

**External I/O Expansion Unit
for SPARC Enterprise
T5120/T5140/T5220/T5240/T5440 Servers**

Product Notes



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Preface

These product notes contain late-breaking information about hardware, software, or documentation for the External I/O Expansion Unit for SPARC Enterprise T5120, T5140, T5220, T5240, and T5440 servers from Oracle and Fujitsu.

This document is written for technicians, system administrators, authorized service providers, and users who have advanced experience troubleshooting and replacing hardware.

This chapter includes the following sections

- “External I/O Expansion Unit Documents” on page vii
- “Text Conventions” on page viii
- “Notes on Safety” on page ix
- “Documentation Feedback” on page ix

External I/O Expansion Unit Documents

All documents for your External I/O Expansion Unit are available online at the following locations:

- External I/O Expansion Unit hardware documents:

<http://download.oracle.com/docs/cd/E19322-01/index.html>

- Sun Oracle software-related manuals (Oracle Solaris OS, and so on):

<http://www.oracle.com/technetwork/documentation/index.html>

Book Title

External I/O Expansion Unit Installation and Service Manual

External I/O Expansion Unit Product Notes

External I/O Expansion Unit Safety and Compliance Guide

Text Conventions

This manual uses the following fonts and symbols to express specific types of information.

| Fonts/symbols | Meaning | Example |
|------------------|---|--|
| AaBbCc123 | What you type, when contrasted with on-screen computer output. This font represents the example of command input in the frame. | XSCF> adduser jsmith |
| AaBbCc123 | The names of commands, files, and directories; on-screen computer output. This font represents the example of command input in the frame. | XSCF> showuser -P User Name: jsmith Privileges: useradm auditadm |
| <i>Italic</i> | Indicates the name of a reference manual | See the <i>SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide</i> . |
| " " | Indicates names of chapters, sections, items, buttons, or menus | See Chapter 2, "System Features." |

Notes on Safety

Read the following documents thoroughly before using or handling any External I/O Expansion Unit.

- *External I/O Expansion Unit Safety and Compliance Guide.*
- *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers Important Legal and Safety Information*

Documentation Feedback

If you have any comments or requests regarding this document, go to the following web site.

<http://www.oracle-surveys.com/se.ashx?s=25113745587BE578>

External I/O Expansion Unit Product Notes

This document includes these sections:

- [“Supported Hardware and Software” on page 1](#)
 - [“Functionality Issues” on page 2](#)
 - [“Documentation Updates” on page 6](#)
-

Supported Hardware and Software

The following hardware, firmware, and software versions are supported in this release:

- SPARC Enterprise T5120, T5140, T5220, T5240, and T5440 servers
- The following table lists for each server the first version of the Solaris Operating System (OS) and the first version of Integrated Lights Out Management (ILOM) system firmware to support the External I/O Expansion Unit.

| Server | Solaris Version | ILOM Firmware |
|------------------------|--------------------|---------------|
| SPARC Enterprise T5120 | Solaris 10 8/07 OS | 7.1.6.d |
| SPARC Enterprise T5140 | Solaris 10 8/07 OS | 7.1.6.d |
| SPARC Enterprise T5220 | Solaris 10 8/07 OS | 7.1.6.d |
| SPARC Enterprise T5240 | Solaris 10 8/07 OS | 7.1.6.d |
| SPARC Enterprise T5440 | Solaris 10 5/08 OS | 7.1.7.d |

Note – The use of the External I/O Expansion Unit to connect the host server to an external boot disk drive is not supported.

Patch Information

- There are currently no patches that are specific for the External I/O Expansion Unit. Patch requirements can be revised at any time. For the availability of patches, see this web site:
<https://support.oracle.com>
- Your SPARC Enterprise T-series server might have additional patch requirements for proper server operations. Install the mandatory patches that are required for your server. For more information, refer to the product notes for your server.

Functionality Issues

This section lists known issues for the External I/O Expansion Unit.

Note – Additional issues regarding the External I/O Expansion Unit might be found in the software release notes for your operating system or the hardware product notes for your server.

Known Issues

PSU Does Not Automatically Turn On Again After Power Failure

A PSU might not automatically turn on again after an interruption of AC power that lasts at least 55 seconds. This failure can occur if the AC cord is temporarily unplugged, or if the AC circuit temporarily loses input AC power. Note that turning the PSU AC switch off and on manually does not cause this failure. When AC power is restored, on the front of the PSU the AC LED will light, but the OK LED will remain off.

The workaround is to turn off the PSU AC switch for approximately 15 seconds, then turn the PSU AC switch on again. The green OK LED and the green AC LED on the front of the PSU should light up.

If the External I/O Expansion Unit is in use by the system when AC power interruption occurs, the server's service processor may change the PSU fault status to `faulty` and light the amber FAULT LED on the PSU. Once a PSU is marked faulty, the fault status will persist through power cycles so the fault status must be manually cleared. See below for the workaround to clear the PSU fault status.

Changing the Status of a PSU That Is Marked As Faulty

If a server's service processor detects that a PSU is off, the status of the PSU changes to `faulty`. The `faulty` status can persist after the PSU is turned back on.

To clear the fault status of a PSU:

1. Ensure that the hardware problem is cleared and the green OK LED is on.
2. Ensure that the domain is on and the External I/O Expansion Unit can be accessed by the service processor.

The External I/O Expansion Unit should be visible under this command:

```
-> show /SYS
```

3. Issue the following command:

```
-> set clear_fault_action=true /SYS/IOX@nnnn/PSx
```

Where *nnnn* is the External I/O Expansion Unit and *x* is the instance of the power supply.

Other Current Issues

TABLE 1 lists open issues for the External I/O Expansion Unit.

TABLE 1 Current Issues (1 of 2)

| CR ID | Description | Workaround |
|---------|--|---|
| 6582282 | <p>Ambient temperature at alarm threshold triggers an excessive number of warning messages.</p> <p>Ext info /SYS/IOX@nnnn/PSn THERMCTRL/T_AMBIENT has exceeded high warning threshold (Message repeats.)</p> | <p>Reduce the ambient temperature if it is at or exceeds the maximum (38°C/100°F). Note: the ambient temperature is measured at the intakes of the PSUs.</p> <p>Multiple messages are generated if the ambient temperature continuously fluctuates above and below the maximum value.</p> <p>A single message is generated if the ambient temperature exceeds the maximum without fluctuating above and below the maximum.</p> |
| 6600214 | <p>When the power supply unit turns on, the overtemperature LED might turn on in error.</p> | <p>If the temperature is within normal limits, recover with this procedure:</p> <ul style="list-style-type: none"> • Power off both power supply units on the External I/O Expansion Unit. • When the DC Power LED (OK) on both power supply units turn off, disconnect both AC cables. • After 10 seconds or more, reconnect the AC cables. • Power on the External I/O Expansion Unit. <p>If the recovery procedure fails, contact a certified service engineer.</p> |
| 6660119 | <p>If the power supply units are still on when you disconnect the AC cables, the Fault LED on the PSU might turn on, and the FRUID will be marked faulty.</p> | <p>To prevent this problem, be sure to turn off the power supply units in the External I/O Expansion Unit before you disconnect the AC cables.</p> <p>If this problem occurs, verify that the AC cables are properly connected, then turn on the power supply units. Issue the following command to clear the fault and reset the error LEDs on the power supply units:</p> <pre>set clear_fault_action=true /SYS/IOX@nnnn/PSx</pre> |
| 6711118 | <p>Faults in the External I/O Expansion Unit that are diagnosed by PSH (Predictive Self-Healing) might display the incorrect location for the suspected FRU(s).</p> | <p>There is no workaround at this time.</p> |

TABLE 1 Current Issues (2 of 2)

| CR ID | Description | Workaround |
|---------|---|---|
| 6738517 | Infiniband I/O cards are not supported. | When an External I/O Expansion Unit is connected to a SPARC Enterprise T5120, T5140, T5220, or T5240 server, Infiniband I/O cards are not supported in either the server or in the External I/O Expansion Unit. Also note that the SPARC Enterprise T5440 server does not support Infiniband I/O cards, either directly within the T5440 server or within an attached External I/O Expansion Unit. |

Closed Issues

[TABLE 2](#) lists issues that were closed.

TABLE 2 Closed Issues

| CR ID | Fixed in: | Description | Workaround |
|---------|-----------------------------|---|--|
| 6562085 | Fan Controller firmware 2.2 | An I/O boat might not report the correct internal temperature. | Ignore the reported temperature. |
| 6563777 | Fan Controller firmware 2.4 | If an I/O boat is removed and then inserted again in the External I/O Expansion Unit, the server might generate error messages. | Reset the External I/O Expansion Unit with the ILOM command: reset /SYS/IOE@<i>nnnn</i> where <i>nnnn</i> is the External I/O Expansion Unit system serial number. |
| 6565649 | | A PCI Express boat might intermittently not power on or might display an undervoltage error message. | The software should automatically restore I/O boat operation. Contact a certified service engineer to request a replacement I/O boat. Note that the fault LED on the I/O boat will continue to be lighted after I/O boat power is restored but the I/O boat will otherwise operate normally. |

Documentation Updates

The installation and service manual was updated in April 2011.