJSV,e4ta-fjgi            Broadcom,BCM5704C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@0/pci@0/FJSV,e4ta@4
PCIE5    PCIE  FJSV,e4ta-fjgi            Broadcom,BCM5704C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@0/pci@0/FJSV,e4ta@4,1
PCIE5    PCIE  FJSV,e4ta-fjgi            Broadcom,BCM5704C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@0/pci@0,1/FJSV,e4ta@6
PCIE5    PCIE  FJSV,e4ta-fjgi            Broadcom,BCM5704C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@0/pci@0,1/FJSV,e4ta@6,1
PCIE5    PCIE  FJSV,e2ta-fjgi            Broadcom,BCM5715C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@9/pci@0/FJSV,e2ta@4
PCIE5    PCIE  FJSV,e2ta-fjgi            Broadcom,BCM5715C
               /pci@500/pci@0/pci@c/pci@0/pci@1/pci@0/pci@9/pci@0/FJSV,e2ta@4,1
PCIE5    PCIE  FJSV,e4tb-fjgi            Broadcom,BCM5715C
               /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@0/pci@0/pci@2/pci@0
               /FJSV,e4tb@4
PCIE5    PCIE  FJSV,e4tb-fjgi            Broadcom,BCM5715C
               /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@0/pci@0/pci@2/pci@0
               /FJSV,e4tb@4,1
PCIE5    PCIE  FJSV,e4tb-fjgi            Broadcom,BCM5715C
               /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@0/pci@0/pci@4/pci@0
               /FJSV,e4tb@4
PCIE5    PCIE  FJSV,e4tb-fjgi            Broadcom,BCM5715C
               /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@0/pci@0/pci@4/pci@0
               /FJSV,e4tb@4,1
PCIE5    PCIE  FJSV,e4ta-fjgi            Broadcom,BCM5704C
```

```
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@1/pci@0/FJSV,e4ta@4
PCIE5    PCIE   FJSV,e4ta-fjgi            Broadcom,BCM5704C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@1/pci@0/FJSV,e4ta@4,1
PCIE5    PCIE   FJSV,e4ta-fjgi            Broadcom,BCM5704C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@1/pci@0,1/FJSV,e4ta@6
PCIE5    PCIE   FJSV,e4ta-fjgi            Broadcom,BCM5704C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@1/pci@0,1/FJSV,e4ta@6,1
PCIE5    PCIE   FJSV,e2ta-fjgi            Broadcom,BCM5715C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@9/pci@0/FJSV,e2ta@4
PCIE5    PCIE   FJSV,e2ta-fjgi            Broadcom,BCM5715C
                /pci@500/pci@0/pci@c/pci@0/pci@9/pci@0/pci@9/pci@0/FJSV,e2ta@4,1
...
```

After Updated to System Firmware 7.2.8, a Message Indicating the Presence or Absence of a Component May Be Displayed in the Event Log (CR 6939213)

This issue is resolved by updating the system firmware to 7.2.10 or later.

After updated to System Firmware 7.2.8, when you remove/insert the power cord or reset ILOM, a message that indicates the presence or absence of a component such as DIMM, PSU, or FAN (`Device Present / Device Absent`) may be displayed in the event log.

Event log example:

```
314   Tue Apr 13 14:31:07 2010  IPMI      Log       minor
      ID =   32 : 04/13/2010 : 14:30:45 : Entity Presence : /FB1/FM2/PRSNT :
Device Absent
313   Tue Apr 13 14:31:07 2010  IPMI      Log       minor
      ID =   31 : 04/13/2010 : 14:30:45 : Entity Presence : /FB0/FM0/PRSNT :
Device Present
312   Tue Apr 13 14:31:07 2010  IPMI      Log       minor
      ID =   30 : 04/13/2010 : 14:30:45 : Entity Presence : /PS1/PRSNT : Device
Present
311   Tue Apr 13 14:31:07 2010  IPMI      Log       minor
      ID =   2f : 04/13/2010 : 14:30:45 : Entity Presence : /P1/BR1/CH0/D2/P :
Device Absent
310   Tue Apr 13 14:31:07 2010  IPMI      Log       minor
      ID =   2e : 04/13/2010 : 14:30:45 : Entity Presence : /P0/BR1/CH1/D3/P :
Device Absent
```

The message also appears for the component which is not displayed on ILOM.

```
301   Tue Apr 13 14:31:07 2010  IPMI      Log       minor
      ID =  25 : 04/13/2010 : 14:30:43 : Entity Presence : /MB/P0/MR0/P : Device
Absent
278   Tue Apr 13 14:31:06 2010  IPMI      Log       minor
      ID =   e : 04/13/2010 : 14:30:40 : Entity Presence : /FB1/PRSNT : Device
Present
```

Workaround: None. These messages are not the error messages. The message is displayed at the point when ILOM restarted, in order to reload the component information, and can be safely ignored.

On the Server with a Specific Configuration, Lower Threshold Value of the Power Input Sensor May Not Be Correctly Displayed (CR 6847031)

This issue is resolved by updating the system firmware to 7.2.10 or later.

On the server with a CPU frequency of 1.6 GHz and a built-in hard disk device consisting of 16 disks, the power input sensor may have a displayed lower threshold value (/SYS/PSX/V_IN_MAIN lower_noncritical_threshold) of 0.000 Volts or N/A. The displayed value during normal operation is 163.200 Volts.

Therefore, the power input sensor cannot detect critical input power problems in the device.

Example of display of `0.000 Volts`:

```
-> show /SYS/PS0/V_IN_MAIN -o table
Target              | Property                | Value
--------------------+-------------------------+---------------
/SYS/PS0/V_IN_MAIN  | type                    | Voltage
/SYS/PS0/V_IN_MAIN  | ipmi_name               | /PS0/V_IN_MAIN
/SYS/PS0/V_IN_MAIN  | class                   | Threshold Sensor
/SYS/PS0/V_IN_MAIN  | value                   | 206.400 Volts
/SYS/PS0/V_IN_MAIN  | upper_nonrecov_thresho  | N/A
                    | ld                      |
/SYS/PS0/V_IN_MAIN  | upper_critical_thresho  | N/A
                    | ld                      |
/SYS/PS0/V_IN_MAIN  | upper_noncritical_thre  | N/A
                    | shold                   |
/SYS/PS0/V_IN_MAIN  | lower_noncritical_thre  | 0.000 Volts
                    | shold                   |
/SYS/PS0/V_IN_MAIN  | lower_critical_thresho  | N/A
                    | ld                      |
```

```
/SYS/PS0/V_IN_MAIN  | lower_nonrecov_thresho  | N/A
                    | ld                     |
/SYS/PS0/V_IN_MAIN  | alarm_status           | cleared
```

Example of normal display:

```
-> show /SYS/PS0/V_IN_MAIN -o table
Target              | Property                | Value
--------------------+-------------------------+---------------
/SYS/PS0/V_IN_MAIN  | type                    | Voltage
/SYS/PS0/V_IN_MAIN  | ipmi_name               | /PS0/V_IN_MAIN
/SYS/PS0/V_IN_MAIN  | class                   | Threshold Sensor
/SYS/PS0/V_IN_MAIN  | value                   | 196.800 Volts
/SYS/PS0/V_IN_MAIN  | upper_nonrecov_thresho  | N/A
                    | ld                      |
/SYS/PS0/V_IN_MAIN  | upper_critical_thresho  | N/A
                    | ld                      |
/SYS/PS0/V_IN_MAIN  | upper_noncritical_thre  | N/A
                    | shold                   |
/SYS/PS0/V_IN_MAIN  | lower_noncritical_thre  | 163.200 Volts
                    | shold                   |
/SYS/PS0/V_IN_MAIN  | lower_critical_thresho  | N/A
                    | ld                      |
/SYS/PS0/V_IN_MAIN  | lower_nonrecov_thresho  | N/A
                    | ld                      |
/SYS/PS0/V_IN_MAIN  | alarm_status            | cleared
->
```

Workaround: None.

Fixed in System Firmware 7.2.8 or Later

TABLE A-7 Issues Fixed in System Firmware 7.2.8 or Later

CR ID	Description	Workaround
6919764	In System Firmware 7.2.7.b, after the power-on of a system mounted with the Fujitsu 4Gbps Fibre Channel card, the message "`F20CARD prom is unreadable or corrupted`" may appear in the ILOM event log and the Service Required LED may turn on. Solaris OS completes the startup normally, and the fibre channel card is normally recognized on Solaris OS. For details, see "On a System Mounted with the Fujitsu 4Gbps Fibre Channel Card, the Service Required LED May Turn On after the System Power-on (CR 6919764)" on page 92.	**Note - Fixed in System Firmware 7.2.8 or later.** After you insert the power cord, or after the ILOM reset complete, wait for about 180 seconds and then power on the system.

On a System Mounted with the Fujitsu 4Gbps Fibre Channel Card, the Service Required LED May Turn On after the System Power-on (CR 6919764)

This issue is resolved by updating the system firmware to 7.2.8 or later.

In System Firmware 7.2.7.b, after the power-on of a system mounted with the Fujitsu 4Gbps Fibre Channel card, the message "`F20CARD prom is unreadable or corrupted`" may appear in the ILOM event log and the Service Required LED may turn on.

Solaris OS completes the startup normally, and the fibre channel card is normally recognized on Solaris OS.

The `show faulty` command output example:

```
-> show faulty
Target               | Property                | Value
---------------------+-------------------------+---------------------------------
/SP/faultmgmt/0      | fru                     | /SYS
/SP/faultmgmt/0/     | timestamp               | Apr 06 09:41:17
 faults/0            |                         |
/SP/faultmgmt/0/     | sp_detected_fault       | /SYS/MB/RISER0/PCIE3/F20CARD
 faults/0            |                         | prom is unreadable or corrupted

->
```

The ILOM event log example:

```
15      Tue Apr  6 09:41:17 2010  Fault     Fault     critical
        SP detected fault at time Tue Apr  6 09:41:17 2010. /SYS/MB/RISER0/PCIE3/
          F20CARD prom is unreadable or corrupted
```

When this event occurred, power off the system and then reset the ILOM. After the reset complete, wait for about 180 seconds and then power on the system.

Workaround: After you insert the power cord, or after the ILOM reset complete, wait for about 180 seconds and then power on the system.

Fixed in System Firmware 7.2.7.b or Later

TABLE A-8 Issues Fixed in System Firmware 7.2.7.b or Later

CR ID	Description	Workaround
6857271	During SCC module replacement, part of the data kept on the motherboard is inadvertently overwritten with new SCC module data. This results in a connection failure to the ILOM network. For details, see "After the SCC Module Replacement, a Connection to the ILOM Network May Fail (CR 6857271)" on page 96	**Note - Fixed in System Firmware 7.2.7.b or later.** If only the SCC module fails, replace the SCC module together with the motherboard. After replacing these components, restore the backed up contents.
6856163	If the service processor is initialized with the LAN cable disconnected from the ILOM network port, the ILOM firmware serial console window displays an error message indicating a failure to start an ILOM internal process. As a result, ILOM fails to start. For details, see "When the Service Processor Is Initialized, ILOM May Fails to Start with an Error Message Displayed (CR 6856163)" on page 97.	**Note - Fixed in System Firmware 7.2.7.b or later.** 1. Disconnect the power cord. 2. Connect the LAN cable to the ILOM network port. 3. Connect the power cord. 4. Verify that the ILOM network port is linked up.
6854379	After the replacement of motherboard, the values for properties stored in the `/HOST/diag` directory may not be carried over, even though system configuration card (SCC module) is moved to the new motherboard.	**Note - Fixed in System Firmware 7.2.7.b or later.** None. Before replacing the motherboard, back up the ILOM settings. After the replacement, restore the backed up settings.

TABLE A-8 Issues Fixed in System Firmware 7.2.7.b or Later *(Continued)*

CR ID	Description	Workaround
6853843	On the DC input power model of SPARC Enterprise T5140 Server, when you execute the `prtdiag` command of Solaris OS, the "`Environmental Status`" and some part of the "`FRU Status`" information is not displayed. For the incomplete data output example, see "On the DC Input Power Model, the "Environmental Status" and Some Part of the "FRU Status" Information Is Not Displayed (CR 6853843)" on page 99.	**Note - Fixed in System Firmware 7.2.7.b or later.** None. From ILOM, check the component information and the status of fan, temperature, power sensor and so on.

6847308	In the backup of the ILOM settings, when the value of the system identifier property (`/SP system_identifier`) is its default value (`none`), the value of the system description property (`/SP system_description`) will be stored in the backup file.
	Example of erroneously stored data:
	`<entry>`
	`<property>/SP/system_identifier`
	`</property>`
	`<value>SPARC-Enterprise-T5140,`
	`ILOM v3.0.3.20.e, r46064</value>`
	`</entry>`
		Note - Fixed in System Firmware 7.2.7.b or later.
		None.
		Delete the entry of "`/SP system_identifier`" in the backup file.

6823725	Once you set the `searchpath` property of the DNS client function, you cannot change it back to the default value (`none`).	**Note - Fixed in System Firmware 7.2.7.b or later.** None.
6823516	In the DNS client settings, the number of retries (`retries property`) cannot be set to "5."	**Note - Fixed in System Firmware 7.2.7.b or later.** None. Set the integer between "0" and "4" to the number of retries.

TABLE A-8 Issues Fixed in System Firmware 7.2.7.b or Later *(Continued)*

CR ID	Description	Workaround

6822111	Pressing the FB-DIMM failure locator button on the motherboard in response to a failure of a memory module (FB-DIMM) that is connected to CMP1 may cause the wrong LED to go on.
	The list below shows which of the LEDs may go on incorrectly.
	
	- LEDs which go on incorrectly -
	Failure location Incorrectly indicated location
	`---------------------------`
	`/BR1/CH1/D0 --> /BR0/CH1/D0`
	`/BR1/CH1/D1 --> /BR0/CH1/D1`
	`/BR1/CH0/D1 --> /BR0/CH0/D1`
	`/BR1/CH0/D0 --> /BR0/CH0/D0`
	`/BR0/CH0/D0 --> /BR1/CH0/D0`
	`/BR0/CH0/D1 --> /BR1/CH0/D1`
	`/BR0/CH1/D1 --> /BR1/CH1/D1`
	`/BR0/CH1/D0 --> /BR1/CH1/D0`
		Note - Fixed in System Firmware 7.2.7.b or later.
		None.
		Perform parts replacement based on information indicated by a command such as `showfaults`.

6821325	In the output from the `prtdiag` command, warnings may be displayed for input voltage sensors (V_IN_MAIN) on power supply units. For examples, see "In the Output from the `prtdiag` Command, Warnings May Be Displayed (CR 6821325)" on page 99.	**Note - Fixed in System Firmware 7.2.7.b or later.** None. Ignore this issue because it is only a display error.
6816507	After mounted the 10GbE XAUI card, when you insert the power cord, the component information of the 10GbE XAUI card does not appear on ILOM. ILOM recognized the 10GbE XAUI card.	**Note - Fixed in System Firmware 7.2.7.b or later.** None. To confirm the component information of the 10GbE XAUI card from ILOM, check it after you power on the host.

TABLE A-8 Issues Fixed in System Firmware 7.2.7.b or Later *(Continued)*

CR ID	Description	Workaround

6737118	When you specified the `-u` option of the firmware download command (`sysfwdownload`) which is included in the firmware patch, after the completion of firmware download, system power-off process does not start automatically.
	
	Execution example
	`# ./sysfwdownload -u`
	`Sun_System_Firmware-7_1_3_d-SPARC_Enterprise_T5120+T5220.pkg`
	`WARNING: Host will be powered down for automatic firmware update when download is completed.`
	`Do you want to continue(yes/no)? yes`
	
	`..... (7%).....`
	`(15%)..... (23%).....`
	`(31%)..... (39%)..... ...`
	
	`Download completed successfully.`
	
	`#`
	<- After this, the server power-off process does not start.
		Note - Fixed in System Firmware 7.2.7.b or later.
		None.
		Stop Solaris OS and power off the system.

n/a	In System Firmware 7.2.2.e, a user who has the role of Administrator fails to collect the snapshot from the ILOM Web interface.	**Note - Fixed in System Firmware 7.2.7.b or later.** Change the user role to "aucro" and then collect the snapshot from the ILOM Web interface again. Otherwise, collect the snapshot from the ILOM command mode.

After the SCC Module Replacement, a Connection to the ILOM Network May Fail (CR 6857271)

This issue is resolved by updating the system firmware to 7.2.7.b or later.

During SCC module replacement, part of the data kept on the motherboard (*1) is inadvertently overwritten with new SCC module data (*2). This results in a connection failure to the ILOM network.

(*1) SCC module data including ILOM user data, network setting data, and diagnostics data. For details, see the ILOM Supplement for each server.

(*2) The data is initialized at this point in time, so the data has no set values.

Also, the following type of log is output (*) to the ILOM serial console window at the occurrence of the failure. sccd fails to start at ILOM startup:

Example of output to ILOM serial console at failure occurrence:

```
SUNSP-BEL07482AU login: root
Password:
Waiting for daemons to initialize...

Timed out waiting for daemons to start     <-- (*)
sccd daemon has shutdown                   <-- (*)

Integrated Lights Out Manager

Version 3.0.3.20.e

Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Warning: password is set to factory default.

->
```

Be sure to back up the service processor settings before replacing the SCC module.

Workaround: If only the SCC module fails, replace the SCC module together with the motherboard.

After replacing these components, restore the backed up contents.

When the Service Processor Is Initialized, ILOM May Fails to Start with an Error Message Displayed (CR 6856163)

This issue is resolved by updating the system firmware to 7.2.7.b or later.

If the service processor is initialized (*1) with the LAN cable disconnected from the ILOM network port, the ILOM firmware serial console window displays an error message (*2) indicating a failure to start an ILOM internal process. As a result, ILOM fails to start.

(*1) Service processor initialization has the following meaning:

[Using ILOM command mode]

```
-> set /SP reset_to_defaults=all or factory
-> reset /SP
```

[Using ALOM CMT compatible shell]

```
sc> setdefaults
sc> resetsc
```

Example of failure:

```
SUNSP-BEL07482AU login: root
Password:
Waiting for daemons to initialize...

Timed out waiting for daemons to start     <-- (*2)
sccd daemon has shutdown                   <-- (*2)

Integrated Lights Out Manager
Version 3.0.3.20.e

Copyright 2009 Sun Microsystems, Inc. All rights reserved.
Use is subject to license terms.

Warning: password is set to factory default.

->
```

Workaround: Initialize the service processor with the LAN cable connected to the ILOM network port.

As long as the network port is linked up, the service processor can be initialized, even without ILOM network settings.

If this problem occurs, restore normal system operation by using the following procedure:

1. **Disconnect the power cord.**
2. **Connect the LAN cable to the ILOM network port.**
3. **Connect the power cord.**
4. **Verify that the ILOM network port is linked up.**

On the DC Input Power Model, the "Environmental Status" and Some Part of the "FRU Status" Information Is Not Displayed (CR 6853843)

This issue is resolved by updating the system firmware to 7.2.7.b or later.

On the DC input power model of SPARC Enterprise T5140 Server, when you execute the `prtdiag` command of Solaris OS, the "Environmental Status" and some part of the "FRU Status" information is not displayed.

Incomplete Data Output Example:

```
============================ Environmental Status ============================
<-- No data output.
============================ FRU Status ============================
Location                              Name      Status
------------------------------------------------------
SYS                                   MB        enabled
SYS                                   HDD0      enabled
SYS                                   HDD1      enabled
<-- Part of data is not on display.
```

Workaround: None. From ILOM, check the component information and the status of fan, temperature, power sensor and so on.

In the Output from the `prtdiag` Command, Warnings May Be Displayed (CR 6821325)

This issue is resolved by updating the system firmware to 7.2.7.b or later.

In the output from the `prtdiag` command, warnings may be displayed for input voltage sensors(V_IN_MAIN) on power supply units.

```
Voltage sensors:
-------------------------------------------------------------
Location                          Sensor        Status
-------------------------------------------------------------
SYS/MB/CMP0/MR0                   V_VMEM        ok
SYS/MB/CMP0/MR0                   V_+1V5_VDD    ok
SYS/MB/CMP1/MR1                   V_VMEM        ok
SYS/MB/CMP1/MR1                   V_+1V5_VDD    ok
SYS/MB                            V_+3V3_STBY   ok
SYS/MB                            V_+3V3_MAIN   ok
SYS/MB                            V_+12V0_MAIN  ok
SYS/MB                            V_VDDIO       ok
```

```
SYS/MB                          V_VCOREL        ok
SYS/MB                          V_VCORER        ok
SYS/MB                          V_+1V5_IO       ok
SYS/MB                          V_VMEML         ok
SYS/MB                          V_VMEMR         ok
SYS/MB                          V_VBAT          ok
SYS/PS0                         V_IN_MAIN       warning (-48volts)
SYS/PS0                         V_OUT_MAIN      ok
SYS/PS1                         V_IN_MAIN       warning (-48volts)
SYS/PS1                         V_OUT_MAIN      ok
```

Workaround: None. Ignore this issue because it is only a display error.

Fixed in System Firmware 7.2.2.e or Later

TABLE A-9 Issues Fixed in System Firmware 7.2.2.e or Later

CR ID	Description	Workaround
6835857	After the system power-on, when Solaris OS started, the "`chip reset error!`" message may appear and Solaris OS may fail to start.	**Note - Fixed in System Firmware 7.2.2.e or later.** Power off the system, wait for about 180 seconds, and then power on the system.

6819987	For DC input power models, the following event log might be repeatedly collected:
	Sample output from the `showlogs` command:
	`IPMI |minor : "ID = 20a : 03/11/2009 : 02:31:48 : Current : /PS0/CUR_FAULT : State Asserted"`
	`IPMI |minor : "ID = 20b : 03/11/2009 : 02:31:51 : Temperature : /PS0/TEMP_FAULT : State Asserted"`
	`IPMI |minor : "ID = 20c : 03/11/2009 : 02:31:54 : Current : /PS0/CUR_FAULT : State Deasserted"`
	`IPMI |minor : "ID = 20d : 03/11/2009 : 02:31:57 : Temperature : /PS0/TEMP_FAULT : State Deasserted"`
		Note - Fixed in System Firmware 7.2.2.e or later.
		None.
		If the Service Required, Overtemp, and Power Supply Service Required LEDs on the server are off, ignore the event log items. If one of these LEDs is on, indicating that a power supply problem or temperature-related problem has occurred, correct the problem.

6802433	For DC input power models, the INPUT limit value included in the output from the `showpower -v` command may differ between /SYS/PS0 and /SYS/PS1. The /SYS/PS1 value is correct. For examples, see "For DC Input Power Models, the Output from the `showpower -v` Command May Differ between /SYS/PS0 and /SYS/PS1 (CR 6802433)" on page 104.	**Note - Fixed in System Firmware 7.2.2.e or later.** None. Ignore this issue because it is only a display error.

TABLE A-9 Issues Fixed in System Firmware 7.2.2.e or Later *(Continued)*

CR ID	Description	Workaround

6801248	For DC input power models, the following event log might be repeatedly collected when the power to the system is turned on:
	Sample output from the `showlogs` command:
	`Chassis|minor:"Error getting status DC volt for PS0"`
	`Chassis|minor:"Error getting status DC volt for PS1"`
	`Chassis|minor:"Error getting status DC volt for PS0"`
	`Chassis|minor:"Error getting status DC volt for PS0"`
		Note - Fixed in System Firmware 7.2.2.e or later.
		None.
		Ignore this event log.

6794672	After the active replacement of PSU of the external I/O expansion unit, even though the fan of the replaced PSU is normal, a fan error is erroneously detected.	**Note - Fixed in System Firmware 7.2.2.e or later.** When this event occurred, execute the ILOM command (`set /SYS/IOX@XX/PSX clear_fault_action=true`) to clear the error information.
6782508	The `/SP/powermgmt/policy` property has been disabled.	**Note - Fixed in System Firmware 7.2.2.e or later.** To `/SP/powermgmt/policy`, the following properties have become available. - `Performance` The system is allowed to use all the power that is available. - `Elastic` The system power usage is adapted to the current utilization level. For example, power up or down just enough system components to keep relative utilization at 70% at all times, even if workload fluctuates. This property is enabled only in the logical domain (LDoms) environment. In case you are not in the logical domain (LDoms) environment, or in case that the logical domain (LDoms) configuration is the factory-default, the property setting is available but cannot utilize its power consumption control function.

TABLE A-9 Issues Fixed in System Firmware 7.2.2.e or Later *(Continued)*

CR ID	Description	Workaround

6781831	After enabled the NTP function of ILOM firmware, when you power on the host, the Solaris OS time may be lagged compared to the adjusted accurate time of ILOM firmware.
	
	Example of Solaris OS system log when the time went backward for several tens of seconds
	`Nov 29 19:59:24 XXX genunix: [ID 904073 kern.notice] done`
	`Nov 29 19:58:23 XXX genunix: [ID 540533 kern.notice] ^MSunOS Release 5.10 Version Generic_137137-09 64-bit`
		Note - Fixed in System Firmware 7.2.2.e or later.
		When the Solaris OS time lagged, restore it according to the following steps.
		1. Shut down the system.
		`# shutdown -y -i0 -g0`
		2. Start the system in the single user mode.
		`{0} ok boot -s`
		3. Set the system time.
		# **date** *setting time*
		4. Reboot the system.
		`# shutdown -y -i6 -g0`

6781815	After the ILOM reset or the power cord removal and insertion, when the server powered on, Solaris OS startup at the `ok` prompt of OpenBoot PROM (OBP) using the `boot` command may fail.
	Error output example:
	`{0} ok boot`
	`ERROR: All device paths in boot-device have failed. (*)`
	`{0} ok`
	It cannot refer to the device paths that configured in the OpenBoot PROM environmental variable `boot-device` and fails to start Solaris OS.
		Note - Fixed in System Firmware 7.2.2.e or later.
		After the ILOM reset or the power cord removal and insertion, when you power on the server, check the OpenBoot PROM environmental variable. Especially, in case the OpenBoot PROM environmental variable `use-nvramrc?` has been set to `true`, it is necessary in advance of starting the Solaris OS to see the `ok` prompt and check that `use-nvramrc?` has been set to `true` and then execute the `boot` command.
		Confirmation example:
		`{0} ok printenv use-nvramrc?`
		`use-nvramrc? = true`
		`{0} ok`

6743343	Test Alert generation (alert test transmission) may not be possible, depending on the "Alert Type" and "Event" under the alert rule settings.	**Note - Fixed in System Firmware 7.2.2.e or later.** None.
6738989	The SNMP tab of the ILOM Web interface does not have an item for setting `engineid`.	**Note - Fixed in System Firmware 7.2.2.e or later.** Use the "`set /SP/services/snmp engineid=(value)`" command from the CLI to set `engineid`.
6733632	When the ILOM "`show -level all /SYS`" command is executed, information under `/SYS/MB/SP` is not displayed. When "`show -level all /SYS/MB`" is executed, information under `/SYS/MB/SP` is not displayed either.	**Note - Fixed in System Firmware 7.2.2.e or later.** Use the `show /SYS/MB/SP` command.
6720583	When the role is changed to Administrator/Operator using "Active directory" on the ILOM Web interface, the Role field is still blank.	**Note - Fixed in System Firmware 7.2.2.e or later.** Log in to ILOM and verify the `defaultrole` setting in `/SP/clients/activedirectory`.

TABLE A-9 Issues Fixed in System Firmware 7.2.2.e or Later *(Continued)*

CR ID	Description	Workaround
6718841	Sun Explorer may fail to collect the ILOM data (Tx000). If failed, it may take more than 30 minutes to return an error.	**Note - Fixed in System Firmware 7.2.2.e or later.** You can collect the ILOM data (Tx000) in another way. For details, see "Sun Explorer May Fail to Collect the ILOM Data (Tx000) (CR 6718841)" on page 104.
6701972	Even when the "SSH Server" setting is changed from "Disabled" to "Enabled" on the "SSH Server" tab on the ILOM Web interface, "Disabled" is still displayed. The "SSH Server" setting is valid.	**Note - Fixed in System Firmware 7.2.2.e or later.** Refresh the page information by clicking the "Refresh" button on the ILOM Web interface.
6694693	ILOM allows only two privileges: Administrator and Operator. Therefore, the following text about the ALOM CMT `userperm` command in the manual is inappropriate. If one of [c], [u], [a], and [r] is set, Administrator authority will be in effect. If nothing is specified, Operator authority will be in effect. <*Integrated Lights Out Manager 2.0 Supplement*> `userperm [username] [c][u][a][r]`	**Note - Fixed in System Firmware 7.2.2.e or later.** None.
6656116	If the DIMM module fails, the MCU will be disconnected, and an error message might be output to the console. For an example of the message, see "MCU Might Be Disconnected in DIMM Module Failure (CR 6656116)" on page 106.	**Note - Fixed in System Firmware 7.2.2.e or later.** Identify and replace the faulty DIMM module.
6586305	Using the SP `setdate` command (ALOM compatibility shell) after having configured non-default logical domains can cause the date on non-default domains to change.	**Note - Fixed in System Firmware 7.2.2.e or later.** Use the `setdate` command to configure the date on the SP before configuring and saving logical domain configurations. If you use `setdate` after non-default logical domain configurations have been saved, each non-default domain must be booted to Solaris OS and the date corrected. (See `date`(1) or `ntpdate`(1M).)
6579390	After disabling a DIMM, the OpenBoot PROM banner does not show a decrease in the amount of memory.	**Note - Fixed in System Firmware 7.2.2.e or later.** If you manually disable any CPU or memory resource with the ASR commands while the host is powered on, you must power cycle the host to complete the disabling of the resource. After the power cycle, the resource will be disabled, and the proper information will be displayed in the banner.

For DC Input Power Models, the Output from the `showpower -v` Command May Differ between /SYS/PS0 and /SYS/PS1 (CR 6802433)

This issue is resolved by updating the system firmware to 7.2.2.e or later.

For DC input power models, the INPUT limit value included in the output from the `showpower -v` command may differ between /SYS/PS0 and /SYS/PS1. The /SYS/PS1 value is correct.

Example of `showpower -v` command execution:

```
sc> showpower -v
-------------------------------------------------------------------

Power Supplies:
-------------------------------------------------------------------
                              INPUT    OUTPUT
                              Power    Power
Supply      Status             (W)      (W)
-------------------------------------------------------------------
/SYS/PS0    OK                172.8    123.8
/SYS/PS1    OK                153.6    133.3
-------------------------------------------------------------------
Total Power                   326.4

-------------------------------------------------------------------
             INPUT    INPUT    INPUT    OUTPUT   OUTPUT    OUTPUT
             Volt     Current  limit    Volt     Current   limit
Supply       (V)       (A)      (A)      (V)      (A)       (A)
-------------------------------------------------------------------
/SYS/PS0     -48.0    3.60     37.20    11.9     10.40     99.20
/SYS/PS1     -48.0    3.20     8.00(*)  11.9     11.20     99.20

sc>
```

(*) This is incorrect. The /SYS/PS0 value is correct.

Workaround: None. Ignore this issue because it is only a display error.

Sun Explorer May Fail to Collect the ILOM Data (Tx000) (CR 6718841)

This issue is resolved by updating the system firmware to 7.2.2.e or later.

Sun Explorer may fail to collect the ILOM data (Tx000).
If failed, it may take more than 30 minutes to return an error.

Workaround: You can collect the ILOM data (Tx000) in another way.

1. Specify the option as follows.

```
# /opt/SUNWexplo/bin/explorer -w !Tx000
```

2. Confirm the version of ILOM.

Depending on the version of ILOM, the data collection method varies.

- How to check the version

  [Using ILOM command mode]

```
-> version
SP firmware 3.0.3.20.c
            ~ <-- ILOM3.0
SP firmware build number: 45383
SP firmware date: Tue Jun  2 15:38:58 PDT 2009
SP filesystem version: 0.1.22

->
```

  [Using ALOM CMT compatible shell]

```
sc> showsc version
SP firmware version: 3.0.3.20.c
                     ~ <-- ILOM3.0
sc>
```

3. Collect the ILOM data (Tx000).

- In ILOM 3.0 or later

  In the *Integrated Lights Out Manager (ILOM) 3.0 Concepts Guide*, refer to the "Collect SP Data to Diagnose System Problems" section to collect the SP data information.

- In ILOM 2.x or earlier

  Collect the ILOM and ALOM data and supply it to service engineers along with the Sun Explorer output.

  a. Collect the following data on ILOM.

```
show /SP/users
show /SP/users/admin
show /HOST
```

  b. Create an ALOM compatible user and collect the following data on ALOM.

```
consolehistory -v
showcomponent
showdate
showenvironment
showfaults -v
showfru
showhost
showkeyswitch
showlogs -v -g 0 -p p
shownetwork
showplatform -v
showsc
showsc version -v
showusers
```

c. Reset ILOM.

```
-> reset /SP
Are you sure you want to reset /SP (y/n)? y
Performing hard reset on /SP
```

MCU Might Be Disconnected in DIMM Module Failure (CR 6656116)

This issue is resolved by updating the system firmware to 7.2.2.e or later.

If the DIMM module fails, the MCU will be disconnected, and the following message might be output to the console.

Message Example:

```
Jun 04 06:11:22: Chassis |major   : "Jun  4 06:11:22 ERROR: MCU2
initialization failed: DRAM init, disabled"
Jun 04 06:11:23: Fault   |critical: "SP detected fault at time Wed
Jun  4 06:11:23 2008. /SYS/MB/CMP0/MCU2 Forced fail (DRAM init)"
Jun 04 06:11:24: Chassis |major   : "Jun  4 06:11:24 ERROR:
MB/CMP0/MCU3 unused because MB/CMP0/MCU2 is not configured"
Jun 04 06:11:24: Chassis |major   : "Jun  4 06:11:24 ERROR:
MB/CMP0/L2_BANK4, MB/CMP0/L2_BANK5 unused because MB/CMP0/MCU2 is
not configured"
Jun 04 06:11:24: Chassis |major   : "Jun  4 06:11:24 ERROR:
MB/CMP0/L2_BANK6, MB/CMP0/L2_BANK7 unused because MB/CMP0/MCU3 is
not configured"
Jun 04 06:11:24: Chassis |major  : "Jun  4 06:11:24 ERROR: Degraded
configuration: system operating at reduced capacity"
Jun 04 06:11:24: Chassis |major   : "Jun  4 06:11:24 ERROR: System
DRAM Available: 002048 MB"
```

`showfaults` command output example:

```
Last POST Run: Wed Jun  4 06:14:17 2008
Post Status: Passed all devices
 ID FRU          Fault
 1 /SYS/MB       SP detected fault: /SYS/MB/CMP0/MCU2 Forced fail
(DRAM init)
```

Workaround: Identify and replace the faulty DIMM module.

Fixed in System Firmware 7.1.7.f or Later

TABLE A-10 Issues Fixed in System Firmware 7.1.7.f or Later

CR ID	Description	Workaround
6768857	In rare cases, the first "`start /SYS`" (`poweron`) command after the power cord has been connected may cause the following message to be output, and the system to be powered off: `V_VTTL at /SYS/MB has exceeded low non-recoverable threshold.` If this occurs, execute "`reset /SP`" (`resetsc`), and then execute the "`start /SYS`" (`poweron`) command again.	**Note - Fixed in System Firmware 7.1.7.f or later.** None.
6757022	Resetting the service processor while the host is powered on can cause the host to crash.	**Note - Fixed in System Firmware 7.1.7.f or later.** Do not reset the service processor while the system is powered on. If you encounter this issue, power cycle the server.
6731227	Two circumstances can cause a logical domain to hang when reassigning I/O branches from the primary domain (control domain) to a guest domain (I/O domain): For details, see "A Logical Domain May Hang When Reassigning I/O Branches From the Control Domain to a Guest Domain (CR 6731227)" on page 109.	**Note - Fixed in System Firmware 7.1.7.f or later.** For details, see "A Logical Domain May Hang When Reassigning I/O Branches From the Control Domain to a Guest Domain (CR 6731227)" on page 109.
6731027	Under certain conditions, the system might not power off when the Solaris OS is halted. The system might appear unresponsive in this case with no messages in at the system console or on the SC console.	**Note - Fixed in System Firmware 7.1.7.f or later.** Power off the system using one of the following methods: • The ILOM `stop/SYS` command • The ALOM `poweroff` command

TABLE A-10 Issues Fixed in System Firmware 7.1.7.f or Later *(Continued)*

CR ID	Description	Workaround
6730610	In certain circumstances you might encounter error messages concerning memory when powering on T5140 and T5240 servers. For details, see "A Memory Error Is Displayed When Powering On the Server (CR 6730610)" on page 111.	**Note - Fixed in System Firmware 7.1.7.f or later.** For details, see "A Memory Error Is Displayed When Powering On the Server (CR 6730610)" on page 111.
6729474	The `powercycle` command of the ILOM browser interface does not secure sufficient time for normal power-off of the system and may fail to complete powercycle.	**Note - Fixed in System Firmware 7.1.7.f or later.** None.

6729379	After the host is activated, the `showfaults` command may show the following:
	`sc> showfaults`
	`Last POST Run: Fri Jul  4 10:18:07 2008`
	`Post Status: Passed all devices`
	`ID FRU Fault`
	`1 /SYS/MB SP detected fault: /SYS/MB/CMP1/MCU0 Forced fail (IBIST)`
	This shows that the memory control unit (MCU) is faulty, but the motherboard, memory mezzanine kit, or memory may be faulty.
	If the serial management port (SER MGT) is used at the time of host activation, the following message is displayed:
	Displayed message example:
	`Chassis | major: Jul  4 10:11:10 ERROR: [CMP1  ] MCU0, CH0, D2 Failed IBIST, MCU disabled`
	`Fault | critical: SP detected fault at time Fri Jul  4 10:11:12 2008. /SYS/MB/CMP1/MCU0 Forced fail (IBIST)`
		Note - Fixed in System Firmware 7.1.7.f or later.
		Identify the faulty component and replace it.

6692478	Failures may occur in ILOM functions such as user account management if a prohibited character like "#", "+", or ":" is used for the first character of an ILOM user account.	**Note - Fixed in System Firmware 7.1.7.f or later.** None. When the user account can be deleted, the ILOM can be recovered by deleting the user account. When the user can not be deleted, reset the ILOM configuration to factory defaults to recover the ILOM. For the details about procedures and valid characters for ILOM user accounts, see the *Integrated Lights Out Manager 2.0 User's Guide*.

TABLE A-10 Issues Fixed in System Firmware 7.1.7.f or Later *(Continued)*

CR ID	Description	Workaround

6582340	When you are connected to the virtual console and you enter the escape character sequence (`#.`) to enter the SP CLI, the following two error messages might display before reaching the CLI prompt:
	`read: Connection reset by peer`
	`Write to vbsc: Illegal seek`
	This situation occurs when there is a lot of output through the console, and implies that the console is in use when it is not.
		Note - Fixed in System Firmware 7.1.7.f or later.
		If you are refused write access when you initiate a connection to the host with the `console` command, enter `console -f` (the force option) to get read and write access.

A Logical Domain May Hang When Reassigning I/O Branches From the Control Domain to a Guest Domain (CR 6731227)

This issue is resolved by updating the system firmware to 7.1.7.f or later.

Two circumstances can cause a logical domain to hang when reassigning I/O branches from the primary domain (control domain) to a guest domain (I/O domain):

- Case 1

If you remove an I/O branch from the logical domain configuration of the primary domain and then add the same I/O branch back to the primary domain, upon reboot the system might come back up without any I/O, the system might hang in OpenBoot, or the entire I/O branch and the associated I/O devices might be absent from the primary domain.

For example, the following actions performed in the sequence shown might lead to the primary domain hanging in OpenBoot:

1. **`ldm rm-io pci@500 primary` (Remove pci@500 from the configuration)**
2. **`ldm rm-io pci@600 primary` (Remove pci@600 from the configuration)**
3. **`ldm add-io pci@500 primary` (Add pci@500 back to the configuration)**
4. **`ldm add-config` *config_name* (Save new configuration to SP)**
5. **clean shutdown and power cycle**

- Case 2

If the you assign I/O branches to guest domains in any order except in numerical order, one or more of the guest domains will be unable to start.
For example, the following actions performed in the sequence shown might lead to one or more guest domains hanging when they are started:

1. **`ldm add-io pci@600` *guestA***
2. **`ldm add-io pci@500` *guestB***
3. **`ldm add-io pci@700` *guestC***

Workaround: Both situations can be avoided by following these guidelines:

- Case 1

Do not remove an I/O branch from the primary domain and then immediately add it back to the primary domain.

- Case 2

Be certain to add the I/O branches to the guest domains in numerical order.

Example #1: The primary domain is using pci@400 (onboard disks/USB/DVD and slots PCIe0 and PCIe1), and you want to assign pci@500, pci@600, and pci@700 to three guests. Do the following:

1. **`ldm add-io pci@500` *guestB***
2. **`ldm add-io pci@600` *guestA***
3. **`ldm add-io pci@700` *guestC***

Example #2: The primary domain is using pci@500 (onboard 1Gb/sec and10Gb/sec network, slots PCIE4, PCIE5, XAUI0, XAUI1), and you want to assign pci@400, pci@600, and pci@700 to three guests. Do the following:

1. **`ldm add-io pci@400` *guestB***
2. **`ldm add-io pci@600` *guestA***
3. **`ldm add-io pci@700` *guestC***

If you encounter this hang, you can recover by booting the system with either a prior working configuration or with the factory default configuration. The system can be booted to an earlier working configuration or in the factory default configuration by executing following sequence of commands in the ALOM CLI on the service processor (SP):

1. `sc>` **`bootmode config="`*`name_of_config`*`"`**
2. `sc>` **`poweron`**

3. sc> **poweroff**

The *name_of_config* is the working configuration saved on the service processor. If no such configurations exists on the service processor, use "factory-default" as the name of the configuration.

Note – If the "factory-default" configuration is used in the above procedure then you must reconfigure all of the guest domains and the primary domain.

A Memory Error Is Displayed When Powering On the Server (CR 6730610)

This issue is resolved by updating the system firmware to 7.1.7.f or later.

In certain circumstances you might encounter these error messages when powering on T5140 and T5240 servers:

```
Chassis | major: Jul 27 16:40:17 ERROR: dt_allocprop: prop == NULL:
Not enough memory to expand MD for new property fwd
Chassis | major: Jul 27 16:40:17 ERROR: dt_allocnode: Not enough
memory to expand MD for new node mblock
Chassis | critical: Jul 27 16:41:55 FATAL: The Service Processor
software has taken a FATAL configuration error,
Chassis | critical: the HOST Process cannot be started.
Chassis | critical: Please examine the logs to determine the reason
for failure and then
Chassis | critical: reset the Service Processor
```

This error is encountered when there is a large difference between the amount of memory on the different CMP and memory modules. For example, this could happen if the memory on CMP0+MEM0 added up to 128 Gbytes, but the memory on CMP1+MEM1 were only 16 Gbytes. This situation might happen in two different situations; each situation has its own recovery procedure.

- Case 1 - POST has determined that multiple FBDIMMS have failed on T5140 and T5240 servers with 64 8-Gbyte FB-DIMMS

If POST takes a FB-DIMM offline, you must replace it immediately. If replacing the failed FB-DIMM is not immediately possible or desired, you must disable the corresponding FBDIMMs on the other CMP/memory modules' corresponding memory branches to guarantee a contiguous memory configuration.

Type one of the following:

[Using ILOM command mode]

```
-> set /SYS/component component_state=disabled
```

[Using ALOM CMT compatible shell]

```
sc> disablecomponent asr-key
```

Type one of the following commands to display a list of enabled and disabled devices:

[Using ILOM command mode]

```
-> show components
```

[Using ALOM CMT compatible shell]

```
sc> showcomponent
```

For each FB-DIMM device that is disabled, disable the corresponding FB-DIMM associated with the other CMP/memory module units. For example, if the following device was disabled:

```
/SYS/MB/MEM0/CMP0/BR0/CH0/D1
```

Then, disable the following additional devices:

```
/SYS/MB/MEM1/CMP1/BR0/CH0/D1
```

```
/SYS/MB/MEM2/CMP2/BR0/CH0/D1
```

```
/SYS/MB/MEM3/CMP3/BR0/CH0/D1
```

- Case 2 - You have added new FB-DIMM modules to T5140 and T5240 servers and have configured one of the CMP/memory module pairs with significantly more memory than the other modules

Reallocate the FB-DIMMs across the CMP/memory modules to keep the total number and types of FB-DIMMs the same on each CMP/memory module pair.

Fixed in System Firmware 7.1.6.d or Later

TABLE A-11 Issues Fixed in System Firmware 7.1.6.d or Later

CR ID	Description	Workaround

6735254	After host activation, the CPU strand component may become disabled.
	Example of display from host side:
	`T5140, No Keyboard`
	`Copyright 2008 Sun Microsystems, Inc. All rights reserved.`
	`OpenBoot 4.28.8, 32544 MB memory available, Serial #XXXXXXXX.`
	`Ethernet address XX:XX:XX:XX:XX:XX, Host ID: XXXXXXXX.`
	`ERROR: The following devices are disabled: MB/CMP1/P0` *The numerical figures may change depending on the system configuration.
		Note - Fixed in System Firmware 7.1.6.d or later.
		None.
		Recovery procedure: Execute recovery by using the following procedure.
		If the phenomenon occurs even after executing the recovery procedure, the CPU component may be faulty. Replace the CPU component.
		[For ILOM]
		1. Delete the CPU strand component from the asr-db blacklist.
		Example:
		• `set /SYS/MB/CMP1/P0 component_state= enabled`
		[For ALOM]
		1. Delete the CPU strand component from the asr-db blacklist.
		• `enablecomponent /SYS/MB/CMP1/P0`

6728569	When you logged in to ILOM from SSH client, it takes 20 to 30 seconds or more before the login completes (before the ILOM prompt "`->`" or "`SC>`" displayed). It normally takes about 10 seconds.	**Note - Fixed in System Firmware 7.1.6.d or later.** Power off the system, disconnect the power cord, wait for about 180 seconds, and then reconnect the power cord.
6703910	The built-in fan high-speed periodical diagnosis activates every few hours, and the built-in fan operates at high speed. At this time, fan speed of the built-in fan goes up to the maximum, which increases the fan noise of the built-in fan.	**Note - Fixed in System Firmware 7.1.6.d or later.** None. The fan high-speed test has no impact on system.
6694475	It is impossible to use options of the `showfru` command on the ALOM CMT compatibility shell. All information will be displayed regardless of the option specified. `showfru [-g lines] [-s|-d] [FRU]` `-g`: Only the specified line `-s`: Only static information `-d`: Only dynamic information	**Note - Fixed in System Firmware 7.1.6.d or later.** None.

TABLE A-11 Issues Fixed in System Firmware 7.1.6.d or Later *(Continued)*

CR ID	Description	Workaround
6676561	When Solaris OS is started, BAD TRAP might occur and the Solaris OS might panic. Message Example: `panic[cpu12]/thread=300044434c0: BAD TRAP: type=31 rp=2a101c83320 addr=8 mmu_fsr=0 occurred in module "<unknown>" due to a NULL pointer dereference`	**Note - Fixed in System Firmware 7.1.6.d or later.** None.
6596503	The output of the `prtpicl` command used with the `-v` option might show CPU cores or strands with an OperationalStatus of `enabled` when, in fact, they do not exist.	**Note - Fixed in System Firmware 7.1.6.d or later.** Use the output from the `prtdiag` or `prtpicl -c` cpu commands, which do show the correct information.

Fixed in System Firmware 7.1.3.d or Later

TABLE A-12 Issues Fixed in System Firmware 7.1.3.d or Later

CR ID	Description	Workaround
6667409	A rounding error caused by frequency calculations in the Solaris OS leads to short-term discrepancies in timekeeping. These discrepancies are corrected by NTP (if enabled) or by the system TOD clock (if NTP is not enabled). One symptom is an erroneous value reported by `prtdiag` for CPU frequency (1162MHz instead of 1167MHz). Another symptom of these discrepancies is the logging of numerous `time reset` messages by NTP.	**Note - Fixed in System Firmware 7.1.3.d or later.** The NTP `time reset` messages can safely be ignored.
6660496	Fault Management diagnosis of I/O devices and CPU devices in a Logical Domains environment might not work correctly. Fault diagnosis reports can become stalled in a communications queue. If the fault diagnosis report stalls, all subsequent diagnosis reports are undeliverable.	**Note - Fixed in System Firmware 7.1.3.d or later.** Clear the queue by power cycling the primary control domain.
6660192	In certain configurations, portions of `prtdiag` output can be incomplete or incorrect. If a XAUI card does not occupy the first IO slot, `prtdiag` can report that XAUI is the name of the first network interface. Further, the location of the LSI controller might be reported as `MB` instead of `MB/SASHBA`.	**Note - Fixed in System Firmware 7.1.3.d or later.**
6656072	POST failure messages can specify the wrong CPU.	**Note - Fixed in System Firmware 7.1.3.d or later.**

TABLE A-12 Issues Fixed in System Firmware 7.1.3.d or Later *(Continued)*

CR ID	Description	Workaround
6654695	The `/SYS` object has a `clear_fault_action` property but setting it to `true` has no effect. The command will complete with the message `Set clear_fault_action to true` but nothing will be done. The `/SYS` object `clear_fault_action` property has been corrected in System Firmware 7.1.3.d or later.	**Note - Fixed in System Firmware 7.1.3.d or later.** Clear the fault by using the FRU names provided by the `show /SP/faultmgmt` command.
6654694	Fault Management-generated faults might cause multiple FRUs to be faulted. When setting `clear_fault_action=true` to clear a fault, only faults on the FRU specified will be cleared, not all the FRUs that were faulted for the same reason.	**Note - Fixed in System Firmware 7.1.3.d or later.** Use the UUID displayed by the `show faulty` command to identify all the FRUs that were faulted for the given UUID, and to clear the fault for each FRU individually. Alternatively, use the ALOM CMT compatibility CLI `clearfault` command to clear the fault by UUID.
6654395	If the LDoms Manager is active on a host machine, do not reset the service processor while the host machine is powered on. If the service processor is reset while the system power is active, the machine must be power-cycled before the LDoms Manager can start properly.	**Note - Fixed in System Firmware 7.1.3.d or later.**
6652046	POST error messages for some types of XAUI test failures can be misleading. The POST error messages can identify the correct port while reporting the wrong slot number.	**Note - Fixed in System Firmware 7.1.3.d or later.** XAUI port and slot numbers should match for the SPARC Enterprise T5140 and T5240 servers. Use the port number.
6650585	The output of the `showplatform` command can be incorrect, depending upon which commands have been issued prior to issuing `showplatform`. This situation can take several forms. For example: • After issuing the `resetsc` command, `showplatform` output can display a blank space as the domain status. • After `poweron`, prior to reaching the `ok` prompt, `showplatform` output displays the domain status as `Solaris running`. • After issuing the `poweroff` command, error messages that indicate a problem determining host status can be displayed, such as: `Error: Unable to determine the power state of the host.`	**Note - Fixed in System Firmware 7.1.3.d or later.**

TABLE A-12 Issues Fixed in System Firmware 7.1.3.d or Later *(Continued)*

CR ID	Description	Workaround
6643241	After resetting the SP, if the Locate button is depressed, it might take up to 20 seconds before the Locator LED lights. Similarly, if the `setlocator` or `showlocator` commands are issued from the ALOM CMT compatibility CLI within 20 seconds after an SP reset, the command can fail and produce the following message: `Error: No locator indicator`	**Note - Fixed in System Firmware 7.1.3.d or later.** Allow up to 20 seconds after an SP reset before pressing the Locate button to light the Locator LED. Otherwise, it can take as long as 20 seconds for the Locator LED to illuminate. Similarly, if you log into the SP immediately after an SP reset, wait 20 seconds before issuing the ALOM CMT compatibility CLI `setlocator` or `showlocator` commands. If those commands are executed within the first 20 seconds after an SP reset, the command might not complete successfully, resulting in the error message. If this situation occurs, reissuing the command should complete successfully.
6642749	If the host is at the OpenBoot PROM (`ok`) prompt when the NUL character is entered, no word completion will be performed. If the host has booted the Solaris OS when the NUL character is entered, the host drops to the minimenu. For example: `c)ontinue, s)ync, r)eboot, h)alt?`	**Note - Fixed in System Firmware 7.1.3.d or later.** Use `Control-\` for command completion when at the `ok` prompt. If the host drops to the minimenu, enter `c` to resume normal operation. If you use an application that performs a particular function when it receives a NUL character, consult the application's documentation to determine if there is an alternative method for performing that function.
6639312	The `/SYS/MB/CMP`*x* components have a `fault_state` property and a `clear_fault_action` property. These components should not have these properties since they are not FRUs, and cannot be faulted or have their fault state cleared. However, if a `/SYS/MB/CMP`*x* component fails, that `fault_state` property of the `/SYS/MB` target will be updated correctly.	**Note - Fixed in System Firmware 7.1.3.d or later.** Ignore the `fault_state` and `clear_fault_action` properties of the `/SYS/MB/CMP`*x* targets. Use the `fault_state` and `clear_fault_action` property of `/SYS/MB`.

TABLE A-12 Issues Fixed in System Firmware 7.1.3.d or Later *(Continued)*

CR ID	Description	Workaround
6639002	On systems with PCI-E adapters that have been faulted by Predictive Self-Healing (PSH) diagnosis on the host, the `show faulty` command displays the faulty FRU as the motherboard (`/SYS/MB`) instead of the PCI-E adapter. The following PSH message IDs are affected: • SUN4-8000-4P • SUN4-8000-A2 • SUN4-8000-75 • SUN4-8000-9J • SUN4-8000-D4 • PCIEX-8000-0A • PCIEX-8000-DJ • PCIEX-8000-HS Other fault-related information might be incorrect. Such information includes the `fault_state` property of components, the Faulted Components listed under the Fault Management tab in the ILOM web interface, and within the `/SP/faultmgmt` tree.	**Note - Fixed in System Firmware 7.1.3.d or later.** Use the Fault Management utilities on the host to find the location of the faulty PCI-E adapters. See the *Integrated Lights Out Manager 2.0 User's Guide* for information about using Fault Management features. If you do not have web access, the faulty FRU can be identified from the Solaris `fmdump` (1M) command. For example: # **`fmdump -v -u`** *UUID* where *UUID* is the event ID displayed by the `showfaults` command and the PSH console message displayed on the host.
6637996	The value of OpenBoot PROM variable pci-`mem64?` should be set to `true` (the default) with one exception: If bootmode is set to `reset_nvram`, the value will be `false` upon first poweron. Note that on the second poweron the bootmode will reset to `normal` and the default value of `pci-mem64?` will return to `true`.	**Note - Fixed in System Firmware 7.1.3.d or later.** To ensure that the value of pci-`mem64?` is set to true, you can set the variable using the ILOM CLI (DMTF CLP or ALOM compatibility CLI). The setting is retained until another CLI operation changes it.

6635541	If the SCC chip is missing or corrupted, a message is output to the serial port when the SP boots but no event is inserted into the event log and no fault is generated.
	The message is:
	`ERROR: Missing or invalid SCC PROM`
	When logging into the SP, the following messages are displayed before the prompt (`->` or `sc>`) is displayed:
	`Waiting for daemons to initialize...`
	`vbsc daemon failed to start`
	`sccd daemon has shutdown`
		Note - Fixed in System Firmware 7.1.3.d or later.
		If this message appears, reseat or replace the SCC chip.

TABLE A-12 Issues Fixed in System Firmware 7.1.3.d or Later *(Continued)*

CR ID	Description	Workaround
6624658	If the host has been stopped from the domain side and not from the SP, the `HOST_LAST_POWER_STATE` policy has been enabled, and the AC power to the SP is cycled, then the host starts automatically when the SP boots.	**Note - Fixed in System Firmware 7.1.3.d or later.** You can stop the host through any of the available user interfaces. For example, from the ILOM CLI use the `stop /SYS` command.
6613209	When moving the SCC chip from one system to another, if the value of `/HOST/diag trigger` (or `diag_trigger`) has two values (such as `power-on-reset error-reset`), the values are restored incorrectly from the SCC chip to the new system. The values will be restored without a space separating them (for example, `power-on-reseterror-reset`). This situation will result in POST not being run when the host is reset.	**Note - Fixed in System Firmware 7.1.3.d or later.** When moving an SCC chip from one system to another, verify that the values of `/HOST/diag trigger` are correct. If the values are not correct, set them to the desired value.
6612947	Usually, after a power failure the server resets and reboots automatically. When the power failure is very brief, the host might hang while the SP continues to operate as though the host was still functioning. The entire system can appear to be hung.	**Note - Fixed in System Firmware 7.1.3.d or later.** Log into the service processor and reset the system.
6610641	When unconfiguring a hard drive using `cfgadm`(1M), the blue Okay To Remove LED on the hard disk will turn on, indicating that it is safe to remove the hard drive. However, if the Solaris OS is rebooted without having removed the unconfigured hard drive, the drive gets reconfigured, but the Okay To Remove LED stays on, indicating incorrectly that the hard disk is in a safe-to-remove condition.	**Note - Fixed in System Firmware 7.1.3.d or later.** Avoid rebooting the Solaris OS between hard drive configure and unconfigure operations.

Fixed in Other Software

TABLE A-13 Issues Fixed in Other Software

CR ID	Description	Workaround
6651903	SunVTS `xnetlbtest` fails intermittently when run in internal loopback mode for longer test durations. Failures occur with this error message: `Excessive packets dropped`	**Note - Fixed in SunVTS6.4ps4 or later.**

APPENDIX **B**

Minor Cases

This appendix describes the minor cases concerning the SPARC Enterprise T5140 and T5240 servers. Those cases will not be fixed in the future.

Firmware and General Software Events

TABLE B-1 lists minor events related to the firmware and general software.

TABLE B-1 Firmware and General Software Events

CR ID	Description	Workaround
6952927	In the environment where applied System Firmware 7.2.8 or later, when you restore the ILOM setting and downgrade the firmware version to earlier than 7.2.8, the log output may be limited to part of the past ILOM event log. For details, see "After Downgraded the System Firmware, the Log Output May Be Limited to Part of the Past ILOM Event Log (CR 6952927)" on page 122.	None. The newly generated ILOM event log is normally collected.
6837115	On the ILOM Web interface, when you change the "Alert Management" settings from "Level: minor" and "Type: IPMI PET" to "Type: SNMP Trap," the level setting changes to "disable." The level must be set again.	None.

TABLE B-1 Firmware and General Software Events *(Continued)*

CR ID	Description	Workaround
6835854 6779753	In case that the NET-MGT port of ILOM has not been connected with the LAN cable and the network gateway is not set, the ILOM network configuration cannot be set. For the output example, see "The ILOM Network Configuration Cannot Be Set (CR 6835854, 6779753)" on page 123.	None. Connect the LAN cable to the NET-MGT port of ILOM and then set the network configuration.

6830397	In ILOM3.0, you cannot set "`service`" to the `/HOST/diag mode` property or the `diag_mode` property of the ALOM CMT compatible shell. If you set, it is displayed as "`unknown`."	None.
		The following settings offer the POST diagnosis in a mode equivalent to the "`service`."
		`/HOST/diag mode = normal`
		`/HOST diag level = max`
		`/HOST verbosity = max`

6815369	For DC input power models, /PS0/AC_POK and /PS0/DC_POK identify sensors in the power supply units. /PS0/AC_POK does not represent an AC power supply unit. For examples, see "For DC Input Power Models, /PS0/AC_POK Is Displayed (CR 6815369)" on page 124.	None.
6752910	After a host power-on instruction is executed from ILOM, the POST may not start, and processing may not go to Solaris OS boot processing or the `ok` prompt for OpenBoot PROM. For details, see "After a Host Power-On Instruction Is Executed from ILOM, the POST May Not Start, and Processing May Not Go to OS Boot Processing or the ok Prompt (CR 6752910)" on page 125.	After turning off the power to the host, wait at least three minutes before turning it on again.
6739633	When the host is off, any `prepare_to_remove` operation for the component selected in the ILOM Web interface (System Information tab -> Components tab) may cause the radio button of the component to disappear. In the "Ready to Remove Status" column, "NotReady" changes to "Ready (No Power)" for the component, but "`Return to Service`" cannot be performed for the component because the radio button is no longer displayed.	Make the following setting from the CLI: • `set /SYS/`(selected-component) `return_to_service_action=true`

TABLE B-1 Firmware and General Software Events *(Continued)*

CR ID	Description	Workaround
6739602	If the logdetail property in `/SP/clients/activedirectory` is set to a value other than "none," the following authentication error message may be displayed even if Active Directory is set to disabled (state = disabled): `sc> ActDir | critical: (ActDir) authentication status: auth-ERROR`	If Active Directory is set to disabled, ignore the message.
6738510	Specifying the `-t` option in certain commands (`create`, `delete`, `exit`, `load`, `reset`, `set`, `start`, `stop`, `version`) may cause a forced logout from the ILOM CLI.	None.

6726663	In ILOM mode, or through access to the ILOM Web, it may be possible to change the system time when the system is powered on.	In ILOM mode, be sure not to change the properties displayed below at power on so as not to change the system time directly or enable NTP services.
		`-> show /SP/clock`
		`/SP/clock`
		`Targets:`
		
		`Properties:`
		`datetime = Wed Dec 3 06:22:48 2008`
		`usentpserver = disabled`
		
		`Commands:`
		`cd`
		`set`
		`show`
		`->`

6723410	If you repeat in sequence a login to the service processor, executing a command, and logging out, logout may fail.	If this problem occurs, terminate the login session on the client from which you have accessed the service processor.
6659980	When you restarted Solaris OS, OpenBoot PROM may output the error message "`ERROR: Unable to disown USB port 3`." For details, see "When You Restarted Solaris OS, OpenBoot PROM May Output the Error Message (CR 6659980)" on page 126.	None. This message has no impact on the system and the USB device, and can be safely ignored.

TABLE B-1 Firmware and General Software Events *(Continued)*

CR ID	Description	Workaround
6637358	There are differences between the lists of components displayed from the ILOM browser interface, the ILOM DMTF CLP, and the ALOM-CMT backward compatibility CLI. The ILOM Browser interface and DMTF CLP `show components` command display information about components that are present in the system. For CPU cores that have been disabled, their thread status is displayed as `Unknown` in the Browser Interface and `(none)` in the DMTF CLP. The ALOM CMT CLI `showcomponent` command lists components present in the system, as well as components that are not present (such as DIMMS and XAUI cards) that could be added to the system already enabled. The `showcomponent` command does not list any threads for CPU cores that have been disabled.	

6587380	The Solaris `prtdiag -v` command displays some sensor indicators that are not voltage indicators under the `Voltage Indicators` heading. The sensor indicators involved include:
	`SYS/MB I_USB0 ok`
	`SYS/MB I_USB1 ok`
	`SYS/PSx CUR_FAULT ok`
	`SYS/PSx FAN_FAULT ok`
	`SYS/PSx TEMP_FAULT ok`
	However, the information reported under the Condition column is accurate and represents the current condition of the components.	

After Downgraded the System Firmware, the Log Output May Be Limited to Part of the Past ILOM Event Log (CR 6952927)

In the environment where applied System Firmware 7.2.8 or later, when you restore the ILOM setting and downgrade the firmware version to earlier than 7.2.8, the log output may be limited to part of the past ILOM event log.

Event log example:

There supposed to be logs older than ID 4461, which are not displayed.

```
-> show /SP/logs/event/list
  /SP/logs/event/list
    Targets:

    Properties:

    Commands:
        cd
        show

ID        Date/Time                      Class     Type      Severity
-----     -------------------------      --------  --------  --------
4463      Mon Apr  5 06:51:54 2010       Audit     Log       minor
          root : Open Session : object = /session/type : value = shell : success
4462      Mon Apr  5 06:39:11 2010       Audit     Log       major
          Upgrade Succeeded
4461      Mon Apr  5 06:32:18 2010       Audit     Log       minor
          root : Set : object = /config/load_uri : value =
          ftp://root:*****@192.9.2
          00.254/export/LOG/ilom_backup/LE4-3_728.config : success
```

Workaround: None. The newly generated ILOM event log is normally collected.

The ILOM Network Configuration Cannot Be Set (CR 6835854, 6779753)

In case that the NET-MGT port of ILOM has not been connected with the LAN cable and the network gateway is not set, the ILOM network configuration cannot be set.

Output example when the settings cannot be applied:

```
-> set /SP/network/ pendingipdiscovery=static
Set 'pendingipdiscovery' to 'static'

-> set /SP/network/ pendingipaddress=192.9.200.33
Set 'pendingipaddress' to '192.9.200.33'

-> set /SP/network/ pendingipnetmask=255.255.255.0
Set 'pendingipnetmask' to '255.255.255.0'

-> set /SP/network/ commitpending=true
set: Unable to get network management property
```

```
-> show /SP/network/ -d properties
 /SP/network
    Properties:
        commitpending = (Cannot show property)
        dhcp_server_ip = none
        ipaddress = (none)
        ipdiscovery = (none)
        ipgateway = (none)
        ipnetmask = (none)
        macaddress = (none)
        pendingipaddress = 192.9.200.33
        pendingipdiscovery = static
        pendingipgateway = (none)
        pendingipnetmask = 255.255.255.0
        state = disabled
```

Workaround: None. Connect the LAN cable to the NET-MGT port of ILOM and then set the network configuration.

For DC Input Power Models, /PS0/AC_POK Is Displayed (CR 6815369)

For DC input power models, /PS0/AC_POK and /PS0/DC_POK identify sensors in the power supply units. /PS0/AC_POK does not represent an AC power supply unit.

For example, the following event log is collected when the DC power cord is disconnected or reconnected:

[When the DC power cord is disconnected]

```
IPMI    |minor   : "ID = 1cec : 02/06/2009 : 04:00:26 : Power Supply
 : /PS0/AC_POK : State Deasserted" <--(*)
IPMI    |minor   : "ID = 1ced : 02/06/2009 : 04:00:26 : Power Supply
 : /PS0/DC_POK : State Deasserted"
IPMI    |minor   : "ID = 1cee : 02/06/2009 : 04:00:26 : Power Supply
 : /PS0/FAIL : State Asserted"
```

[When the DC power cord is reconnected]

```
IPMI    |minor   : "ID = 1cef : 02/06/2009 : 04:00:59 : Power Supply
 : /PS0/AC_POK : State Asserted"  <--(*)
IPMI    |minor   : "ID = 1cf0 : 02/06/2009 : 04:00:59 : Power Supply
```

```
  : /PS0/DC_POK : State Asserted"
 IPMI    |minor   : "ID = 1cf1 : 02/06/2009 : 04:00:59 : Power Supply
  : /PS0/FAIL : State Deasserted"
```

Workaround: None.

After a Host Power-On Instruction Is Executed from ILOM, the POST May Not Start, and Processing May Not Go to OS Boot Processing or the `ok` Prompt (CR 6752910)

After a host power-on instruction is executed from ILOM, the POST may not start, and processing may not go to Solaris OS boot processing or the `ok` Prompt for OpenBoot PROM.

[Using ILOM command mode]

```
-> start /SYS
-> start /SP/console
Are you sure you want to start /SP/console (y/n)? y
Serial console started.  To stop, type #.
```

[Using ALOM CMT compatible shell]

```
sc> poweron
sc> console
Enter #. to return to ALOM.
```

Nothing is displayed on the OS console. Entering the escape character "**#.**" restores the ILOM prompt. The result of the Domain Status may vary. No power-on log item has been recorded in the event log.

`showplatform` command and `showlogs` command domain status reference example:

```
sc> showplatform
SUNW,SPARC-Enterprise-T5140

Domain Status
------ ------
S0     Powered off  * Domain Status : "Powered on", "Powered off", "OpenBoot
initializing", "Unknown" etc.
sc>

sc> showlogs -p p
```

```
Log entries since Sep 29 12:45:39
----------------------------------
Sep 29 12:45:39: Chassis |major   : "Host has been powered on"
Sep 29 12:49:28: Chassis |major   : "Host is running"
Sep 29 12:49:43: Chassis |critical: "Host has been powered off"
Sep 29 12:50:47: Chassis |major   : "Host has been powered on"
Sep 29 12:54:35: Chassis |major   : "Host is running"
Sep 29 12:54:51: Chassis |critical: "Host has been powered off" * There is no
"Host has been powered on." log entry after this.
sc>
```

When You Restarted Solaris OS, OpenBoot PROM May Output the Error Message (CR 6659980)

When you restarted Solaris OS, OpenBoot PROM may output the error message "`ERROR: Unable to disown USB port 3`."

Event example:

```
# shutdown -i6 -g0 -y

Shutdown started.    Tue Apr 13 16:10:09 JST 2010

Changing to init state 6 - please wait
Broadcast Message from root (console) on xxxxxxx Tue Apr 13 16:10:09...
THE SYSTEM maramba1 IS BEING SHUT DOWN NOW ! ! !
Log off now or risk your files being damaged

# svc.startd: The system is coming down.  Please wait.
svc.startd: 101 system services are now being stopped.
Apr 13 16:10:23 xxxxxxx syslogd: going down on signal 15
svc.startd: The system is down.
syncing file systems... done
rebooting...
Resetting...
ERROR: Unable to disown USB port 3              <--


Txxxx, No Keyboard
Copyright 2010 Sun Microsystems, Inc.  All rights reserved.
OpenBoot 4.30.7, 7968 MB memory available, Serial #XXXXXXX.
Ethernet address XX:XX:XX:XX:XX:XX, Host ID: XXXXXXX.



Boot device: disk  File and args:
```

```
SunOS Release 5.10 Version Generic_141444-09 64-bit
Copyright 1983-2009 Sun Microsystems, Inc.  All rights reserved.
Use is subject to license terms.
Hostname: xxxxxxxx
/dev/rdsk/c1t0d0s7 is clean
Reading ZFS config: done.

xxxxxxxx console login:
```

Workaround: None. This message has no impact on the system and the USB device, and can be safely ignored.