Brocade Diagnostic and System Error Messages

Version 4.1.0

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Diagnostic and System Error Reference Version 3.0/4.0	53-0000210-02	First release	March 2002
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Preface

This manual provides comprehensive information to help you administer your SilkWorm switch and storage area network (SAN). This manual was developed to help technical experts operate, maintain, and troubleshoot SAN products. A list of additional SAN resource reference materials is also included. The sections that follow provide:

- A summary of updates to this document.
- The intended audience for this document.
- Information to help you use Brocade documentation.
- Information on additional SAN resources.
- How to get technical support.

What's New in This Book

The following changes have been made since the Diagnostic and System Error Messages manual was last released (part number 53-0000210-01):

- Information that was added:
  - A general introduction for this manual now explains how to read an error message, error message storage and retrieval, and error logs.
  - An introduction has been provided for each chapter, describing each error message module. This introduction provides context to help the customer understand the error message origination and the Recommended Action.
  - Each error message now has a specific Recommended Action.
  - All error message descriptions have been clarified and updated for Fabric OS v4.1.0.
- Information that was modified:
  - This manual has been reorganized to make information and error messages look-up much easier for the customer.
- Information that was removed:
  - FCIU, HA, HIL, MCAST

Intended Audience

This document is intended for use by system administrators and technicians experienced with networking, Fibre Channel, and SAN technologies.

Manual Conventions

This section lists text formatting conventions and important notices formats used in this document.

Formatting

The following table describes the formatting conventions that are used in this book:

Convention	Purpose
bold text	• identifies command names • identifies GUI elements • identifies keywords/operands • identifies text to enter at the GUI or CLI
italic text	• provides emphasis • identifies variables • identifies paths and internet addresses • identifies book titles and cross references
`code` text	• identifies CLI output • identifies syntax examples

Notes, Cautions, and Warnings

The following notices appear in this document:

Note: A note provides a tip, emphasizes important information, or provides a reference to related information.

Caution: A caution alerts you to potential damage to hardware, firmware, software, or data.

Warning: A warning alerts you to potential danger to personnel.

Related Publications

This section lists additional documentation that you might find helpful.

Brocade Documentation

The following related publications are provided on the Brocade Documentation CD-ROM and on the Brocade Partner Web site:

- **Brocade Fabric OS documentation**
  - *Brocade Fabric OS Procedures Guide*
  - *Brocade Fabric OS Reference*
- **Brocade Fabric OS optional features documentation**
  - *Brocade Advanced Performance Monitoring User's Guide*
  - *Brocade Advanced Web Tools User's Guide*
  - *Brocade Advanced Zoning User's Guide*
  - *Brocade Distributed Fabrics User's Guide*
  - *Brocade Fabric Watch User's Guide*
  - *Brocade ISL Trunking User's Guide*
  - *Brocade MIB Reference*
  - *Brocade QuickLoop User's Guide (v3.1.0 only)*
  - *Brocade Secure Fabric OS User's Guide*
  - *Secure Fabric OS QuickStart Guide*
- **Brocade hardware documentation**
  - *Brocade SilkWorm 12000 Hardware Reference (for v4.1.0 software)*
  - *Brocade SilkWorm 12000 QuickStart Guide (for v4.1.0 software)*
  - *Brocade SilkWorm 3900 Hardware Reference (for v4.1.0 software)*
  - *Brocade SilkWorm 3800 Hardware Reference (for v3.1.0 software)*
  - *Brocade SilkWorm 3200 Hardware Reference (for v3.1.0 software)*

Release notes are available on the Brocade Partner Web site and are also bundled with the Fabric OS.

Additional Resource Information

For practical discussions about SAN design, implementation, and maintenance, *Building SANs with Brocade Fabric Switches* is available through:

http://www.amazon.com

For additional Brocade documentation, visit the Brocade SAN Info Center and click the Resource Library location:

http://www.brocade.com

For additional resource information, visit the Technical Committee T11 Web site. This Web site provides interface standards for high-performance and mass storage applications for fibre channel and storage management, as well as other applications:

http://www.t11.org

For information about the Fibre Channel industry, visit the Fibre Channel Industry Association Web site:

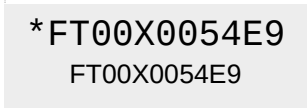
http://www.fibrechannel.org

How to Get Technical Support

Contact your switch support supplier for hardware, firmware, and software support, including product repairs and part ordering. To assist your support representative and to expedite your call, have the following three sets of information immediately available when you call:

1. **General Information**
   - Technical Support contract number, if applicable
   - switch model
   - switch operating system version
   - error messages received
   - **supportshow** command output
   - detailed description of the problem and specific questions
   - description of any troubleshooting steps already performed and results
2. **Switch Serial Number**

   The switch serial number and corresponding bar code are provided on the serial number label, as shown below:

   The serial number label is located as follows:
   - *SilkWorm 2000 series switches:* Bottom of chassis
   - *SilkWorm 3200 and 3800 switches:* Back of chassis
   - *SilkWorm 3900 switches:* Bottom of chassis
   - *SilkWorm 6400 and 12000 switches:* Inside front of chassis, on wall to left of ports
3. **Worldwide Name (WWN)**
   - *SilkWorm 3900 and 12000 switches:* Provide the license ID. Use the **licenseidshow** command to display the license ID.
   - *All other SilkWorm switches:* Provide the switch WWN. Use the **wwn** command to display the switch WWN.

Chapter

1

Introduction to System Error Messages

This reference manual supports Fabric OS v4.1.0 and contains diagnostic and system error messages with recommended actions. For ease of use, error messages are organized alphabetically, first by module and then by individual message. Typically, each module contains multiple error messages and each error message contains message text, message explanation or probable cause, recommended action, and severity level. There can be more than one cause and more than one recommended course of action for any given message. This document discusses the most probable cause and typical action recommended.

This chapter provides an introduction to the Error Log system. The following topics are discussed:

Error Message Severity Levels

There are six levels of severity messages, ranging from 0 = Panic to 5 = Debug. In general, the definitions are wide-ranging and are to be used as general guidelines for troubleshooting. For all cases, you should look at each specific error log description thoroughly before taking action. If you have any questions, collect the applicable data and then contact Technical Support for further clarification. Error messages have the following severity levels:

0 = Panic	Panic-level messages indicate that a specific software subsystem has detected a fatal/ irrecoverable error condition: for example, memory allocation failures, system call failures, and software detection of misbehaving ASIC or hardware subsystems. Such errors indicate either partial or complete failure of a subsytem. A panic frequently results in a reboot of a single-processor switch or a failover of a SilkWorm 12000 operating in a fully redundant state.
1 = Critical	Critical-level messages indicate serious problems detected by the software that will eventually cause a partial or complete failure of a subsystem: for example, a power supply failure or sensor failure can cause a critical level error message to report. Some of the critical errors might overlap in severity with the Panic-level messages.
2 = Error	Error-level messages indicate error conditions that might not be considered fatal. These messages are considered to be less severe than Panic or Critical error messages. For example, Error-level messages might indicate timeouts seen on certain operations, failures of certain operations after retries, invalid parameters, or failure to perform a requested operation.
3 = Warning	Warning-level messages are less severe than Error messages. These messages might indicate temporary failures detected by a software module. An example might include a detection of a parameter under monitoring that exceeded a specific threshold value.
4 = Information	Information-level messages are purely informational, recording important events in the system: for example, disabling a port or clearing the switch error log.
5 = Debug	Debug-level messages are for debugging purposes.

Overview of the System Logs

This section provides information on the System Logs in the system, the types of messages saved, and how to view the information in the log files.

Note: The contents of the Port Logs and setting up syslogd are discussed in the *Fabric OS Procedures Guide*. The contents of the Panic Trace Logs are intended for support use only.

System Error Log

The Fabric OS maintains an internal System Error Log of all diagnostic and system error messages. The internal log buffers are limited in size; when the internal buffers are full, new messages overwrite old messages. Features of the System Error Log:

- Each switch has a System Error Log: by default, messages of Panic and Critical level are saved to flash (using the Persistent Error Log feature; see *Persistent Error Log* on page 1-3) and all other messages are volatile. Messages not saved to flash are lost over power cycles and reboots.
- The System Error Log can save a maximum of 1536 messages in RAM: that is, a total of 256 messages for each error message level (Panic, Critical, Error, Warning, Information, and Debug).
- The System Error Log is implemented as a circular buffer. When more than maximum entries are added to the log file, old entries are overwritten by new entries.
- When the switch is rebooted, the System Error Log messages saved in RAM are lost. Those messages in the System Error Log not saved to the Persistent System Error Log are *not* preserved across power cycles and system reboots.
- By default, the **errdump** and **errorshow** commands display all of the system error messages: that is, volatile error messages (saved in memory) and persistent error messages (saved in flash) together. Operands for these commands enable you to display either messages in the (volatile) System Error Log, or messages saved in the Persistent Error Log.

Persistent Error Log

The Persistent Error Log feature enables messages to be saved across power cycles and reboots. It also prevents messages of lesser severity from overwriting messages of greater severity. For example, *Warning* messages cannot overwrite *Error*, *Critical*, or *Panic* messages. Features of the Persistent Error Log:

- Messages in the Persistent Error Log are preserved across power cycles and system reboots.
- (SilkWorm 12000 specific) The Persistent Error Log is saved to the current active CP and is not carried over to the new active CP in the event of a failover. Each CP on a SilkWorm 12000 has a unique Persistent Error Log, depending on the messages saved when that CP was the active.
- The Persistent Error Log has a default capacity of 1024 error log entries.
- The Persistent Error Log can be resized (between 1024 and 2048 entries) at run time without having to reboot the switch or the system. Use the **errnvlogsizeset** command to set the size of the Persistent Error Log and the **errnvlogsizeshow** command to view the current configuration.
- The Persistent Error Log is implemented as a circular buffer. When more than maximum entries are added to the log file, old entries are overwritten by new entries.
- All error messages of levels Panic and Critical are by default saved in the Persistent Error Log as they are logged. This guarantees that Critical- or Panic-level messages are not lost in the event of unexpected system reboot or failover.
- The message level saved to the Persistent Error Log can be modified. Use the **errsavelvlset** command to set the threshold level of messages saved to the Persistent Error Log and the **errsavelvlshow** command to view the current threshold configuration.
- Use the **errclear -p** command to clear the Persistent Error Log.

Note: Only the Persistent Error Log can be resized. The System Error Log cannot be resized.

Syslogd Daemon

Syslogd is a process that runs on UNIX or Linux systems that reads and logs messages to the system console, log files, other machines and users as specified by its configuration file. Refer to the manual pages and related documentation for your particular UNIX host system for more information on the syslogd process and its capabilities.

The Fabric OS can be configured to use a UNIX-style syslog daemon (syslogd) process to read system events and error messages and forward these messages to users and/or write the events to log files on a remote UNIX host system.

The SilkWorm switch can be configured to send error log messages to a UNIX host system that supports syslogd. This host system can be configured to receive error/event messages from the switch and store them in files on the computer hard drive. This enables the storage of switch error log messages on a host system and overcomes the size limitations of the internal log buffers on the SilkWorm switch.

The host system can be running UNIX, Linux, or any other operating system as long as it supports standard syslogd functionality. The SilkWorm 12000 or 3900 itself does not assume any particular operating system to be running on the host system. The only requirement is that the host system must support standard syslogd to receive error log messages from the SilkWorm 12000 or 3900.

For information on configuring the syslogd functionality, refer to the *Fabric OS Procedures Guide*.

Port Logs

The Fabric OS maintains an internal Port Log of all port activity. Each switch or logical switch maintains a log file for each port. Port Logs are circular log files that can save up to 8000 entries per logical switch. Once the log is full, the newest log entries overwrite the oldest log entries. Port Logs capture switch-to-device, device-to-switch, switch-to-switch, some deviceA-to-deviceB, and control information. Port Logs are not persistent and are lost over power-cycles and reboots.

Use the **portlogshow** command to display the Port Logs for a particular port.

Use the **portlogeventsshow** command to display the specific events reported for each port.

Refer to the *Fabric OS Procedures Guide* for information on interpreting the **portlogdump** command.

Note: The Port Log functionality is completely separate from the System Error Log functionality. Port Logs are typically used to troubleshoot device connections.

Panic Trace Log

The Panic Trace Log is created by a system watchdog process when problems are encountered in the Fabric OS kernel. These files build up in the kernel partition (typically because of failovers) and should be periodically deleted or downloaded using the **savecore** command. In case of a kernel panic, trace files are created that can be viewed with the **pdshow** command.

Software Watchdog Process

The Software Watchdog Process (SWD) is responsible for monitoring applications critical to the function of a healthy switch. The SWD holds a list of critical daemons and it expects them to ping periodically at a predetermined amount of time. This time varies per application.

In the event that an application fails to ping the SWD within the given amount of time, or if the application terminates unexpectedly, then the SWD activates and dumps information to the Panic Trace Log that enables Support to diagnose the unexpected error.

Use the **pdshow** command to view these files or the **savecore** command to FTP them to a host workstation.

Note: The Panic Trace Log files are intended for support purposes only, not for end user use.

System Console

The System Console displays messages through the serial port. If you telnet into the ethernet port, you will not receive console messages. The System Console displays both System Error Messages and Panic Trace Messages. These messages are only mirrored to the system console, and are always saved in one of the system logs.

View or Configure System Logs

The following commands are used to view or configure the error logs:

Table 1-1 Commands Used to View or Configure the System Logs

Command	Description
agtcfgdefault	Reset the SNMP recipients to default values.
agtcfgset	Configure the SNMP recipients.
agtcfgshow	Display the current configuration of the SNMP recipients.
errclear	Clear the error log.
errdump	Display the entire error log, without page breaks.
errnvlogsizeset	Set the size of the persistent error log.
errnvlogsizeshow	Display the size of the persistent error log.
errsavelvlset	Set the level threshold of messages saved to the error log.
errsavelvlshow	Show the level threshold of messages saved to the error log.
errshow	Display the entire error log, with page breaks.
memshow	Display the current memory usage of the switch.
pdshow	Display the contents of the Panic Trace Log.
porterrshow	Display the port error summary.

Table 1-1 Commands Used to View or Configure the System Logs (Continued)

Command	Description
portflagsshow	Display the port status bitmaps for all ports in a switch.
portlogclear	Clear the port log. If the port log is disabled, this commands enables it.
portlogdisable	Disable the port log facility.
portlogdump	Display the port log without page breaks.
portlogdumpport	Display the port log of specified port, without page breaks.
portlogeventshow	Displays which port log events are currently being reported.
portloginshow	Display port logins.
portlogpdisc	Set or clear the debug pdisc_flag.
portlogreset	Enable the port log facility.
portlogresize	Resize the port log to the specified number of entries.
portlogshow	Display the port log with page breaks.
portlogshowport	Display the port log of specified port, with page breaks.
portlogtypedisable	Disable an event from reporting to the port log. Port log events are described by the **portlogeventshow** command.
portlogtypeenable	Enable an event to report to the port log. Port log events are described by the **portlogeventshow** command.
savecore	Save or remove core files created by the kernel.
setdbg	Set the level of debug messages reported by a particular module.
seterrlvl	Set the level of errors reported by a particular module.
setverbose	Set the verbose level of a particular module within the Fabric OS.
supportshow	Executes a list of diagnostic and error display commands. This output is used by Support to diagnose and correct problems with the switch. The output from this command can be very long.
syslogdipadd	Add an IP address as a recipient of event/error messages.
syslogdipremove	Remove an IP address as a recipient of event/error messages.
syslogdipshow	View the currently configured IP addresses that are recipients of event/ error messages.

Reading a System Error Message

This section provides information about reading System Error Messages. System Error Messages are typically generated by the various modules in the Fabric OS. They are dumped in the System Error Log and, depending on severity, might be saved to memory or flash.

Viewing System Error Messages from Web Tools

To view the System Error Log for a switch from Web Tools:

1. Launch Web Tools.
2. Select the desired switch from the Fabric Tree. The Switch View displays.
3. Select the Switch Events button from the Switch View. A Switch Events Report appears.
4. View the switch events and messages.

Displaying the Error Log Without Page Breaks

To display the switch error log all at once:

1. Log in to the switch as the admin user.
2. Enter the **errdump** command at the command line.

Example:

```
switch:admin> errdump

Error 04
--------
0x576 (fabos): Mar 25 08:26:44 (1)
Switch: 1, Info TRACK-LOGIN, 4, Successful login

Error 03
--------
0x576 (fabos): Mar 24 16:01:44 (12)
Switch: 1, Info TRACK-CONFIG_CHANGE, 4, Config file change from task:ZNIPC

Error 02
--------
0x2f0 (fabos): Mar 24 15:07:01
Switch: 1, Warning FW-STATUS_SWITCH, 3, Switch status changed from HEALTHY/OK to
 Marginal/Warning

Error 01
--------
0x271 (fabos): Mar 24 15:04:06
Switch: 1, Info EM-BOOT, 4, Restart reason: Failover

switch:admin>
```

Displaying the Error Log with Page Breaks

To display the error log:

1. Log in to the switch as the admin user.
2. At the command line, enter the **errshow** command.

Example:

```
switch:admin> errshow

Error 497
--------
0x4a5 (fabos): Oct 03 04:40:14
Switch: 0, Info TRACK-LOGIN, 4, Successful login



Type <CR> to continue, Q<CR> to stop: q
```

Clearing the Switch Error Log

To clear the error log for a particular switch instance:

1. Log in to the switch as the admin user.
2. Enter the **errclear -p** command to clear only the persistent errors. The error log in RAM is not cleared.

   or

   Enter the **errclear** command (with no operands) to clear the RAM memory and remove persistent messages from the default **errshow** display.

   If no operand is specified, this command changes the way the error log appears in subsequent sessions. By default, the **errshow** command displays both the persistent and active log sessions. However, in future sessions you would have to use the **errshow -p** command to view persistent error messages.

The following example shows how to clear the persistent error log on the Active CP.

Example:

```
switch:admin> errclear -p
switch:admin>
```

Setting the Error Save Level of a Switch

To control types of messages that are saved in the persistent error log:

1. Log in to the switch as the admin user.
2. At the command line, enter the **errsavelvlset** command.

   The following example shows how to enable saving of Warning, Error, Critical, and Panic messages in the persistent error log.

Example:

```
switch:admin> errsavelvlset 3
switch:admin>
```

By default, all messages of type Panic and Critical are saved in the persistent log.

Displaying the Current Error Save Level Setting of a Switch

To find out the current value of the persistent error log save level for a given switch instance:

1. Log in to the switch as the admin user.
2. Enter the **errsavelvlshow** command at the command line.

The following example shows how to display current error log save level.

Example:

```
switch:admin> errsavelvlshow

 Current message save level is = 3

switch:admin>
```

The following example shows how to display current error log save level on the Standby CP for switch 0. The value -s is added to save the Standby CP.

Example:

```
switch:admin> errsavelvlshow -s 0

 Current message save level is = 3

switch:admin>
```

Resizing the Persistent Error Log

To resize the persistent error log of a switch to a new size specified by the operand `number_of_entries`:

1. Log in to the switch as the admin user.
2. At the command line, enter the **errnvlogsizeset** command.

The following example shows how to resize the persistent error log to 1500 entries.

Example:

```
switch:admin> errnvlogsizeset 1500

Persistent error log is  resized to store 1500 entries

switch:admin>
```

Example Error Log Message

The following example shows a sample message from the error log.

```
Error 1001
--------
0x253 (fabos): Nov 03 14:11:53
Switch: 1, Error EM-CP_ERR, 2, CP in slot 5 set to faulty because of CP ERROR
```

The fields in the error message are described in Table 1-2.

Table 1-2 Error Message Field Description

Example	Variable Name	Description
`Error 1001`	*Error Log Buffer Number*	Displays a rotating number that describes the position the message holds in your buffer. This number is not permanently affiliated with the error itself and should *not* be used when contacting Technical Support.
`Nov 03 14:11:53`	*Date and Time*	Displays the date and time the error message occurred.
`Switch: 1`	Switch: <*number*>	Displays the logical switch that was affected (will be 0 or 1).
`Error`	*Severity Level*	Displays the severity of the message: Panic, Critical, Error, Warning, or Information.
`EM-CP_ERR`	*Error Module - Error Code*	Displays the module name that generated the error and the code name for the error.

Table 1-2 Error Message Field Description (Continued)

Example	Variable Name	Description
2	*Severity Level*	Displays the severity of the error, in a numbered format: 0 = Panic 1 = Critical 2 = Error 3 = Warning 4 = Information 5 = Debug
CP in slot 5 set to faulty because of CP ERROR	*Error Description*	Displays error-specific data, such as the error reason.

Responding to a System Error Message

This section provides information on responding to System Error messages.

Looking Up an Error Message

Error messages are arranged in this manual by module. To look up an error message, determine the module and the error code and compare this with the Table of Contents to determine the location of the information for that error message. Information provided by this book:

- Message Text
- Firmware module that generated the error
- Module and Code name for the error
- Probable cause
- Appropriate response

Gather Information About the Problem

Common steps and questions to ask to help troubleshoot a System Error message:

1. Run **supportshow** and **pdshow**, save the output, and then provide them to Technical Support for assistance in troubleshooting.
2. Can you document the sequence of events?
3. Did a failover occur?
4. Was security enabled?
5. Was POST enabled?
6. Are serial port (console) logs available?
7. Which CP was master?
8. What was the last change made?

Common Responses

Listed below are common responses to System Error messages:

- Run **supportshow** and **pdshow**; then provide a copy to Technical Support.
- Gather logs.
- Watch for reoccurrence.
- Reinstall firmware.
- Reboot machine.
- Revert to previous firmware version.
- Call Support.

AS_ System Error Messages

Chapter 2

Alias Server (AS) provides a multicasting capability: a single frame can be delivered to multiple ports. The user defines a group of ports identified by the Alias ID and delivers a frame to that group using the Alias ID; the Alias Server daemon tracks the Alias ID.

AS-CTMALLOC

Message

```
<switch number> Error AS-CTMALLOC, 2, <variable> : ctMalloc for <number of bytes>
bytes failed <variable>
```

Probable Cause Memory allocation failure. Fabric OS error.

Recommended Action Copy the name of the error (AS-CTMALLOC) and call Technical Support.

Severity Error

Blade_System Error Messages

Chapter 3

Blade error messages are a result of faulty hardware, transient out-of-memory conditions, ASIC errors, or inconsistencies in the software state between a blade and the EM (Environment Monitor) module.

BLADE-FAULT

Message

```
<switch number> Critical BLADE-FAULT, 1, Faulting blade in slot <slot number>
```

Probable Cause A problem was reported with the blade specified in <*slot number*>.

Recommended Action Try cycling power on the specified blade using **slotpoweroff** and **slotpoweron**. If the error recurs, contact Technical Support.

Severity Critical

BLADE-INIT_FAIL

Message

```
<switch number> Critical BLADE-INIT_FAIL, 1, Init Failed: <reason string>, Slot:
<slot number>
```

Probable Cause The blade initiation failed for the specified <*slot number*>. The specified blade is faulted.

Recommended Action Additional blade fault messages will follow this error, to provide additional information. See specific error messages for recommended action.

Severity Critical

BLADE-OUT_OF_MEMORY

Message

```
<switch number> Critical BLADE-OUT_OF_MEMORY, 1, <function> : <failed function
call>, out of memory condition
```

Probable Cause

The switch is low on memory and failed to allocate new memory for an Information Unit.

The <*function*> will be “minis_rx_tasklet.”

The < *failed function call*> will be “iu_alloc failed.” This function call is for memory allocation for information units.

Recommended Action

This usually signifies a transient memory shortage. A non-bladed switch will automatically reboot. For a bladed switch, the active CP card will automatically failover, and the standby CP will become the active CP. If the error messge persists, contact Technical Support.

Severity

Critical

BLADE-REG_FAULT

Message

```
<switch number> Critical BLADE-REG_FAULT, 1, ASIC driver detected Slot <slot number>
port <port number> as faulty (reason: <reason>
```

Probable Cause

A blade regulation problem was reported on the specified <*slot number*>. The blade will be faulted.

Recommended Action

Resolve the specified <*reason*> as described in the error message. If the error persists, copy the error message and contact Technical Support.

Severity

Critical

Bloom_System Error Messages

Chapter 4

Bloom is the name of the ASIC used as the building block for Brocade's third-generation hardware platforms.

BLOOM-AVAILABLE_BUF_OVERFLOW

Message

```
<switch number> Panic BLOOM-AVAILABLE_BUF_OVERFLOW, 0, S<slot number>, P<port number>(<blade port number>): quadpt <quad number> available buffer overflow: avail <available buffers>
```

Probable Cause Buffer requested exceeds maximum available buffer number for the specified slot and port. The specified slot will be faulted.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-BAD_ID

Message

```
<switch number> Warning BLOOM-BAD_ID, 3, S<slot number>, P<port number>(<blade port number>): IU in <message string> has bad ID (S_ID = <SID number>, D_ID = <DID number>)
```

Probable Cause A bad source ID or destination ID was reported on the specified slot and port number.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Warning

BLOOM-BE_PORT_BUF_TO

Message

```
<switch number> Panic BLOOM-BE_PORT_BUF_TO, 0, S<slot number>, P<port number>(<blade
port number>): no buffers for the backend port, bufs_rdy=<buffer number>
```

Probable Cause No buffers are available for the backend port of the specified slot and port number. The specified slot will be disabled.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-BE_SYNC

Message

```
<switch number> Panic BLOOM-BE_SYNC, 0, S<slot number>, P<port number>(<blade port
number>): Backend port disabled due to sync problem, lli_status= <lli status number>
```

Probable Cause The backend port could not reach the sync state for the specified slot and blade port number. The specified blade port will be faulted.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-BE_TRUNK

Message

```
<switch number> Panic BLOOM-BE_TRUNK, 0, S<slot number>, P<port number>(<blade port
number>):Trunk group is down -- this blade is fault, lli_status=<LLI status number?>
```

Probable Cause The trunk group is down for the specified slot and port. The specified slot will be faulted. The Low Level Interface (LLI) status provides additional error information.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-BISR_FAILED

Message

```
<switch number> Panic BLOOM-BISR_FAILED, 0, S<slot number>, P<port number>(<blade
port number>):cmBisr failed. slot <number?> chip <chip number> fail <failure number>
done <done number> mask <done mask>
```

Probable Cause A failure of the Central Memory built-in self-repair was reported for the specified slot and port. The specified slot will be faulted.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-CMEM_ERR

Message

```
<switch number> Warning BLOOM-CMEM_ERR, 3, S<slot number>, P<port number>(<blade
port number>):cmem error, buf_error: <buffer error number>
```

Probable Cause A port Central Memory buffer error was reported for the specified slot and port.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Warning

BLOOM-CMI_ERR

Message

```
<switch number> Warning BLOOM-CMI_ERR, 0, S<slot number>, P<port number>(<blade port
number>):cmi error, err_status <CMI error number> (addr:<error status h/w address>),
cmi_st <cmi status number>
```

Probable Cause A CMI (Central Memory Interface) bus error was reported for the specified slot and port. The specified slot will be disabled.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-DISABLE_MINIS

Message

```
<switch number> Warning BLOOM-DISABLE_MINIS, 3, S<slot number>, P<port num-
ber>(<blade port number>):port fault reason = <reason number>, disable the mini-
switch.
```

Probable Cause A fault was reported for the specified port and slot while diagnostics was running. The miniswitch will be disabled for the specified slot and port number.

Recommended Action Run **portlogdisable** and **supportshow** to capture debug information from these commands and contact Technical Support. Technical Support might also ask for additional debug information from **POST** and **systemtest**. The error message details are used for debugging.

Severity Warning

BLOOM-EMB_PORT_BUF_TO

Message

```
<switch number> Panic BLOOM-EMB_PORT_BUF_TO, 0, S<slot number>, P<port num-
ber>(<blade port number>): no buffers for the embedded port <quad number>
```

Probable Cause The embedded processor port could not get the requested buffer for the specified slot and port. The specified slot will be faulted.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-EXCESSIVE_BUSY_MINI

Message

```
<switch number> Panic BLOOM-EXCESSIVE_BUSY_MINI, 0, S<slot number>, P<port num-
ber>(<blade port number>):quadpt <quad number> excessive busy_mini for ep: <embedded
port buffer value>
```

Probable Cause The mini buffer requested from the embedded processor port exceeds maximum available buffer number for the specified slot and port.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-EXCESSIVE_RCC_VC

Message

```
<switch number> Panic BLOOM-EXCESSIVE_RCC_VC, 0, S<slot number>, P<port num-
ber>(<blade port number>):excessive rcc_vc: current = <current RCC VC number>,
default = <default RCC VC number>
```

Probable Cause The Receive Credit Counter (RCC) credits for receiving frames has exceeded the default buffers granted on the specified virtual channel. The specified slot will be faulted.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-FDET_BUFTAG

Message

```
<switch number> Panic BLOOM-FDET_BUFTAG, 0, S<slot number>, P<port number>: SOF
<start of Frame/Buffer Tag> or EOF <end of Frame/Buffer Tag> buftag !=<Expected
Buffer Tag
```

Probable Cause A mismatched frame buffer number identifier (buffer tag) was received on the specified slot and port. The specified slot will be faulted.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-FDET_ERR

Message

```
<switch number> Panic BLOOM-FDET_ERR, 0, S<slot number>, P<port number> (<blade port
number>): fdet(<error message string>
```

Probable Cause A hardware internal failure detection error was reported for the specified slot and port. The specified slot will be faulted.

Recommended Action Copy error message and call Technical Support.

Severity Panic

BLOOM-FDET_ERR_X

Message

```
<switch number> Panic BLOOM-FDET_ERR_X, 0, S<slot number>, P<port number>:
fdet(<identification message string>
```

Probable Cause This hardware internal failure detect supplemental message (see BLOOM-FDET_ERR) is used to trigger additional debugging data for internal manufacturing debugging.

Recommended Action Copy the identification message string and call Technical Support.

Severity Panic

BLOOM-INCONSISTENT

Message

```
<switch number> Panic BLOOM-INCONSISTENT, 0, inconsistent in <message string>
```

Probable Cause Inconsistency reported in the bloom driver. One of the following inconsistent scenarios was reported:

- *<List D trigger>*
  Probable Cause: Unexpected filter LISTD frame received.
- *<Mix ASIC revs>*
  Probable Cause: Mixed BLOOM ASIC chip versions.
- *<Virtual pool usage>*
  Probable Cause: Mismatch between allocated and expected virtual memory locations.
- *<Missing sorted cam>*
  Probable Cause: Missing CAM entry from the sorted CAM table.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-INCONSISTENT_EXT

Message

```
<switch number> Panic BLOOM-INCONSISTENT_EXT, 0, S<slot number>, P<port num-
ber>(<blade port number>): inconsistent in <message>
```

Probable Cause

Inconsistency was reported in the bloom driver. The specific slot and port number is reported in this error, and the <*message*> provides additional information for troubleshooting. One of the following inconsistent scenarios was reported:

- <Process require list is empty2>
  Probable Cause: An unexpected processing-required interrupt was reported for the specified slot and port. The specified port will be faulted.
- <BloompollLism odd_buf <buffer number>
  Probable Cause: An invalid buffer number was obtained for LISM frame transmission. The buffer allocation will be retried.
- <Bloomwrrxbdesc odd_buf <buffer number> to blm <address>
  Probable Cause: An invalid buffer number was obtained for frame transmission.
- <RX overflow/TX FIFO under/overflow. buf_err=<buffer error>
  Probable Cause: An unexpected central memory buffer error was reported for the specified slot and port.
- <Detect error port stuck INT_CMEM_ERR @ 2GPS>
  Probable Cause: An unexpected central memory buffer error was reported for the specified slot and 2G port.
- <Error: unknown CMEM error type <error type>
  Probable Cause: An unknown central memory error was reported for the specified slot and port.
- <No filter port>
  Probable Cause: No matching filter port was reported for the specified slot and port.
- <BloomBXOnline>
  Probable Cause: No user port was found in the miniswitch or on the specified slot and port.
- <RX Overflow on 1G =>CMEM Error buf_error=<buffer error>
  Probable Cause: An unexpected central memory error was reported for the specified slot and 1G port. The specified slot will be faulted.
- <LISM no nuffer>
  Probable Cause: No buffer is available for sending LISM frame on the specified slot and port.
- <Sticky secondary Tx parity error>
  Probable Cause: A central memory error was reported and forced a TX parity error for the specified slot and port. The specified slot will be faulted.
- <Bad LoadBuf state <state>>
  Probable Cause: An unexpected state was reported while obtaining buffers for the specified slot and port.

Recommended Action

Run **portlogdisable** and **supportshow** (in order) to capture debug information from these commands and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity

Panic

BLOOM-INVALID_LIST_TRIGGER

Message

```
<switch number> Panic BLOOM-INVALID_LIST_TRIGGER, 0, S<slot number>, P<port num-
ber>(<blade port number>): Unknown list triggered
```

Probable Cause An unknown filter list interrupt was reported for the specified slot and port. The specified slot will be faulted.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-LISTD_TRIGGER

Message

```
<switch number> Panic BLOOM-LISTD_TRIGGER, 0, S<slot number>, P<port number>(<blade
port number>): List D triggered
```

Probable Cause An unexpected filter list interrupt was reported for the specified slot and port. The specified slot will be faulted.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-MALLOC

Message

```
<switch number> Panic BLOOM-MALLOC, 0, malloc failed in <message string>
```

Probable Cause

One of the following memory allocation failures was reported:

- *<bloomPortInstantiate>*
  Probable Cause: Failed initializing bloom port data structure.
- *<filterQuadAlloc>*
  Probable Cause: Failed to allocate filter zone group data structure.
- *<zone group buffer>*
  Probable Cause: Failed to allocate zone group data structure.
- *<cam zone buffer>*
  Probable Cause: Failed to allocate cam zone buffer structure.
- *<vital hardware>*
  Probable Cause: Failed to allocate memory for virtual pool structure.
- *<real cam next>*
  Probable Cause: Failed to allocate memory for real cam next-array structure.
- *<real to virtual cam table>*
  Probable Cause: Failed to allocate memory for real-to-virtual translation array.
- *<real zone group next>*
  Probable Cause: Failed to allocate memory for dedicated real zone group-next index.
- *<real to virtual>*
  Probable Cause: Failed to allocate memory for dedicated real-to-virtual translation structure.
- *<Not enough memory for virtual>*
  Probable Cause: Not enough memory for virtual hardware function.
- *<bloomChipInstanitate>*
  Probable Cause: Failed initializing chip data structure.

Recommended Action

Copy the error message string, run **memshow** and **supportshow** to capture debug information, and then call Technical Support.

Severity

Panic

BLOOM-MALLOC_EXT

Message

```
<switch number> Panic BLOOM-MALLOC_EXT, 0, S<slot number>, P<port number>(<blade
port number>):: malloc failed in <message string>
```

Probable Cause One of the following memory allocation failures was reported for the specified slot and port:

- *<bloomPortInstantiate>*
  Probable Cause: Failed initializing data structure in bloomPortInstantiate.
- *<bloomFAN - 1>*
  Probable Cause: Failed to allocate Fabric Address Notification IU location 1.
- *<bloomFAN - 2>*
  Probable Cause: Failed to allocate Fabric Address Notification IU location 2.
- *<bloomWrRetTxBuffer>*
  Probable Cause: Failed to allocate IU in bloomWrRetTxBuffer().
- *<bloomBufAllocIU>*
  Probable Cause: Failed to allocate IU in bloomBufAllocIU().

Recommended Action Copy the error message string, run **memshow** and **supportshow** to capture debug information, and then call Technical Support.

Severity Panic

BLOOM-NO_BUFFERS

Message

```
<switch number> Warning BLOOM-NO_BUFFERS, 3, S<slot number>, P<port number>(<blade
port number>): port <port number> disabled due to lack of buffers
```

Probable Cause The specified slot and port were disabled due to lack of available buffers. This usually happens when one or more ports in the same quad are configured as long distance.

Recommended Action Disable one or more other ports in the same quad in order to enable the specified slot and port.

Severity Warning

BLOOM-NULL_PTR

Message

```
<switch number> Panic BLOOM-NULL_PTR, 0, NULL ptr in <message string>
```

Probable Cause

One of the following NULL pointer scenarios was reported:

- *<bloomPortAttach: p>*
  Probable Cause: NULL p pointer detected in bloomPortAttach().
- *<bloomPortAttach: qdpblm>*
  Probable Cause: NULL quad pointer detected in bloomPortAttach().
- *<bloomChipAttach: chblm>*
  Probable Cause: NULL chblm pointer detected in bloomChipAttach().
- *<bloomChipAttach: c>*
  Probable Cause: NULL virtual chip pointer detected in bloomChipAttach().
- *<bloomChipAttach>*
  Probable Cause: NULL memory map pointer detected in bloomChipAttach().

Recommended Action

Copy the error message, run **supportshow** to capture debug information, and contact Technical Support with information.

Severity

Panic

BLOOM-NULL_PTR_EXT

Message

```
<switch number> Panic BLOOM-NULL_PTR_EXT, 0, S<slot number>, P<port number>(<blade
port number>):: NULL ptr in <message string>
```

Probable Cause

One of the following NULL pointer scenarios was reported:

- <bloomPortInstantiate>
  Probable Cause: NULL pointer detected in bloomPortInstantiate().
- *<bloomPortInit>*
  Probable Cause: NULL pointer detected in bloomPortInit().
- *<bloomSendLinitFrame>*
  Probable Cause: NULL pointer detected in bloomSendLinitFrame().

Recommended Action

Copy the error message, run **supportshow** to capture debug information, and contact Technical Support with information.

Severity

Panic

BLOOM-OVERRUN_INT_RCVD

Message

```
<switch number> Panic BLOOM-OVERRUN_INT_RCVD, 0, S<slot number>, P<port num-
ber>(<blade port number>):mem overrun, quad: <quad number>
```

Probable Cause A central memory buffer could not be allocated for the specified slot and port. The specified slot and port will be faulted.

Recommended Action Run **portlogdisable** and **supportshow** (in order) to capture debug information and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-PORT_INIT_STUCK

Message

```
<switch number> Panic BLOOM-PORT_INIT_STUCK, 0, S<slot number>, P<port num-
ber>(<blade port number>):port init stuck in <messages string> loop <loop status>
<TX from RX status> busy_buf[4] <busy buffer>
```

Probable Cause One of the following scenarios was busy transitioning to the next state on the specified slot and port:

- *<bloomLismCleanup: LIP received>*
  Probable Cause: Loop initialization frames could not be flushed after receiving LIP on the specified slot and port.
- *<bloomLismCleanup: become Master>*
  Probable Cause: Loop initialization frames could not be flushed after becoming loop master on the specified slot and port.
- *<bloomLismCleanup: Not Master>*
  Probable Cause: Loop initialization frames could not be flushed after the specified slot and port determined it was not the loop master.
- *<going to the OLD_PORT state>*
  Probable Cause: The specified slot and port could not transition to the OLD_PORT state.
- *<waiting for LPC OPEN state>*
  Probable Cause: The specified slot and port (loop port control) could not transition to the OPEN state.
- *<entering OPEN_INIT ALPA>*
  Probable Cause: The specified slot and port could not transition to the OPEN_INIT_ALPA state.

Recommended Action Copy the error message information, run **portlogdisable** and **supportshow** (in order) to capture debug information, and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-RAM_PAR_ERR

Message

```
<switch number> Panic BLOOM-RAM_PAR_ERR, 0, S<slot number>, P<port number>(<blade
port number>): epi1_status: <embedded port status> R2T: <RX to TX ram parity> TFR:
<TX to RX ram parity> STATS: <statistics> SMI: <SMI> FLT: <filter> PHAN: <phantom>
EFD: <failure detect>
```

Probable Cause RAM parity error was reported for the specified slot and port. The specified slot will be faulted.

Recommended Action Copy the error message information, run **portlogdisable** and **supportshow** (in order) to capture debug information, and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-RAMINIT_TO

Message

```
<switch number> Critical BLOOM-RAMINIT_TO, 1, S<slot number>, P<port number>(<blade
port number>):port <port number> failed to init RAM @ <offset>, busy status=<busy
index>
```

Probable Cause RAM initialization cannot be completed within the expected time for the specified slot and port number.

Recommended Action Copy the error message information, run **portlogdisable** and **supportshow** (in order) to capture debug information, and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Critical

BLOOM-SMI_STUCK_WR

Message

```
<switch number> Warning BLOOM-SMI_STUCK_RD, 3, S<slot number>, P<port number>(<blade
port number>): read mini port <miniswitch port> stuck at SMI op=<memory con-
trol>(prev=<direction>)
```

Probable Cause The specified slot and port was unable to write into central memory.

Recommended Action Copy the error message information, run **portlogdisable** and **supportshow** (in order) to capture debug information, and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Warning

BLOOM-SPEED_TO

Message

```
<switch number> Info BLOOM-SPEED_TO, 0, S<slot number>, P<port number>(<blade port
number>): Speed negotiation failed:  Faulting port <port>
```

Probable Cause The specified slot and port was unable to negotiate speed. The specified slot and port will be faulted and speed negotiation will be restarted.

Recommended Action If problem persists, replace cable, SFP, or check device connected to the specified slot and port. If problem continues to persist, run **portlogdisable** and **supportshow** (in order) to capture debug information from these commands and contact Technical Support.

Severity Information

BLOOM-SUSPENDED_INT_RCVD

Message

```
<switch number> Panic BLOOM-SUSPENDED_INT_RCVD, 0, S<slot number>, P<port num-
ber>(<blade port number>):int suspended (status=<interrupt status>, mask=<interrupt
mask>)
```

Probable Cause An unexpected interrupt was reported for the specified slot and port. The specified slot will be faulted.

Recommended Action Copy the error message information, run **portlogdisable** and **supportshow** (in order) to capture debug information, and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Panic

BLOOM-TRNK_MSTR_DWN

Message

```
<switch number> Warning BLOOM-TRNK_MSTR_DWN, 3, S<slot number>, P<port num-
ber>(<blade port number>):: Trunk master port <trunk master port> goes OFFLINE in
trunk group [trunk group range]
```

Probable Cause The master trunk port is offline in the specified trunk group. The Master ISL has been physically disconnected or has failed.

Recommended Action Determine whether the Master ISL has been physically disconnected or disabled. If not, enter the **portlogdump** and **fabstateshow** commands, save the output, and contact Technical Support for assistance.

Severity Warning

BLOOM-TRNK_SLV_DWN

Message

```
<switch number> Warning BLOOM-TRNK_SLV_DWN, 3, S<slot number>, P<port number>(<blade
port number>): Trunk slave port <trunk slaveport> goes OFFLINE in trunk group [trunk
group]\
```

Probable Cause The slave trunk port is offline in the specified trunk group. A subordinate ISL has been physically disconnected or has failed.

Recommended Action Determine whether a subordinate ISL has been physically disconnected or disabled. If not, enter the **portlogdump** and **fabstateshow** commands, save the output, and contact Technical Support for assistance.

Severity Warning

BLOOM-TX_PAR_FDET_ERR

Message

```
<switch number> Panic BLOOM-TX_PAR_FDET_ERR, 0, S<slot number>, P<port num-
ber>(<blade port number>):fdet<error message string>
```

Probable Cause A hardware transmit failure-detection error was reported for the specified slot and port.

Recommended Action Copy the error message and call Technical Support.

Severity Panic

BLOOM-TX_PARITY_ERR

Message

```
<switch number> Warning BLOOM-TX_PARITY_ERR, 3, S<slot number>, P<port num-
ber>(<blade port number>):tx parity error, int_status=<interrupt status>
```

Probable Cause The indicated slot and port detected a parity error in the transmit data stream. The specified slot will be faulted.

Recommended Action Copy the error message information, run **portlogdisable** and **supportshow** (in order) to capture debug information, and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity Warning

CFGLOADER_System Error Messages

Chapter 5

The Configuration Loader (CFGLOADER) is the first application to run on the system. Its main responsibility is to determine the system platform and obtain the appropriate configuration data for other applications. After completion, CFGLOADER exits and does not run again until the next reboot.

CFGLOADER-HIL_FAIL

Message

```
<switch number> Critical, CFGLOADER-HIL_FAIL, 1, Config Loader
failed: <failure description> (err= error number)
```

Probable Cause

The configuration loader cannot read the specified data <*failure description*>. The error number provides debugging information.

The following variables might be displayed in the <*failure description*>:

- For bladed and non-bladed switches:
  - hilGetIOXinfo - get extSysID
  - hilGetIOXinfo - get SysID
  - hilGetIPAddr - get default
  - hilGetSwName - get default
  - hilGetWWNNum - get default
- For bladed switches only:
  - hilGetNumSwitch - get default
  - hilGetChassisHA - get default
  - hilGetFruHder - WWN card has bad FRU - get default

Recommended Action

If the rest of the system initialization continues to run okay, the user can reconfigure default values to the real values. If the rest of the system initialization has errors, reboot or power-cycle the CP Card. Verify that the CP Cards and WWN Cards are plugged in correctly. If error recurs, contact Technical Support.

Severity

Critical

CFGLOADER-IOCTL_FAIL

Message

```
<switch number> Critical, CFGLOADER-IOCTL_FAIL, 1, Config Loader
failed: <failure type> <failure description>
```

Probable Cause The configuration loader cannot communicate with the system driver to download the system configuration. The firmware might be corrupted. The following descriptions might be displayed:

<failure type>	*<failure description>*
IOC_M_CLEAR_ERR	*Can't drop House-Keeping Self-Fence*
IOC_M_SET_NUMCP	*Can't set up CP hot-plug support*
sysCrtlGetCpSlot	*Can't locate CP slot*
IOC_SM_SET_MODEL	*Can't set Platform Model information*
IOC_SM_SET_CONFIG	*Can't set generic configuration*

Recommended Action Download new firmware and reboot.

Severity Critical

CFGLOADER-LOADER_FAIL

Message

```
<switch number> Critical, CFGLOADER-LOADER_FAIL, 1, Config Loader
failed: <failure description>
```

Probable Cause The configuration loader failed to open the system driver for communication. The failure might be due to a bad CP Card FRU; the FRU header might be corrupted or there might be i2c bus access problems resulting from a data corruption or an unsuccessful read.

The following <*failure descriptions*> might be displayed:

- sysModInit
- Config loader failed, also failed to assert CP error
- Config loader failed, assert CP error
- This CP has bad FRU (<slot number = 5 or 6>)

Recommended Action Reboot or power-cycle the switch. If problem persists, replace the CP card and reboot/power-cycle again. If error recurs, contact Technical Support.

Severity Critical

CFGLOADER-MALLOC

Message

```
<switch number> Critical, CFGLOADER-MALLOC, 1, Config Loader
failed: <failure description>
```

Probable Cause Configuration loader cannot allocate any memory for its operation. The system might have a memory leak or corrupted firmware. The <*failure description*> reads as follows:

- No memory for config loader data (InitData)

Recommended Action Download new firmware and reboot. If the problem is not resolved, contact Technical Support.

Severity Critical

CFGLOADER-UNEXPECTED_VAL

Message

```
<switch number> Critical, CFGLOADER-UNEXPECTED_VAL, 1, <failure
description> (val=0x<value>)
```

Probable Cause Neither HIL (the Hardware Independent Layer application) nor Configuration Loader could detect any CP Card or WWN Card in the system.

The following <*failure descriptions*> might be displayed:

- HIL detects no CP exists in the system
- Wrong Extended SystemID
- Wrong SystemID
- Invalid number of switches - get default
- There is no WWN Card in the system - no response from WWN Card
- WWN Card has no power, consider device absent - HIL and CFGLOADER read something from the WWN Card, but detect WWN Card does not have adequate power.

Recommended Action For Wrong Extended System ID and Wrong System ID, verify that the SystemID is valid.

For all other <*failure descriptions*>, verify that the CP Card(s) or WWN Card, as indicated in description, are seated correctly. Power-cycle the switch.

If the problem persists, replace the CP Card or WWN Card, as appropriate, or contact Technical Support.

Severity Critical

CHIPS_System Error Messages

Chapter 6

The CHIPS error messages come from the blade driver for the ASIC chip.

CHIPS-EXCESSIVE_CHIP_INT

Message

```
<switch number> Panic CHIPS-EXCESSIVE_CHIP_INT, 0, Busy with emb-port int. for chip
<chip number> in minis <mini switch number> on blade <blade number>, chip int. is
disabled. interrupt status=<interrupt status>
```

Probable Cause

Too many interrupts in the embedded port caused the specified chip to be disabled. The probable cause is too many abnormal frames; the chip is disabled to prevent the CP from becoming too busy.

Recommended Action

To recover from this problem:

- On a bladed switch, perform the following commands: **slotpoweroff** <*blade number*> and then **slotpoweron** <*blade number*>.
- On a non-bladed switch, reboot or power-cycle the switch.

If the problem recurs, run **portlogdisable** and **supportshow** (in order) to capture debug information from these commands and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity

Panic

CHIPS-EXCESSIVE_PORT_INT

Message

```
<switch number> Info CHIPS-EXCESSIVE_PORT_INT, 4, bport <blade port number> sta-
tus=<interrupt status>
```

or

```
<switch number> Info CHIPS-EXCESSIVE_PORT_INT, 4, bport <blade port number> sta-
tus=<interrupt status>
Port <user port number> will be re-enabled in 1 minute. Check cable, gbic and targets
if this port is faulted again.
```

Probable Cause

The first error message example appears if the specified backend port is faulted due to too many interrupts. The port will remain in a faulted state for one minute and will then be reenabled.

The second error message example appears when the specified port is a frontend user port.

This problem could be caused by a bad cable, GBIC, or devices connected to the specified port.

Recommended Action

Check for faulty cable, GBIC, or devices attached to the specified port.

If the error recurs, run **portlogdisable** and **supportshow** (in order) to capture debug information from these commands and contact Technical Support. Technical Support might also ask for additional debug information from POST and **systemtest**.

Severity

Information

Chapter 7

DIAG_System Error Messages

The DIAG error message module provides error messages for hardware failures. Each error message string provides the switch number, the severity level, and the name of the error message.

DIAG-ACTTEST

Message

```
<switch number> Critical DIAG-ACTTEST, 1, <test name>, pass <number>,
<port ID> Failed filter test <test number>: action type sb: <action name>
act:<action name>
```

Probable Cause During filter test, the action type of the received frame is not the same action type as the sent frame. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card in the specified slot.

Severity Critical

DIAG-BADINT

Message

```
<switch number> Critical DIAG-BADINT, 1, <test name>, pass <number>,
<port ID> <subtest name> got interrupt,int_status=<interrupt number> when not
expecting one
```

Probable Cause While running <*test name*>, the switch experienced an unexpected interrupt on pass <*number*> at the specified <*port ID*>, running <*subtest name*>. The interrupt status is defined by <*interrupt number*>. Probable cause is an ASIC failure.

Recommended Action Replace 16-Port Card containing the specified <*port ID*>.

Severity Critical

DIAG-BUS_TIMEOUT

Message

```
<switch number> Critical DIAG-BUS_TIMEOUT, 1, <test name>,
<port ID> BTO accessing <register name> Register at Address <register address>,
```

Probable Cause The ASIC register or the ASIC SRAM did not respond to an ASIC data access. The probable cause is an ASIC failure.

Recommended Action Replace 16-Port Card containing the specified *<port ID>*.

Severity Critical

DIAG-CAMINIT

Message

```
<switch number> Critical DIAG-CAMINIT, 1, <test name>, pass <number>,
<port ID> Failed to Init: <reason>
```

Probable Cause The specified port failed to initialize due to one of the following reasons:

- The switch is not disabled.
- The diagnostic queue is absent.
- The memory allocation (MALLOC) failed.
- A chip is not present.
- The port is not in loopback mode.
- The port is not active.

Recommended Action Retry, then reboot (or failover) if necessary. If the problem recurs, replace the mainboard assembly.

Severity Critical

DIAG-CAMSID

Message

```
<switch number> Critical DIAG-CAMSID, 1, <test name>, pass <number>,
<port ID> <no> translation test,received <source ID>, transmitted <expected source
ID>
```

Probable Cause The ASIC failed the Source ID non-translation test or the translation test. The *<source ID>* in the received frame must match the *<expected source ID>* in the transmitted data. An ASIC failure is the probable cause.

Recommended Action Replace mainboard assembly.

Severity Critical

DIAG-CANTRCV

Message

```
<switch number> Critical DIAG-CANTRCV, 1, <test name>, pass <number>,
<port ID> Cannot Receive Frame: portReceive status: <receiver status code>
iu_status: <IU status code>
```

Probable Cause The port timed out; it either did not receive a message in the port receiving message queue or it returned a bad receive buffer status. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card containing the specified <*portID*>.

Severity Critical

DIAG-CANTXMIT

Message

```
<switch number> Critical DIAG-CAMINIT, 1, <test name>, pass <number>,
<port ID> Cannot Transmit Frame: portTransmit returns <transmitter status>
```

Probable Cause The specified port failed to transmit frames. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card containing the specified <*portID*>.

Severity Critical

DIAG-CLEARERR

Message

```
<switch number> Info DIAG-CLEARERR, 3, <port ID> Diagnostics Error Cleared
```

Probable Cause The diagnostic error flag (OK or BAD) for the specified port is cleared.

Recommended Action No action is required.

Severity Informational

DIAG-CMBISRF

Message

```
<switch number> Critical DIAG-CMBISRF, 1, <test name>, pass <number>, <port ID>
<internal port number>, Ch <slot number/chip number> BISR,BIST Self-Test Fail,
RAMs fail bitmap: is <actual bitmap> sb <expected bitmap> er <error bitmap>
```

Probable Cause The ASIC central memory failed to complete the Built-in Self Repair (BISR) within the timeout period. As a result, any bad memory cells in the central memory are not repaired. When the BISR fails, the Built-in Self Test (BIST) runs automatically and will fail also. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card containing the specified <*portID*>.

Severity Critical

DIAG-CMBISRTO

Message

```
<switch number> Critical DIAG-CMBISRTO, 1, <test name>, pass <number>
<port ID> <internal port number>, Ch <slot number/chip number> BISR,BIST Timed
Out,RAMs done bitmap: Err Bits <four digit bitmap>
```

Probable Cause The ASIC central memory failed to complete the Built-in Self Repair (BISR) within the timeout period. When the BISR fails, the Built-in Self Test (BIST) runs automatically and will fail also. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card containing the specified <*portID*>.

Severity Critical

DIAG-CMERRPTN

Message

```
<switch number> Critical DIAG-CMERRPTN, 1, <test name>, pass <number>,
<port ID> Offs <line offset> <CMEM error type> at wrong port, <actual port number> sb
<expected port number>,
```

Probable Cause The <*central memory error type*> detected at the wrong port <*actual port number*>, should be at the <*expected port number*>. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-CMERRTYPE

Message

```
<switch number> Critical DIAG-CMERRTYPE, 1, <test name>, pass <number>,
Pt <source slot/ chip (blade port) -> dest slot/chip (blade port)> Offs <line offset>
Wrong error type. Pt <port number> is <actual error> sb <expected error>,
```

Probable Cause The destination port received the wrong central memory (CMEM) <*actual error*>; should be <*expected error*>. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-CMICKSUM

Message

```
<switch number> Critical DIAG-CMICKSUM, 1, <test name>, pass <number>,
<port ID> (bad | good | NOT TARGET) Cksum Test,
bit6 is <actual bit state> sb <expected bit state>, Pt<CMI error chip number>,
```

Probable Cause The CMI (Central Memory Interface) test detected checksum failure. An ASIC or 16-Port Card failure was reported. Depending on the test involved, this could happen during bad checksum test, good checksum test, or NOT TARGET checksum test.

- Bad checksum test : CMI error bit <bit6> should be set in CMI error state register.
- Good checksum test : CMI error bit <bit6> should not be set in CMI error state register.
- NOT TARGET checksum test: CMI error bit <bit6> should not be set in CMI error state register.

Recommended Action Replace the ASIC or 16-Port Card.

Severity Critical

DIAG-CMIDATA

Message

```
<switch number> Critical DIAG-CMIDATA, 1, <test name>, pass <number>,
<port ID pair> RX Data is <actual data> sb <expected data> er <error bits>,
```

Probable Cause The CMI (Central Memory Interface) test received unexpected CMI test data <bit 0-15> from CMI self-test register.

Recommended Action Replace the ASIC or 16-Port Card.

Severity Critical

DIAG-CMIINVCAP

Message

```
<switch number> Critical DIAG-CMIINVCAP, 1, <test name>, pass <number>,
<port ID pair>: <port ID> erroneous CMI Capture Flag (bit31-1),
```

Probable Cause Erroneous CMI (Central Memory Interface) capture flag was detected. In other words, the CMI capture flag was set on the incorrect port. The CMI capture flag located in bit 31 of a CMI self-test register indicates that a CMI self-test message was received from the CMI bus.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-CMINCBISR

Message

```
<switch number> Critical DIAG-CMINCBISR, 1, <test name>, pass <number>,
<port ID> inconsistent BISR result RAM# <RAM number> previous repair <previous solu-
tion> current repair <current solution>
```

Probable Cause The test *<test name>* attempted to verify that the repair solution from BISR (Built-in Self Repair) is consistent but the test detected an inconsistent result. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-CMINOCAP

Message

```
<switch number> Critical DIAG-CMINOCAP, 1, <test name>, pass <number>,
<port ID pair>: RX Pt <port ID> No CMI Capture Flag (bit31-0),
```

Probable Cause There is no CMI (Central Memory Interface) capture flag. An ASIC or 16-Port Card failure is the probable cause. The CMI flag indicates that a CMI self-test message was received from the CMI bus.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-CMISA1

Message

```
<switch number> Critical DIAG-CMISA1, 1, <test name>, pass <number>,
<port ID> TX Pt CMI Self-Test Start bit30 s-a-1,
```

Probable Cause The CMI (Central Memory Interface) self-test started, but "Self -Test Start flag <bit30>" has never been cleared. An ASIC failure is the probable cause. The "Self-Test Start bit" is expected to be cleared automatically once the self-test message is sent.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-CMNOBUF

Message

```
<switch number> Critical DIAG-CMNOBUF, 1, <test name>, pass <number>,
<port ID> No more buffers
```

Probable Cause The specified port could not find an available buffer for testing. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-CMNONPRIME

Message

```
<switch number> Critical DIAG-CMNONPRIME, 1, <test name>, pass <number>,
<port ID> BISR non-prime part
RAM# <ram number>: <repair solution> (<num> bad rows, <num> redundant rows)
```

Probable Cause The test <*test name*> expected to find prime ASIC parts (without any bad rows of cells in central memory). However, it detected a number of bad rows of cells in the specified ASIC.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-CMRWPERR

Message

```
<switch number> Critical DIAG-CMRWPERR, 1, <test name>, pass <number>,
<port ID> RW parity error,
IntStatReg <register value> BufMemErrReg <register value>
```

Probable Cause The test *<test name>* detects a parity error in the interrupt status register when it is testing the central memory. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-CMTO

Message

```
<switch number> Critical DIAG-CMTO, 1, <test name>, pass <number>,
<port ID> timeout,
MEM_RUNNING bit 0 Stuck High,
```

Probable Cause A central memory timeout occurred during write access. The initiated data transfer did not complete within the timeout period. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-DATA

Message

```
<switch number> Critical DIAG-DATA, 1, <test name>, pass <number>,
<port ID pair> Payld Byte <index> is <actual iu data> sb <expected iu data>
```

Probable Cause The payload received by the specified *<port ID>* did not match the transmitted payload. A fibre cable, media, or 16-Port Card/ASIC failure is the probable cause.

Recommended Action Replace the fibre cable, media, or 16-Port Card.

Severity Critical

DIAG-DEC_RWTEST

Message

```
<switch number> Critical DIAG-DEC_RWTEST, 1, <test name>, pass <number>,
<port ID> Failed: <register name> <prerequisite flags>
r=<pattern number> c=<result flags>
```

Probable Cause The ASIC internal registers failed the read-modify-write operation. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-EPI1_STATUS_ERR

Message

```
<switch number> Critical DIAG-EPI1_STATUS_ERR, 1, <test name>, pass <number>,
<port ID> <port speed> Embedded Port Interrupt 1 Status Error: <status>
```

Probable Cause When the port is in force-failure mode, the receiving (RX) port interrupt is in *bad finish message* error status. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-ERRSTAT

Message

```
<switch number> Critical DIAG-ERRSTAT, 1, <test name>, pass <number>,
<port ID> <counter name> Error Counter is <count> sb 0,
```

Probable Cause One of the ASIC internal counters, *<counter name>*, detected an error. A fibre cable, media, or 16-Port Card/ASIC failure is the probable cause.

Recommended Action Replace the fibre cable, media, or 16-Port Card.

Severity Critical

DIAG-ERRSTATS

Message

```
<switch number> Error DIAG-ERRSTATS, 2, <test name>, pass <number>,
<port ID> <counter name> Error Counter is <count> sb 0,
```

Probable Cause An ASIC internal error counter detected an error condition. A fibre cable, media, or 16-Port Card/ASIC failure is the probable cause.

Recommended Action Replace the fibre cable, media, or 16-Port Card.

Severity Error

DIAG-FDET_PERR

Message

```
<switch number> Critical DIAG-FDET_PERR, 1, <test name>, pass <number>,
<port ID> <port speed> Failure Detection RAM Parity Error: <status>
```

Probable Cause An ASIC internal failure detect memory found a parity error. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-FINISH_MSG_ERR

Message

```
<switch number> Critical DIAG-FINISH_MSG_ERR, 1, <test name>, pass <number>,
<port ID> <port speed> Finish Msg Error: <status>
```

Probable Cause An error was detected by the ASIC frame finish message handling logic. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-FLTINIT

Message

```
<switch number> Critical DIAG-FLTINIT, 1, <test name>, pass <number>,
<port ID> Failed to Init: <reason>
```

Probable Cause The specified port failed to initialize during filter test due to one of the following reasons:

- The switch is not disabled.
- The diagnostic queue is absent.
- The memory allocation (MALLOC) failed.
- A chip is not present.
- The port is not in loopback mode.

Recommended Action Retry, then reboot (or failover) if necessary. If the problem persists, replace the 16-Port Card or the mainboard assembly.

Severity Critical

DIAG-FLTRCV

Message

```
<switch number> Critical DIAG-FLTRCV, 1, <test name>, pass <number>,
<port ID> Failed to receive frame: status: <status>
```

Probable Cause An error was detected by the ASIC internal CAM (Content Addressable Memory) filtering logic.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-FLTXMIT

Message

```
<switch number> Critical DIAG-FLTXMIT, 1, <test name>, pass <number>,
<port ID> Cannot Transmit Frame: portTransmit returns <status>
```

Probable Cause The specified port failed to transmit frames. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-FORCEERR

Message

```
<switch number> Critical DIAG-FORCEERR, 1, <port ID> Forced error
```

Probable Cause The port has been forced to an error state.

Recommended Action Run the command **diagclearerror** to clear error condition.

Severity Critical

DIAG-FTPRT_STATUS_ERR

Message

```
<switch number> Critical DIAG-FTPRT_STATUS_ERR, 1, <test name>, pass <number>,
<port ID> <port speed> Frame Tracking Port Status Error,
Exp: <port status> Act: <port status>,
<frame tracking> <frame tracking>
```

Probable Cause If the port is in force-failure mode, this message indicates that incorrect frame-tracking port status was found.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-INC_RWTEST

Message

```
<switch number> Critical DIAG-INC_RWTEST, 1, <test name>, pass <number>,
<port ID> Failed: <register name> <prerequisite flags>
r=<pattern number> c=<result flags>
```

Probable Cause ASIC internal registers failed read-modify-write operation. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-INIT

Message

```
<switch number> Critical DIAG-INIT, 1, <test name>, <subtest name> pass <number>,
<port ID> <port speed> Failed to go active after initialization,
```

Probable Cause The port failed to go active in the loopback mode requested. Fibre cable, media, or 16-Port Card/ASIC failure is the probable cause.

Recommended Action Replace fibre cable, media, or 16-Port Card.

Severity Critical

DIAG-INTNIL

Message

```
<switch number> Critical DIAG-INTNIL, 1, <test name>, pass <number>,
<port ID> Failed to get CMI Error (interrupt),
```

Probable Cause The port failed to go active in the loopback mode requested. Fibre cable, media, or 16-Port Card/ASIC failure is the probable cause.

Recommended Action Replace fibre cable, media, or 16-Port Card.

Severity Critical

DIAG-INTNOTCLR

Message

```
<switch number> Critical DIAG-INTNOTCLR, 1, <test name>, pass <number>,
<port ID> Offs <ram offset> CMEM_ERR int bit could not be cleared,
```

Probable Cause The interrupt bit could not be cleared. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-LCMEM

Message

```
<switch number> Critical DIAG-LCMEM, 1, <test name>, pass <number>,
<port ID> Wr/Rd,
bNum <bad buffer> bLine <bad line> Offs <offset> error bits <bit mask>
```

Probable Cause The data read from the central memory location did not match data previously written into the same location. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-LCMEMTX

Message

```
<switch number> Critical DIAG-LCMEMTX, 1, <test name>, pass <number>,
<port ID pair> Tx Rd,
Wd <bad word> error bits <bit mask>
```

Probable Cause A central memory transmit path failure was detected. The first ASIC in <*port ID pair*> failed to read the second ASIC in <*port ID pair*> using the transmit path. A 16-Port Card failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-LCMTO

Message

```
<switch number> Critical DIAG-LCMTO, 1, <test name>, pass <number>,
<port ID> timeout,
MEM_RUNNING bit 0 Stuck High,
```

Probable Cause A central memory timeout was reported. The initiated data transfer did not complete within the timeout period. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-LESSN_STATUS_ERR

Message

```
<switch number> Critical DIAG-LESSN_STATUS_ERR, 1, <test name>, pass <number>,
<port ID> <port speed> Buffer Tags Status Error,
Exp: <expected status> Act: <actual status>
```

Probable Cause If the switch is in force failure mode, the less_n register has bad buffer tags error status. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-MBUF_STATE_ERR

Message

```
<switch number> Critical DIAG-MBUF_STATE_ERR, 1, <test name>, pass <number>,
<port ID> <speed> Minibuffer State Checking Error: <value>
```

Probable Cause An ASIC pair buffer state checking error was reported. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-MBUF_STATUS_ERR

Message

```
<switch number> Critical DIAG-MBUF_STATUS_ERR, 1, <test name>, pass <number>,
<port ID> <speed> Minibuffer State Checking Status Error,
Exp: <expected value> Act: <actual value>
```

Probable Cause If the switch is in force-failure mode, a bad minibuffer state checking status found.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-NOSEGMENT

Message

```
<switch number> Critical DIAG-NOSEGMENT, 1, <test name> <subtest name>,
<port ID> <speed> Failed to segment,
Please check cables
```

Probable Cause The specified port failed to go into loopback mode. An improper media or cable connection is the likely cause.

Recommended Action Reseat the specified media and cables and then re-execute test.

Severity Critical

DIAG-NUMTEST

Message

```
<switch number> Critical DIAG-NUMTEST, 1, <test name>, pass <number>,
<port ID> Failed filter test #<test number>: filter number sb: <expected number>
act: <actual number>
```

Probable Cause The wrong filter number changed states during the filter test. An improper media or cable connection is the likely cause.

Recommended Action Reseat the specified media and cables and then re-execute test.

Severity Critical

DIAG-PORTDIED

Message

```
<switch number> Critical DIAG-PORTDIED, 1, <test name> <subtest name>, pass <num-
ber>,
<port ID> <speed> Was Active but Went Inactive (Offline),
```

Probable Cause The specified port was in loopback mode and then went inactive. A fibre cable, media, or 16-Port Card/ASIC failure is the probable cause.

Recommended Action Replace the fibre cable, media, or 16-Port Card/ASIC.

Severity Critical

DIAG-PORTENABLE

Message

```
<switch number> Critical DIAG-PORTENABLE, 1, <test name> <subtest name>, pass <num-
ber>,
<port ID> <speed> Failed enable.
```

Probable Cause An ASIC driver detected an error when attempting to bring the port online. A fibre cable, media, or 16-Port Card/ASIC failure is the probable cause.

Recommended Action Replace the fibre cable, media, or 16-Port Card/ASIC.

Severity Critical

DIAG-PORTM2M

Message

```
<switch number> Critical DIAG-PORTM2M, 1, <test name>,
<port ID> Port M->M Connection not allowed,
```

Probable Cause The specified port is found to be connected to itself (self loopback). The Port M to Port M connection is not allowed by the test. An improper cable connection is the likely cause.

Recommended Action Reconnect port (M) to another port (N) and re-execute the test.

Severity Critical

DIAG-PORTSTOPPED

Message

```
<switch number> Critical DIAG-PORTSTOPPED, 1, <test name>, <number> nMegs,
<port ID> No Longer Transmitting, FTX Counter Stuck at <counter value>
```

Probable Cause The specified port is no longer transmitting frames. The Number Of Frames Transmitted counter is stuck at *<counter value>*. A fibre cable, media, or 16-Port Card/ASIC failure is the probable cause.

Recommended Action Replace the fibre cable, media, or 16-Port Card/ASIC.

Severity Critical

DIAG-PORTWRONG

Message

```
<switch number> Critical DIAG-PORTWRONG, 1, <test name>, pass <number>,
Frame Received at Wrong Port: is <port ID> sb <port ID>
```

Probable Cause A frame was erroneously received by port M instead of the intended port N. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-REGERR_UNRST

Message

```
<switch number> Critical DIAG-REGERR_UNRST, 1, <test name>,
<port ID> 3 retries,
lli_ctl <actual value> sb 90000, port_config <actual value> sb <expecteed value>
```

Probable Cause The specified port failed to reset despite three retries. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-RXQ_FRAME_ERR

Message

```
<switch number> Critical DIAG-RXQ_FRAME_ERR, 1, <test name>, pass <number>,
<port ID> <speed> RX Queuing Frame Tracking Number Error: <value>
```

Probable Cause A data error was detected in the receiving (RX) port queuing memory.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-RXQ_RAM_PERR

Message

```
<switch number> Critical DIAG-RXQ_RAM_PERR, 1, <test name>, pass <number>,
<port ID> <speed> RX Queuing RAM Parity Error: <value>
```

Probable Cause A parity error was detected in the receiving (RX) queuing RAM of the ASIC.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-SMI_STUCK

Message

```
<switch number> Warning DIAG-SMI_STUCK, 3, <port ID> stuck at SMI OP still running
```

Probable Cause The status indicator of the ASIC Special Memory Interface (SMI) is stuck on the specified port.

Recommended Action Replace the 16-Port Card.

Severity Warning

DIAG-STATS

Message

```
<switch number> Critical DIAG-STATS, 1, <test name>, pass <number>,
<port ID> <counter name> Counter Wrong, is <actual value> sb <expected value>
```

Probable Cause The ASIC internal error counters detected an error condition. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-STSALPACNT

Message

```
<switch number> Critical DIAG-STSALPACNT, 1, <test name>, pass <number>,
<port ID> Failed ALPA stat counter test:
alpa(<address>) status count exp:<expected value> act:<actual value>
```

Probable Cause An incorrect ALPA count found. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-STSINIT

Message

```
<switch number> Critical DIAG-STSINIT, 1, <test name>, pass <number>,
<port ID> Failed to Init: <reason>
```

Probable Cause One of two problems might have caused the reported error:

- The space for frames could not be allocated.
- The port failed to initialize.

The problem might be due to an ASIC failure.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-STSNULL

Message

```
<switch number> Critical DIAG-STSNULL, 1, <test name>, pass <number>,
<port ID>
ptRegs(pt): Null pointer detected
```

Probable Cause An error occurred while sending data or a bad port number was detected.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-TIMEOUT

Message

```
<switch number> Critical DIAG-TIMEOUT, 1, <test name>, pass <number>,
<port ID> Receive Error | Timeout
status rx: <value>, iu: <value>
```

Probable Cause The specified port failed to detect an interrupt within the timeout period. A fibre cable, media, or 16-Port Card/ASIC failure is the probable cause.

Recommended Action Replace the fibre cable, media, or 16-Port Card/ASIC.

Severity Critical

DIAG-WTEST

Message

```
<switch number> Critical DIAG-WTEST, 1, <test name>, pass <number>,
<port ID> Failed: <register name>
w=<write pattern> c=<control value>
```

Probable Cause The ASIC internal registers failed the write operation. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

DIAG-XMIT

Message

```
<switch number> Critical DIAG-WTEST, 1, <test name>, pass <number>,
<port ID> Cannot Transmit Frame: diagPtRegister returns <return value>
```

Probable Cause The specified port failed to transmit frame. An ASIC failure is the probable cause.

Recommended Action Replace the 16-Port Card.

Severity Critical

EM_System Error Messages

Chapter 8

The Environmental Monitor (EM) manages and monitors the various FRUs (Field Replaceable Units), including the Port Cards, CP Cards, blower assemblies, power supplies, and WWN (World Wide Name) Cards. EM controls the state of the FRUs during system startup, hot-plug sequences, and fault recover.

EM provides access to and monitors the sensor and status data from the FRUs and maintains the integrity of the system using the environmental and power policies. EM reflects system status by way of telnet commands, system LEDs, and status and alarm messages. EM also manages some component-related data.

EM-BLADE_ERROR

Message

```
<switch number> Warning EM-BLADE_ERROR, 3, Sysctrl reports Blade <slot number> in
slot <error code> error status
```

Probable Cause The system controller has encountered a blade with an unknown ID in the slot specified. The blade ID should be 1 for a CP blade, 2 for a port blade.

Recommended Action If the blade ID listed is not 1 for slots 5 or 6 (or not 2 for the other slots), then the FRU header for the blade is corrupted and the blade must be replaced.

Severity Warning

EM-CHASSIS_NULL

Message

```
<switch number> Critical EM-CHASSIS_NULL, 1, NULL Main Object: <function> failed
```

Probable Cause The root object data base pointer was found not to be set in the *function* specified. There are serious FabOS data problems on the switch.

Recommended Action Copy message and call Technical Support.

Severity Critical

EM-CP_ERR

Message

```
<switch number> Error EM-CP_ERR, 2, CP in slot <slot number> set to faulty because of
CP ERROR
```

Probable Cause On a dual CP system, the standby CP has been detected as faulty. The High-Availability feature will not be available.

Recommended Action

1. If the inactive CP was just rebooted, wait for the error to clear (run **slotShow** to determine if it has cleared).
2. If the standby CP continues to be faulty, or if it was not intentionally rebooted, check the error logs on the other CP (**errdump**) to determine the cause of the error state.
3. If the state persists, try reseating the CP.
4. If the above stated Recommended Actions fail to correct the error, replace the unit.

Severity Error

EM-EM_UPDATE

Message

```
<switch number> Error EM-EM_UPDATE, 2, EM failed to update FRU information for <fru
type> <unit number>
```

Probable Cause The environmental monitor was unable to update the time alive or OEM data to the SEEPROM on a FRU.

The <*fru type*> and <*unit number*> are as follows:

<*fru type*>	<*unit number*>
Slot	1 - 10 (for bladed switches) 0 (for non-bladed switches)
Power Supply	1 - 4
Fan	1 - 3
WWN	1, 2

Recommended Action If command **FRUInfoSet** was being run, try the command again; otherwise, the update will be automatically re-attempted. If it continues to fail, try reseating the FRU.

If the above Recommended Actions fail to correct the error, replace the unit.

Severity Error

EM-FAN_POLICY

Note: There are several different EM-FAN_POLICY error messages that can be generated. The general format is dispayed below (including message, probable cause, and recommended action). Each EM-FAN_POLICY message is also listed as reference.

Message

```
<switch number> <Severity Level> EM-FAN_POLICY, <severity number>, <error-related
information> <Recommended action or system action>
```

Probable Cause <error-related information> for the specific EM-FAN_POLICY error message.

Recommended Action <Recommended action or system action> for the specific EM-FAN_POLICY error message.

Severity <message-dependent>

Message: EM-FAN_POLICY (One fan FRU missing. Install fan FRU immediately).

Probable cause: One fan FRU has been removed.

Recommended Action: Install the missing fan FRU.

Severity: warning

Message: EM-FAN_POLICY (Two fan FRUs missing. Install fan FRUs immediately).

Probable cause: Two fan FRUs have been removed.

Recommended Action: Install the missing fan FRUs.

Severity: warning

Message: EM-FAN_POLICY (All fan FRUs missing. Install fan FRUs immediately).

Probable cause: All fan FRUs have been removed.

Recommended Action: Install the missing fan FRUs.

Severity: warning

Message: EM-FAN_POLICY (One or two fan(s) failed. Replace failed fan FRU(s) immediately).

Probable cause: The RPM on this/these fan(s) have fallen below the minimum threshold. This message is often preceded by a low RPM error message.

Recommended Action: Replace the failed fan FRU.

Severity: error

Message: EM-FAN_POLICY (Three fans failed. Replace failed fan FRUs immediately).

Probable cause: The RPM on these fans have fallen below the minimum threshold. This message is often preceded by a low RPM error message.

Recommended Action: Replace the failed fan FRUs.

Severity: error

Message: EM-FAN_POLICY (Four or five fans failed. Replace failed fan FRUs immediately).

Probable cause: The RPM on these fans have fallen below the minimum threshold. This message is often preceded by a low RPM error message.

Recommended Action: Replace the failed fan FRUs.

Severity: error

Message: EM-FAN_POLICY (All fans failed. Replace failed fan FRUs immediately).

Probable cause: The RPM on all fans have fallen below the minimum threshold. This message is often preceded by a low RPM error message.

Recommended Action: Replace the failed fan FRUs.

Severity: error

Message: EM-FAN_POLICY (High temperature (value). Exceeded environmental spec).

Probable cause: Temperature in the system has risen above the warning threshold.

Recommended Action: Make sure the area is well ventilated, and that all the fans are working properly. Be sure the room temperature is within reasonable range.

Severity: warning

Message: EM-FAN_POLICY (High temperature (value). Exceeding system temperature limit. System will shutdown within 2 minutes).

Probable cause: Temperature in the system has risen above the critical threshold.

Recommended Action: Make sure the area is well ventilated, and that all the fans are working properly. Be sure the room temperature is within reasonable range.

Severity: critical

Message: EM-FAN_POLICY (High temperature warning time expired. System preparing for shutdown...).

Probable cause: Temperature in the system has risen above the panic threshold.

Recommended Action: Too late for any action at this point. To help prevent future problem, make sure the area is well ventilated, and that all the fans are working properly. Be sure the room temperature is within reasonable range.

Severity: panic

Message: EM-FAN_POLICY (Using backup temperature sensor, service immediately).

Probable cause: Temperature readings from U90 is out of range.

Recommended Action: Replace the affected temperature sensor.

Severity: error

Message: EM-FAN_POLICY (All temperature sensors failed, service immediately).

Probable cause: Temperature readings from all temperature sensors are out of range.

Recommended Action: Replace all temperature sensors.

Severity: critical

EM-FAN_STATUS

Message

```
<switch number> Critical EM-FAN_STATUS, 1, System fan(s) status <fan fru>
```

Probable Cause A non-bladed system has overheated and is going to shut down. Before doing so all fan speeds are dumped.

Recommended Action If any fans are not present, or are not at high speed (approx. 6000 RPM) they should be replaced.

Severity Critical

EM-FAN_UNKNOWN

Message

```
<switch number> Critical EM-FAN_UNKNOWN, 1, Unknown fan <fan FRU> is being faulted,
try reseating it
```

Probable Cause A fan/blower's FRU header could not be read or is not valid; it will not be included in any power computations.

Recommended Action Try reseating the specified blower; if that fails, replace the unit.

Severity Critical

EM-FRU_ABSENT

Message

```
<switch number> Critical EM-FRU_ABSENT, 1, Failed to read slot <FRU number> FRU
header
```

Probable Cause The specified FRU header could not be read or is not valid; it will not be included in any computations.

Recommended Action Try reseating the FRU; if that fails, replace the unit.

Severity Critical

EM-FRU_FAULTY

Message

```
<switch number> Error EM-FRU_FAULTY, 2, %s %d set to faulty, rc=<return code>
```

Probable Cause The specified FRU has been marked as faulty for the specified reason. Other messages should be more explicit about the reason for the faulted FRU.

Recommended Action If the error reason stated in the other messages is correctable, correct it; if not, try reseating the FRU. If the fault persists, replace the FRU.

Severity Error

EM-FRUHEADER_NULL

Message

```
<switch number> Critical EM-FRUHEADER_NULL, 1, NULL FRU header: <specified function>
pObjHandle=0x%p
```

Probable Cause A FRU header pointer in the Object Data Base, which represents the components of the switch, was found to be null in the function specified. There are serious internal FabOS data problems on the switch.

Recommended Action If the fabric has failed, force a failover or system reboot; otherwise do so at the earliest time possible.

Severity Critical

EM-FRUINFO_NULL

Message

```
<switch number> Critical EM-FRUINFO_NULL, 1, NULL FRU info: <function> failed,
```

Probable Cause The FRU information data cannot be accessed in the function specified. There are serious internal FabOS data problems on the switch.

Recommended Action If the fabric has failed, force a failover or system reboot; otherwise do so at the earliest time possible.

Severity Critical

EM-FRU_INS

Message

```
<switch number> Info EM-FRU_INS, 4, %s #%d insertion detected.
```

Probable Cause A FRU of the specified type at the location specified by its number was detected as having been inserted into the chassis.

Recommended Action Verify that the unit is in service.

Severity Information

EM-FRU_REM

Message

```
<switch number> Info EM-FRU_REM, 4, %s #%d removal detected.
```

Probable Cause A FRU of the specified type at the location specified by its number was detected as having been removed from the chassis.

Recommended Action Verify that the unit is intended to be removed, and unless there is some reason not to, replace it as soon as possible.

Severity Information

EM-HIL_FAIL

Message

```
<switch number> Error EM-HIL_FAIL, 2, HIL Error: <function> failed, rc=<return code>
for <fru type unit>
```

Probable Cause Problems were encountered when the software attempted to write to the SEEPROM or the CPLD of the device specified in the error message. The return code is the error number. This is a serious hardware problem.

Recommended Action Try reseating the FRU, if possible. If this fails to correct the error, replace the specified unit.

Severity Error

EM-I2C_TIMEOUT

Message

```
<switch number> Error EM-I2C_TIMEOUT, 2, <fru_type unit> I2C timed out: state <cur-
rent state>
```

Probable Cause The i2c bus had problems from which the software didn't think it could recover.

Recommended Action This is often a transient error. If it recurs, try reseating the FRU. If it continues to fail, replace the unit.

Severity Error

EM-INIT_FAIL

Message

```
<switch number> Error EM-INIT_FAIL, 2, EM Init Error: <function> failed, err=<error
code>
```

Probable Cause An error was encountered in the function specified, when initializing the em daemon (EMD) and configuration data. There are serious internal Fabos configuration or h/w problems on the switch.

Recommended Action If the fabric has failed, force a failover or system reboot; otherwise do so at the earliest time possible.

Severity Error

EM-MAINOBJ_NULL

Message

```
<switch number> Critical EM-MAINOBJ_NULL, 1, NULL Main Object: %s failed
```

Probable Cause The root object data base pointer was found to not be set in the *function* specified. There are serious internal Fabos data problems on the switch.

Recommended Action If the fabric has failed, force a failover or system reboot; otherwise do so at the earliest time possible.

Severity Critical

EM-NOMEM

Message

```
<switch number> Critical EM-NOMEM, 1, Insufficient resources: <function> failed
```

Probable Cause Could not obtain memory needed to perform the function specified. There are serious FabOS data problems on the switch.

Recommended Action If the fabric has failed, force a failover or system reboot; otherwise do so at the earliest time possible.

Severity Critical

EM-OBJECT_UNKNOWN

Message

```
<switch number> Warning EM-OBJECT_UNKNOWN, 3, A unknown <fru_type unit> SCN was
received
```

Probable Cause A State Change Notification (SCN) was received by the em daemon (EMD); the state is not recognized. This could mean there are serious FabOS data problems on the switch.

Recommended Action If the message is isolated, monitor the error messages on the switch. If the error is repetitive, try reseating the FRU. If and the fabric has failed, force a failover or system reboot.

Severity Warning

EM-OBJ_NULL

Message

```
<switch number> Critical EM-OBJ_NULL, 1, NULL Object: <function> failed
```

Probable Cause An object pointer in the Object Data Base, which represents the components of the switch, was found to be null in the function specified. There are serious FabOS data problems on the switch.

Recommended Action If the fabric has failed, force a failover or system reboot; otherwise do so at the earliest time possible.

Severity Critical

EM-POWER_DOWN

Message

```
<switch number> Critical EM-POWER_DOWN, 1, <slot number> is shutting down
```

Probable Cause A blade in the specified slot is being shut down for environmental reasons; its temperature or voltage is out of range.

Recommended Action Additional messages will help determine what was out of range. Either replace the unit or correct the thermal problem.

Severity Critical

EM-POWER_FAIL

Message

```
<switch number> Critical EM-POWER_FAIL, 1, <fru_type unit> failed to power on
```

Probable Cause A hot-pluggable Field Replaceable Unit (FRU) failed to power on and will not be used. The type of FRU is specified in the message.

Recommended Action Try reseating the FRU. If this fails to correct the error, replace the unit.

Severity Critical

EM-POWER_MONITOR

Message

```
<switch number> Warning EM-POWER_MONITOR, 3, Slot <slot number> is being powered
<%s>
```

Probable Cause An automatic power adjustment is being made because of the (predicted) failure of a power supply or the insertion or removal of a port blade. If <new state> is “ON”, a port blade is being powered on because more power is available (a power supply was inserted, or a port blade was removed or powered down). If <new state> is “OFF”, a port blade has been powered down because a power supply has been faulted because it is indicating a predicted failure. If <new state> is “DOWN (not enough power)”, a newly inserted port blade was not powered on because there was not enough power available to power it up.

Recommended Action Two power supplies should be enough to power a fully loaded chassis. It is recommended that the system always be operated with four operating power supplies.

Severity Warning

EM-PS_UNKNOWN

Message

```
<switch number> Critical EM-PS_UNKNOWN, 1, Unknown power supply <unit number> is
being faulted, try reseating it
```

Probable Cause The FRU header of the specified power supply could not be read or is not valid. It will not be included in any power computations. The unit number possibilities are 1-4.

Recommended Action Try reseating the power supply. If this fails to correct the error, replace the unit.

Severity Critical

EM-SENSOR

Note: There are several different EM-SENSOR error messages that can be generated. The general format is dispayed below (including message, probable cause, and recommended action). Each EM-SENSOR message is also listed as reference.

Message

```
<switch number> Error EM-SENSOR, <severity number>, <error-related information>
<Recommended action or system action
```

Probable Cause <error-related information> for the specific EM-SENSOR error message.

Recommended Action <Recommended action or system action> for the specific EM-SENSOR error message.

Severity <message-dependent>

Message: EM-SENSOR (1 blower failed. Replace failed blower assembly immediately).

Probable cause: The RPM on this blower has fallen below the minimum threshold. This message is often preceded by a low RPM error message.

Recommended Action: Replace the failed blower assembly.

Severity: error

Message: EM-SENSOR (x blowers failed. Replace failed blower assemblies immediately).

Probable cause: The RPM on these blowers have fallen below the minimum threshold. This message is often preceded by a low RPM error message.

Recommended Action: Replace the failed blower assemblies.

Severity: error

Message: EM-SENSOR (Blower x, high RPM (value)).

Probable cause: The RPM on this blower has risen above the maximum threshold. Please note that high RPM does not cause blower to be faulty.

Recommended Action: If high RPM prolong over a period of time, replace the blower assembly.

Severity: warning

Message: EM-SENSOR (Blower x faulted, low RPM (value)).

Probable cause: The RPM on this blower has fallen below the minimum threshold.

Recommended Action: Replace the failed blower assembly.

Severity: error

Message: EM-SENSOR (Slot x, unit shutting down).

Probable cause: Usually this message follows the high temperature warning message. The temperature of the blade in this slot has risen above the maximum threshold for at least two minutes. The blade will be shutdown to prevent further damage.

Recommended Action: Make sure the area is well ventilated, and that all the blowers are working properly. Be sure the room temperature is within reasonable range. Replace blade if necessary.

Severity: panic

Message: EM-SENSOR (Slot x, high temp (value). Unit will be shutdown in 2 minutes if temp remains high).

Probable cause: Temperature of this blade has risen above the critical threshold. This usually follows a high temperature warning message.

Recommended Action: Make sure the area is well ventilated, and that all the blowers are working properly. Be sure the room temperature is within reasonable range.

Severity: critical

Message: EM-SENSOR (Slot x, high temp (value)).

Probable cause: Temperature of this blade has risen above the warning threshold.

Recommended Action: Make sure the area is well ventilated, and that all the blowers are working properly. Be sure the room temperature is within reasonable range.

Severity: warning

Message: EM-SENSOR (Blower x faulted, 48V (value) is above threshold).

Probable cause: The 48V line of the blower is above threshold.

Recommended Action: Check the power supplies along with the faulty blower. Replace them as necessary.

Severity: error

Message: EM-SENSOR (Blower x faulted, 48V (value) is below threshold).

Probable cause: The 48V line of the blower is below threshold.

Recommended Action: Check the power supplies along with the faulty blower. Replace them as necessary.

Severity: error

Message: EM-SENSOR (Blower x faulted, 53V (value) is above threshold).

Probable cause: The 53V line of the blower is above threshold.

Recommended Action: Check the power supplies along with the faulty blower. Replace them as necessary.

Severity: error

Message: EM-SENSOR (Blower x faulted, 53V (value) is below threshold).

Probable cause: The 53V line of the blower is below threshold.

Recommended Action: Check the power supplies along with the faulty blower. Replace them as necessary.

Severity: error

Message: EM-SENSOR (Fan x faulted, low RPM (value)).

Probable cause: The RPM on this fan has fallen below the minimum threshold.

Recommended Action: Replace the failed fan FRU.

Severity: error

Message: EM-SENSOR (Fan x, high RPM (value)).

Probable cause: The RPM on this fan has risen above the maximum threshold. Please note that high RPM does not cause fan to be faulty.

Recommended Action: If high RPM prolong over a period of time, replace the fan FRU.

Severity: warning

Message: EM-SENSOR (PS x faulted, 1.8V (value) below threshold. System preparing for reset...)

Probable cause: The 1.8V line is below panic threshold.

Recommended Action: Replace the affected power supply.

Severity: panic

Message: EM-SENSOR (PS x faulted, 2.5V (value) below threshold. System preparing for reset...)

Probable cause: The 2.5V line is below panic threshold.

Recommended Action: Replace the affected power supply.

Severity: panic

Message: EM-SENSOR (PS x faulted, 3.3V (value) below threshold. System preparing for reset...)

Probable cause: The 3.3V line is below panic threshold.

Recommended Action: Replace the affected power supply.

Severity: panic

EM-SENSOR_EXC

Message

```
<switch number> Warning EM-SENSOR_EXC, 3, %s $d exceeded max number of allowed sen-
sors
```

Probable Cause The indicated FRU has an incorrect number of sensors in its FRU header derived information. This could mean that the FRU header was corrupted or read incorrectly, or corrupted in the Object Data Base which contains information about all FRUs.

Recommended Action Try reseating the FRU, if the condition persists, replace the unit.

Severity Warning

EM-SENSOR_MAX

Message

```
<switch number> Critical EM-SENSOR_MAX, 1, <slot number> has faulted.\nSensor(s)
above maximum limits
```

Probable Cause The blade in the specified slot is being shut down for environmental reasons; its temperature or voltage is too high.

Recommended Action Additional messages will be generated; use the other messages to determine which unit had a high temperature. Either replace the unit or correct the thermal problem

Severity Critical

EM-SENSOR_MIN

Message

```
<switch number> Critical EM-SENSOR_MIN, 1, <slot number> has faulted.\nSensor(s)
below minimum limits
```

Probable Cause Sensor(s) indicate below minimum limits. The blade in the specified slot is being shut down for environmental reasons; the voltage is too low.

Recommended Action Additional messages will be generated; use the other messages to determine which voltage was out of range and replace the unit.

Severity Critical

EM-SENSOR_NULL

Message

```
<switch number> Critical EM-SENSOR_NULL, 1, NULL pointer: <function> failed
```

Probable Cause The sensor data pointer for a Field Replaceable Unit (FRU) was not set in the Object Data Base, which represents the components of the switch. The failed function area is specified in the error message. There are serious internal FabOS data problems on the switch.

Recommended Action If the fabric has failed, force a failover or system reboot at the earliest time possible.

Severity Critical

EM-SENSOR_RESET

Message

```
<switch number> Critical EM-SENSOR_RESET, 1, %s %d is being reset\nSensor(s) has
exceeded max limits
```

Probable Cause A voltage on non-bladed switch has dropped below specified limits. Additional messages will identify the exact nature of the problem. The switch will be reset.

Recommended Action See the additional SENSOR message(s) for suggested action.

Severity Critical

EM-SENSORS

Message

```
<switch number> Warning EM-SENSORS, 3, Sensor values for %s %d\n%s
```

Probable Cause This message is usually associated with another more severe message. All significant sensors for the FRU are displayed; each contains a header. This message can also refer to a single out of range sensor.

Recommended Action If the message is isolated, monitor the error messages on the switch. If the message is associated with other messages, follow the recommended action for that message.

Severity Warning

EM-SLOT_INCOMPAT

Message

```
<switch number> Critical EM-SLOT_INCOMPAT, 1, Incompatible unit in slot <slot num-
ber> is being faulted
```

Probable Cause A blade was that was inserted in the specified slot is a type which is not compatible with the switch software. The blade will not be used.

Recommended Action Try reseating the blade. If this fails to correct the error, replace the unit.

Severity Critical

EM-SLOT_NOT_SEATED

Message

```
<switch number> Error EM-SLOT_NOT_SEATED, 2, Slot <slot number> ejector not closed
```

Probable Cause The environmental monitor (EM) has found a switch blade that is inserted, but at least one ejector switch is not closed. The blade in the specified slot is treated as not inserted.

Recommended Action Close the ejector switch if the blade was intended to be used.

Severity Error

EM-SLOT_PWR_DOWN

Message

```
<switch number> Critical EM-SLOT_PWR_DOWN, 1, Slot <slot number> powered down unex-
pectedly
```

Probable Cause The environmental monitor (EM) received an unexpected power down notification from the specified switch blade.

Recommended Action Try reseating the blade. If the blade fails to power up, or if the blade powers down again, replace the blade.

Severity Critical

EM-SLOT_PWR_DOWN_FLT

Message

```
<switch number> Critical EM-SLOT_PWR_DOWN_FLT, 1, Received unexpected power down for
slot <slot number> But slot <slot number> still has power
```

Probable Cause The environmental monitor (EM) received an unexpected power down notification from the specified switch blade. However, the specified slot still appears to be powered up after four seconds.

Recommended Action Try reseating the blade. If the blade fails to power up, or if the blade powers down again, replace the blade.

Severity Critical

EM-SLOT_PWR_DOWN_UNK

Message

```
<switch number> Critical EM-SLOT_PWR_DOWN_UNK, 1, Can not determine if slot <slot
number> has powered down
```

Probable Cause The environmental monitor (EM) received an unexpected power down notification from the switch blade specified. But, after 4 seconds it cannot be determined if it has powered down or not.

Recommended Action Try reseating the blade. If the blade fails to power up, or if the blade powers down again, replace the blade.

Severity Critical

EM-SLOT_UNKNOWN

Message

```
<switch number> Critical EM-SLOT_UNKNOWN, 1, Unknown unit in slot <slot number> is
being faulted
```

Probable Cause A switch blade was inserted/present at bootup but the FRU header could not be read or is not valid. It will not be used.

Recommended Action Try reseating the blade. If this fails to correct the error, replace the unit.

Severity Critical

EM-SWITCH_DOWN

Message

```
<switch number> Warning EM-SWITCH_DOWN, 3, Can't power on slot <slot number>, its
switch is shutdown
```

Probable Cause The specified slot cannot be powered on because the associated logical switch is shutdown.

Recommended Action Run switch start for the associated switch.

Severity Warning

EM-SWITCH_FAN_FAIL

Message

```
<switch number> Panic EM-SWITCH_FAN_FAIL, 0, Shutting down switch
```

Probable Cause A non-bladed switch is shutting down due to over-heating.

Recommended Action Determine the reason(s) for the over-heating and correct.

Severity Panic

EM-SWITCH_FAULTY

Message

```
<switch number> Error EM-SWITCH_FAULTY, 2, Switch set to faulty, rc=<return code>
```

Probable Cause The specified switch blade has been marked as faulty for the specified reason. Additional messages should be more explicit about the reason for the faulted switch.

Recommended Action If the reason specified in the other messages is correctable, correct it. If not, copy the message and contact Technical Support.

Severity Error

EM-SWITCH_SENSOR_EXC

Message

```
<switch number> Warning EM-SWITCH_SENSOR_EXC, 3, SWITCH exceeded max number of
allowed sensors
```

Probable Cause The switch exceeded the maximum number of sensors allowed.

Recommended Action Reduce the number of sensors.

Severity Warning

EM-SWITCH_TRAN_FAIL

Message

```
<switch number> Critical EM-SWITCH_TRAN_FAIL, 1, Switch failed <function> transition
```

Probable Cause A switch blade failed to transition from one state to another. It will be faulted. The specific failed function is displayed in the message. There are serious internal Fabric OS configuration or hardware problems on the switch.

Recommended Action Force a system reboot. If these actions fail, copy the message and contact Technical Support.

Severity Critical

EM-SWITCH_UNKNOWN

Message

```
<switch number> Critical EM-SWITCH_UNKNOWN, 1, Unknown switch is being faulted
```

Probable Cause Corrupted main FRU header for non-bladed systems (see SLOT_UNKNOWN).

Recommended Action Try recycling the power. If that does not help, return the unit to the factory.

Severity Critical

EM-SYSMOD_FAIL

Message

```
<switch number> Error EM-SYSMOD_FAIL, 2, System Module Error: %s failed, err=<error
code>
```

Probable Cause An error was encountered in the specified function when initializing the em daemon (emd) and configuration data. There are serious internal FabOS configuration or hardware problems on the switch.

Recommended Action If the fabric has failed, force a failover or system reboot at the earliest time possible.

Severity Error

EM-TRAN_FAIL

Message

```
<switch number> Critical EM-TRAN_FAIL, 1, %s %d failed <function> transition
```

Probable Cause A switch blade failed to transition from one state to another. It will be faulted. The specific failed function is displayed in the message. There are serious internal FabOS configuration or hardware problems on the switch.

Recommended Action Try reseating the blade. If this fails to correct the error, and the fabric has failed, force a failover or system reboot at the earliest time possible. If these actions fail, replace the unit.

Severity Critical

EM-WWN_ABSENT

Message

```
<switch number> Error EM-WWN_ABSENT, 2, WWN <unit number> not present
```

Probable Cause The specified WWN Field Replaceable Unit (FRU) does not seem to be present on the switch. The default WWN, IP addresses, and more, will be used for the switch.

Recommended Action Try rebooting the switch; if this fails to correct the error, try power cycling the chassis. If this fails, replace the unit.

Severity Error

EM-WWN_UNKNOWN

Message

```
<switch number> Critical EM-WWN_UNKNOWN, 1, Unknown WWN <unit number> is being
faulted
```

Probable Cause The WWN card cannot be accessed or is not valid. Default values will be used of all it’s data. The default WWN, IP addresses, and more, will be used for the switch.

Recommended Action Try rebooting the switch; if this fails to correct the error, try power cycling the chassis. If this fails, replace the unit.

Severity Critical

ERRLOG_System Error Messages

Chapter 9

The Error Log (ERRLOG) subsystem collects information about system health as well as warning or information conditions from various subsystems. The Error Log subsystem then displays the collected information in text format on the system console and stores required error messages in non-volatile storage so the information can be retrieved and displayed later.

ERRLOG-LOGCLRD

Message

```
<switch number> Info ERRLOG-LOGCLRD, 4, Error log cleared
```

Probable Cause Informational message stating that the error log was cleared using the telnet command **errclear**.

Recommended Action No action required. Information only.

Severity Information

ERRLOG-NV_DISABLE

Message

```
<switch number> Info ERRLOG-NV_DISABLE, 4, Persistent error log will be disabled
soon...
```

Probable Cause An informational message stating that the Persistent (Non-Volatile) Error Log will be disabled by the telnet command **errnvlogdisable** issued by the user.

Recommended Action No action required. Information only.

Severity Information

ERRLOG-NV_LOG_CLRD

Message

```
<switch number> Info ERRLOG-NV_LOG_CLRD, 4, Persistent error log cleared
```

Probable Cause An informational message stating that the Persistent (Non-volatile) Error Log has been cleared with the **errClear -p** command.

Recommended Action No action required. Information only.

Severity Information

ERRLOG-NV_LOG_RESIZE

Message

```
<switch number> Info ERRLOG-NV_LOG_RESIZE, 4, Persistent error log is resized to
<number of errors in log> entries
```

Probable Cause An informational message stating that the number of errors in the Persistent (Non-volatile) Error Log has been changed and can now store <*number of errors in log*> entries. The default size is 1024; it can be re-sized to any value between 1024 and 2068.

Recommended Action No action required. Information only.

Severity Information

ERRLOG-SET_MSG_SAVE_LVL

Message

```
<switch number> Info ERRLOG-SET_MSG_SAVE_LVL, 4, Error Log message save level is set
to <error level>
```

Probable Cause

An informational message stating the level of error that is set to be saved in the Persistent (Non-volatile) Error Log. For example, if the level is set to 3, then 0-, 1-, 2-, and 3-level error messages will be stored.

The maximum number of persistent messages is 256; therefore, you should set the number to record lower (or more critical errors) such as 0 and 1. However, if the log fills up, more critical messages will always take precedence over less critical messages in the log.

The levels of error messages are:

0 Panic
1 Critical
2 Error
3 Warning
4 Informational
5 Debug

Recommended Action

No action required. Information only.

Severity

Information

FABRIC_System Error Messages

Chapter 10

FABRIC refers to a network of fibre channel switches. The FABRIC error messages come from the fabric daemon. Fabricd implements the Fibre Channel Switch Fabric (FCSF) standard. Fabricd follows the FCSF standard for the fabric initialization process such as determining the E_ports, assigning unique domain ID to switches, creating a spanning tree, throttling the trunking process, and distributing the domain and alias list to all switches in the fabric.

FABRIC-ASYNC

Message

```
<switch number> Warning FABRIC-ASYNC, 3, port: <port number>, req iu: <IU sent>,
state: <command sent>, resp iu: <response IU>, state <response IU state> "unexpected
resp async state"
```

Probable Cause The Information Unit response was invalid for the specified command sent.

Recommended Action Copy error message and call Technical Support.

Severity Warning

FABRIC-ASYNC_COMMAND

Message

```
<switch number> Warning FABRIC-ASYNC_COMMAND, 3, Command: port <port number>: status
<reason for failure> (Reason for failure) xid = <exchange ID of command>
```

Probable Cause The application failed to send an async command for the specified port. The message provides additional details regarding reason for failure and exchange ID for the command.

Recommended Action Run the **supportshow** command and call Technical Support.

Severity Warning

FABRIC-BADILS

Message

```
<switch number> Warning FABRIC-BADILS, 3, port <port number>: ILS <command> bad size
<payload size>, wanted <expected payload size>
```

Probable Cause A Switch Fabric Internal Link Service (ILS) IU of invalid size has been received.

Recommended Action Run **supportshow** and contact Technical Support.

Severity Warning

FABRIC-FAB_BF

Message

```
<switch number> Info FABRIC-FAB_BF, 4, <reconfiguration description>
```

Probable Cause The fabric reconfiguration during “build fabric” transitions to the “F0: Non-disruptive state” (F0 state details provided in the Fibre Channel Switch Fabric specification).

Recommended Action No action required.

Severity Information

FABRIC-FAB_EFP_ERROR

Message

```
<switch number> Warning FABRIC-FAB_EFP_ERROR, 3, <error description>
```

Probable Cause Errors were reported during the Exchange Fabric Parameter state; cannot allocate domain list due to a bad EFP type.

Recommended Action Run **supportshow** and contact Technical Support.

Severity Warning

FABRIC-FAB_FWD_ERROR

Message

```
<switch number> Warning FABRIC-FAB_FWD_ERROR, 3, <error description>
```

Probable Cause Errors occurred while forwarding RDI (Request Domain ID) commands to the upstream link; cannot clean up the IU. Error description provides further details.

Recommended Action Run **supportshow** and contact Technical Support.

Severity Warning

FABRIC-FAB_IU_FREE

Message

```
<switch number> Warning FABRIC-FAB_IU_FREE, 3, IU free error, caller: <function
attempting to de-allocate IU>
```

Probable Cause A failure occurred when freeing or de-allocating an IU.

Recommended Action Run **supportshow** and contact Technical Support.

Severity Warning

FABRIC-FAB_ME_ERROR

Message

```
<switch number> Error FABRIC-FAB_ME_ERROR, 2, <error description>
```

Probable Cause Unable to inform FSSME (Fabric OS State Synchronization Management Module) that the fabric is stable or unstable.

Recommended Action Run **supportshow** and **hadump**; then contact Technical Support.

Severity Error

FABRIC-FAB_NODE_FREE

Message

```
<switch number> Warning FABRIC-FAB_NODE_FREE, 3, Node free error, caller: <error
description>
```

Probable Cause This message occurs when the application tries to free or de-allocate memory space that has already been de-allocated.

Recommended Action Run **supportshow** and contact Technical Support.

Severity Warning

FABRIC-FAB_PERSIST_DID_FAIL

Message

```
<switch number> Error FABRIC-FAB_PERSIST_DID_FAIL, 2, Port <port number> Disabled:
Persistent Domain ID <Domain ID> could not be obtained.
Principal Assigned Domain ID = <Domain ID>
```

Probable Cause The specified port received an RDI (Request Domain ID) Accept message containing the Principal Assigned Domain ID that is different from the Persistent Domain ID. Therefore, the port is disabled.

Recommended Action No action required.

Severity Error

FABRIC-FAB_PERSIST_ISOLATE

Message

```
<switch number> Error FABRIC-FAB_PERSIST_ISOLATE, 2, Persistent DID max retry
exceeded: All E-Ports will be disabled.
Switch is isolated.
```

Probable Cause The application exceeded RDI (Request Domain ID) requests for the Persistent Domain ID. All E_ports will be disabled, thereby isolating the specified switch from the fabric.

Recommended Action Verify the Persistent Domain ID is unique in the fabric and then re-enable the E_ports. If error persists, run **supportshow** and contact Technical Support.

Severity Error

FABRIC-FAB_PSS_PRINCIPAL_FAIL

Message

```
<switch number> Warning FABRIC-FAB_PSS_PRINCIPAL_FAIL, 3, PSS principal failed (rea-
son for failure>: <WWN of new principal switch>)
```

Probable Cause The message will only display if the switch is configured to be the principal switch when using the **fabricprincipal** command. The message notifies the user that the switch failed to become the principal switch because the switch either joined an existing fabric and bypassed the F0 State, or the switch lost to another switch that is also configured to be the principal switch and has a lower WWN.

Recommended Action No action required.

Severity Warning

FABRIC-FAB_RDI_ERROR

Message

```
<switch number> Warning FABRIC-FAB_RDI_ERROR, 3, <error description>
```

Probable Cause Errors occurred during the Request Domain ID state; IU cannot be allocated/sent.

Recommended Action Run **supportshow** and contact Technical Support.

Severity Warning

FABRIC-FAB_TYPE_ERROR

Message

```
<switch number> Warning FABRIC-FAB_TYPE_ERROR, 3, <function stream>: no such type,
<invalid type>
```

Probable Cause The fabric is not in the appropriate state for the specified process.

Recommended Action Run **supportshow** and contact Technical Support.

Severity Warning

FABRIC-FAB_VAL_DOM

Message

```
<switch number> Info FABRIC-FAB_VAL_DOM, 4, <valid domain>
```

Probable Cause The fabric Domain ID is found to be valid.

Recommended Action No action required.

Severity Information

FABRIC-NO_ALIASID

Message

```
<switch number> Warning FABRIC-NO_ALIASID, 3, fabGaid: no free multicast alias IDs
```

Probable Cause The fabric does not have available multicast alias IDs to assign to the alias server.

Recommended Action Verify Alias IDs using the **fabricshow** command on the principal switch.

Severity Warning

FABRIC-SEGMENTED

Message

```
<switch number> Warning FABRIC-SEGMENTED, 3, port <port number>, <description of
segmentation>
```

Probable Cause Port is segmented from neighboring switch. Error message provides additional description and information regarding segmentation.

Recommended Action Verify that specified port is segmented using the command **switchshow**. Using information provided in *<description of segmentation>*, resolve the reason for segmentation.

Severity Warning

FCMISC_System Error Messages

Chapter 11

Fibre Channel Physical Layer is used to send Fibre Channel traffic to and from the switch.

FCMISC-OUT_OF_MEMORY

Message

```
<switch number> Critical FCMISC-OUT_OF_MEMORY, 1, <function>:<failed function call>
out of memory condition
```

Probable Cause

The switch is low on memory and failed to allocate new memory for an Information Unit.

The <*function*> will be “misc_tx_lb.”

The < *failed function call*> will be “iu_alloc failed.” This function call is for memory allocation for information units.

Recommended Action

A non-bladed switch will automatically reboot. For a bladed switch, the active CP card will automatically failover, and the standby CP will become the active CP. Contact Technical Support.

Severity

Critical

FCPD_System Error Messages

Chapter 12

The Fibre Channel Protocol (FCP) application is responsible for probing the devices attached to the loop port. Probing is a process the switch uses to find the devices attached to the loop ports and to update the Name Server with the information.

FCPD-PROBING_FAIL

Message

```
<switch number> Warning FCPD-PROBING_FAIL, 3, Probing failed on <L-port or F-port>
<port number> [ALPA <alpa address>]
```

Probable Cause FCP switch probed devices on loop port, and probing failed on the either the L-Port/ALPA address or the F-port.

Ports will be 0-63 for bladed system, terminator will be ports numbers 0-15. For alpa arbitrated loop physical address, range is any value 00 - FF.

Recommended Action This can happen when the firmware on the device controller on the specified port has a defect. Check with the device vendor for a firmware upgrade containing a defect fix.

Severity Warning

FCPD-PORT_BAD_RCTL

Message

```
<switch number> Warning FCPD-PORT_BAD_RCTL, 3, PORT <port number>, bad R_CTL for fcp
probing: <R_CTL value>
```

Probable Cause The response frame received on the specified port for a probing inquiry request contains an invalid value in the routing control field.

Recommended Action This can only happen if the firmware on the device controller on the specified port has a defect. Check with the device vendor for a firmware upgrade containing a defect fix. Contact Technical Support.

Severity Warning

FCPH_System Error Messages

Chapter 13

Fibre Channel Physical Layer is used to send Fibre Channel traffic to and from the switch.

FCPH-OUT_OF_MEMORY

Message

```
<switch number> Critical FCPH-OUT_OF_MEMORY, 1, <function>:<failed function call>
out of memory condition
```

Probable Cause

The switch is low on memory and failed to allocate new memory for a Fibre Channel Driver instance.

The <*function*> will be “fc_create.” This function creates a Fibre Channel driver instance.

The < *failed function call*> will be “kmalloc_wrapper failed.” This function call is for kernel memory allocation.

Recommended Action

A non-bladed switch will automatically reboot. For a bladed switch, the active CP card will automatically failover, and the standby CP will become the active CP. Contact Technical Support.

Severity

Critical

FLOOD_System Error Messages

Chapter 14

FLOOD is a part of the FSPF (Fabric Shortest Path First) protocol that handles synchronization of the Link State Database (LSDB) and propagation of the Link State Records (LSR).

FLOOD-INVLSR

Message

```
<switch number> Warning FLOOD-INVLSR, 3, Unknown LSR type: port <port number>, type
<LSR header type>
```

Probable Cause The Link State Record (LSR) type is unknown. The following two LSR header types are the only known types: 1 - Unicast and 3 - Multicast.

Recommended Action The record will be discarded. No user action is required.

Severity Warning

FLOOD-LINKCNT

Message

```
<switch number> Warning FLOOD-LINKCNT, 3, Link count exceeded in received LSR, value
= <link count number>
```

Probable Cause The acceptable link count received was exceeded in the Link State Record.

Recommended Action The record will be discarded. No user action is required.

Severity Warning

FSPF_System Error Messages

Chapter 15

Fabric Shortest Path First (FSPF) is a link state routing protocol that is used to figure out how frames should be routed. These error messages cover protocol errors.

FSPF-INPORT

Message

```
<switch number> Error FSPF-INPORT, 2, Input Port <port number> out of range
```

Probable Cause The specified input port number is out of range. The specified input port number does not exist on the switch.

Recommended Action Frame will be discarded and no user action is required.

Severity Error

FSPF-NBRCHANGE

Message

```
<switch number> Info FSPF-NBRCHANGE, 4, Wrong neighbor ID <port number> in Hello
```

Probable Cause Wrong Domain ID from neighbor (adjacent) switch in Hello message from specified port. This might happen when a Domain ID for a switch has been changed.

Recommended Action No user action required.

Severity Information

FSPF-REMDOMAIN

Message

```
<switch number> Error FSPF-REMDOMAIN, 2, Remote Domain ID <domain number> out of
range, input port = <port number>
```

Probable Cause The specified remote Domain ID is out of range.

Recommended Action Frame will be discarded and no user action is required.

Severity Error

FSPF-SECTION

Message

```
<switch number> Error FSPF-SECTION, 2, Wrong Section Id <section number>, should be
0, input port = <port number>
```

Probable Cause An incorrect section ID was reported from the specified input port. Brocade only supports Section ID 0 (zero).

Recommended Action Verify the reported Section ID is 0 (zero).

Severity Error

FSPF-VERSION

Message

```
<switch number> Error FSPF-VERSION, 2, FSPF Version <FSFP version> not supported,
input port = <port number>
```

Probable Cause The FSPF version is not supported on the specified input port.

Recommended Action Update the FSPF version by loading the correct version of firmware.

Severity Error

FSS_System Error Messages

Chapter 16

The Fabric OS State Synchronization framework (FSS) provides facilities by which the active control processor (CP) can synchronize with the standby CP, enabling the standby CP to take control of the switch non-disruptively during failures and software upgrades. These facilities include version negotiation, state information transfer, and internal synchronization functions enabling the transition from standby to active operation.

FSS is defined as a component and a service. A component is a module in the Fab OS implementing a related set of functionality. A service is a collection of components grouped together to achieve a modular software architecture.

FSS-NOMEMORY

Message

```
<switch number> Warning FSS-NOMEMORY, 3, Memory shortage
```

Probable Cause System ran out of memory.

Recommended Action Call Tech Support.

Severity Warning

FSS-NOTXBEGIN

Message

```
<switch number> Warning FSS-NOTXBEGIN, 3, <component name>: Missing first TX update
<transaction id>
```

Probable Cause FSS dropped this transaction state update because the transaction flag was not set up.

Recommended Action Run the command **hasyncstart** on the active CP or call Tech Support.

Severity Warning

FSS-TXTOOMANY

Message

```
<switch number> Warning FSS-TXTOOMANY, 3, <component name>: Too many concurrent TX
<transaction id>
```

Probable Cause The specified component sent too many transactions at the same time.

Recommended Action System will continue to function normally. If you have any questions, call Technical Support.

Severity Warning

FSSME_System Error Messages

Chapter 17

FSSME is a management module for FSS (Fabric OS State Synchronization framework). FSSME controls FSS. FSSME is defined as a component and a service. A component is a module in Fabric OS implementing a related set of funtionality. A service is a collection of components grouped together to achieve a modular software architecture.

FSSME-HA_IN_SYNC

Message

```
<switch number> Info FSSME-HA_IN_SYNC, 4, HA State is in sync!
```

Probable Cause This message is logged when the HA state for Fabric OS is in synchronization with the peer CP's HA state. If the standby CP is healthy, then the failover would be non-disruptive. (For details on non-disruptive failover, see the *Fabric OS Command Reference v. 4.1*.)

Recommended Action No action required.

Severity Information

FSSME-HA_OUT_OF_SYNC

Message

```
<switch number> Info FSSME-HA_OUT_OF_SYNC, 4, HA State out of sync!
```

Probable Cause This message is logged when the HA state for FabOS is out of synchronization with the peer CP's HA state. If the active CP were to failover when the HA state is out of sync, failover would be disruptive.

Recommended Action If this message was logged as a result of a user-initiated action (such as issuing **switchreboot** or **hareboot** commands), then no action is required.

Otherwise, issue the **hasyncstart** command on the active CP and try resynchronizing the HA state. If the HA state does not become synchronized, then run the **hadump** command and contact Technical Support.

Severity Information

FSSME-IMAGE_MISMATCH

Message

```
<switch number> Critical FSSME-IMAGE_MISMATCH, 1, One or more components on the
standby and active are incompatible
```

Probable Cause This message is logged when there is a version mismatch between the active and standby peer components. This message provides details for technical assessment.

Recommended Action Run the **hadump** command and contact Technical Support.

Severity Critical

FSSME-LOCAL_COMP_SYNCFAIL

Message

```
<switch number> Critical FSSME-LOCAL_COMP_SYNCFAIL, 1, Local Component failed to
sync <service name>:<service instance>
```

Probable Cause This message is logged when the local component failed to synchronize; it means that non-disruptive HA failover is not possible. This message provides details for technical assessment.

Recommended Action Issue **hasyncstart** command on the active CP. If this message appears again, run the **hadump** command and contact Technical Support.

Severity Critical

FSSME-PEER_COMP_NOT_IN_OPR

Message

```
<switch number> Critical FSSME-PEER_COMP_NOT_IN_OPR, 1, Peer component not in opera-
tion: <service name>:<service instance>
```

Probable Cause This message is logged when the peer component is not in operation; it means that non-disruptive HA failover is not possible. This message provides details for technical assessment.

Recommended Action Contact Technical Support.

Severity Critical

FSSME-PEER_COMP_SYNCFAIL

Message

```
<switch number> Info FSSME-PEER_COMP_SYNCFAIL, 4, Peer Component failed to sync
<service name:<service instance>
```

Probable Cause This message is logged when the peer service failed to synchronize; it means that non-disruptive HA failover is not possible. This message provides details for technical assessment.

Recommended Action Issue **hasyncstart** command on the active CP. If this message appears again, run the **hadump** command and contact Technical Support.

Severity Information

FSSME-PEER_SVC_NOT_IN_OPR

Message

```
<switch number> Info FSSME-PEER_SVC_NOT_IN_OPR, 4, Peer service not in operation:
<service name>:<service instance>
```

Probable Cause This message is logged when the peer service is not in operation. When a CP is rebooted, the peer CP will print this message. This message is for technical assessment.

Recommended Action If this message is logged as a result of user action (such as **reboot** the Peer CP), then no action is required.

If this message is logged without any intentional actions as mentioned above, run the **hadump** command and contact Technical Support.

Severity Information

HAM_System Error Messages

Chapter 18

HAM is a user space daemon responsible for High Availability (HA) Management.

HAM-ERROR

Message

```
<switch number> Critical HAM-ERROR, 4, <error message>
```

Probable Cause This message is logged when HAM encounters a critical error.

Recommended Action Run the **hadump** command and capture output; then call Technical Support.

Severity Critical

HAM-HMON

Message

```
<switch number> Information HAM-HMON, 4, Standby CP is Healthy
```

Probable Cause All of the standby CP devices monitored by Health Monitor report no error.

Recommended Action No action required.

Severity Information

HAM-HMON_FAULT

Message

```
<switch number> Critical HAM-HMON_FAULT, 1, Standby CP is not healthy, device
<device name> status BAD severity = <severity>
```

Probable Cause

A standby CP device error is reported by the HAM Health Monitor with specific device and severity level. The severity level can be one of the following: critical, major, or minor.

The active CP will continue to function normally, but because the standby CP is not healthy, non-disruptive failover is not possible.

Recommended Action

Replace standby CP. Call Technical Support if necessary.

Severity

Critical

HAM-REBOOT_REASON

Message

```
<switch number> Info HAM-REBOOT_REASON, 4, Switch reboot, reason: unknown
```

Probable Cause

This message is logged when HAM does not have any knowledge about the reason for switch reboot.

Recommended Action

No action required.

Severity

Information

HAMKERNEL_System Error Messages

Chapter 19

This is the kernel module for HAM, the High Availability Management daemon.

HAMKERNEL-ERROR

Message

```
<switch number> Info HAMKERNEL-ERROR, 4, <error information>
```

Probable Cause This message is logged when a system error has occurred. The *<error information>* indicates where the problem is and is used for troubleshooting.

Recommended Action Copy the error message, run the **haDump** command, and contact Technical Support with the information.

For bladed switches, run the **haDump** command on both CP Cards.

Severity Information

HAMKERNEL-ERROR_NOTIFICATION

Message

```
<switch number> Info HAMKERNEL-ERROR_NOTIFICATION, 4, Error notification received:
<error information>
```

Probable Cause The High Availability Manager Kernel has been notified of an error in the system. The source error itself will be logged before this message is logged. Depending on the severity of the error logged, the High Availability Manager will reboot or fail over, depending on the platform.

Recommended Action Run **haDump** and **errDump,** for SilkWorm 12000 obtain the output of **haDump** on both control processors, and then contact Technical Support.

For bladed switches, run **haDump** on both CP Cards.

Severity Information

HAMKERNEL-HTBT_DOWN

Message

```
<switch number> Info HAMKERNEL-HTBT_DOWN, 4, Heartbeat down
```

Probable Cause This message is logged when the active CP Card determines that the standby CP Card is down. This might happen as a result of an operator-initiated action such as **firmwaredownload**, when the CP Card is reset or removed, or as a result of an error in the standby CP Card.

Recommended Action If no operator-initiated action has caused the error, then run **haDump** and **errDump** on the active CP Card. Contact Technical Support with the command outputs.

Severity Information

HAMKERNEL-HTBT_UP

Message

```
<switch number> Info HAMKERNEL-HTBT_UP, 4, Heartbeat up
```

Probable Cause This message is logged when the active CP Card detects the standby CP Card. This message indicates that the standby CP Card is available to take over in case a failure happens on the active CP Card. This message is typically seen when the standby CP Card reboots.

Recommended Action If no operator-initiated action has caused the error, then run **haDump** and **errDump** on the active CP Card. Contact Technical Support with the command outputs.

Severity Information

HAMKERNEL-WARNING

Message

```
<switch number> Info HAMKERNEL-WARNING, 4, <warning information>
```

Probable Cause This message is logged when a system warning has occurred. The <*warning information*> indicates where the problem is and is used for troubleshooting.

Recommended Action Copy the error message, run the **hadump** and **errdump** command, and contact Technical Support with the information. On a SilkWorm 12000, obtain the output of **haDump** on both control processors.

For bladed switches, run the **hadump** command on both CP Cards.

Severity Information

HLO_System Error Messages

Chapter 20

HLO is a part of FSPF protocol that handles the HELLO protocol between adjacent switches. The HELLO protocol is used to establish connectivity with a neighbor switch, to establish the identity of the neighbor switch, and to exchange FSPF parameters and capabilities.

HLO-DEADTIMEOUT

Message

```
<switch number> Error HLO-DEADTIMEOUT, 2, Incompatible Inactivity timeout <dead tim-
eout> from port <port number>, correct value <value>
```

Probable Cause The HELLO message was incompatible. The dead timeout value does not match the value specified in the FSPF protocol. Since the dead timeout value is incompatible, the local switch will not accept FSPF frames from the remote switch.

Recommended Action The dead timeout value of the remote switch must be made compatible with the value specified in the FSPF protocol. See the manufacturer's documentation to change this value.

Severity Error

HLO-HLOTIMEOUT

Message

```
<switch number> Error HLO-HLOTIMEOUT, 2, Incompatible Hello timeout <HELLO timeout>
from port <port number>, correct value <correct value>
```

Probable Cause The HELLO message was incompatible and timed out on the specified port. Since the HELLO timeout value is incompatible (the HELLO timeout value does not match the value specified in the FSPF protocol), the local switch will not accept FSPF frames from the remote switch.

Recommended Action The HELLO timeout value of the remote switch must be made compatible with the value specified in the FSPF protocol. See the manufacturer's documentation to change this value.

Severity Error

HLO-INVHLO

Message

```
<switch number> Error HLO-INVHLO, 2, Invalid Hello received from port <port number>,
Domain = <domain ID>, Remote Port = <remote port ID>
```

Probable Cause The HELLO message received from the specified local port, domain ID, and remote port ID was reported to be invalid.

Recommended Action Since the HELLO message from the remote switch is incompatible with the local switch, the local switch will not accept FSPF frames from the remote switch. The HELLO message of the remote switch must be made compatible with the value specified in the FSPF protocol. See the manufacturer's documentation to change this value. Call Technical Support with questions.

Severity Error

kSWD_System Error Messages

Chapter 21

The Kernel Software Watchdog (kSWD) subsystem watches daemons for unexpected terminations and "hang" conditions and informs the HAM module to take corrective actions such as failover or reboot. The numbers and values provided in each error message are data interpreted by Engineering to analyze the cause of failure.

The following 21 applications are monitored by kSWD:

nsd	Name Server Daemon	zoned	Zone Daemon
emd	Environment Monitor	msd	Management Server Daemon
fabricd	Fabric Daemon	fspfd	FSPF Daemon
fcpd	FCPd Daemon	diagd	Diagnostics Daemon
snmpd	SNMP Daemon	track_changes	Track Changes Daemon
rpcd	FA-API RPC Daemon	evmd	EVM Daemon
psd	PS Daemon	rcsd	Reliable Commit Service Daemon
secd	Security Daemon	slapd	Slap Daemon
fwd	Fabric Watch Daemon	tsd	Time Service Daemon
webd	Web Tools Daemon	pdmd	PDM Daemon
fdmid	FDMI Daemon		

kSWD-APP_NOT_REFRESH_ERR

Message

```
<switch number> Critical kSWD-APP_NOT_REFRESH_ERR, 1, (k_SWD)Application with pid
<number> not refreshing watchdog.
```

Probable Cause A critical kernel software error occurred in the watchdog subsystem. A kernel application is not able to refresh the watchdog. Refer to the specified PID number to find out which application is failing. The switch will reboot (on single-CP switches) or fail over (on dual-CP switches).

Recommended Action Run the **savecore** command to find if a Core File was created. If a Core File is found, FTP all Core Files or FTP marked files to customer support.

Copy the error message and contact Technical Support.

Severity Critical

kSWD-kSWD_GENERIC_ERR_CRITICAL

Message

```
<switch number> Critical kSWD-kSWD_GENERIC_ERR_CRITICAL, 1, kSWD: <error message>
```

Probable Cause

A critical application error was reported in the watchdog subsystem. Refer to the string at the end of the error message for specific information. The switch will reboot (on single-CP switches) or fail over (on dual-CP switches).

The error message might be any one of the following:

- *<Detected unexpected termination of: <daemon name>>*
  Probable Cause: One of the critical processes ended unexpectedly.
- *<out of swdtab entries>*
  Probable Cause: Internal resource limitation in the software watchdog table.
- *<Performance error <number>>*
  Probable Cause: Internal error.
- *<<application name> failed to refresh SWD*** Sending SIGABRT to pid <process id number>>*
  Probable Cause: One of the critical process applications is found to be non-responsive; Sending Signal Abort.
- *<SWD: Reboot/Failover action*
  Probable Cause: Software watchdog decided to reboot or failover the Control Processor (CP).
- *<Sorry, registering the character device failed with <error number>>*
  Probable Cause: Internal device registration error.
- *<ERROR: can not set thresh secs wdt_period = <number>, savelog_thresh_period = <number>>*
  Probable Cause: Internal setup/initialization error.
- *<Error in unregister_chrdev: <number>>*
  Probable Cause: Internal error.

Recommended Action

Run the **savecore** command to find if a Core File was created. If a Core File is found, FTP all Core Files or FTP marked files to customer support.

Copy the error message and contact Technical Support.

Severity

Critical

LSDB_System Error Messages

Chapter 22

Link State Database (LSDB) is a part of the FSPF protocol that manages the Link State Database.

LSDB-LSID

Message

```
<switch number> Error LSDB-LSID, 2, Link State ID <link state ID> out of range
```

Probable Cause The Link State Database ID is out of the acceptable range.

Recommended Action This record will be discarded; no user action is required.

Severity Error

LSDB-MAXINCARN

Message

```
<switch number> Info LSDB-MAXINCARN, 4, Local Link State Record reached max incarna-
tion
```

Probable Cause The local Link State Database reached the maximum incarnations. An informational error message.

Recommended Action The incarnation number will wrap-around; no user action is required.

Severity Information

LSDB-NOLOCALENTRY

Message

```
<switch number> Critical LSDB-NOLOCALENTRY, 1, No database entry for local Link
State Record,domain <local domain>
```

Probable Cause There is no local Link State Record entry in the Link State Database.

Recommended Action Perform a switch disable and enable.

Severity Critical

LSDB-NOLSR

Message

```
<switch number> Warning LSDB-NOLSR, 3, No Link State Record for domain <local
domain>
```

Probable Cause There is no Link State Database record for the specified local domain.

Recommended Action Perform a switch disable and enable.

Severity Warning

MPATH_System Error Messages

Chapter 23

Multicast Path (MPATH) uses the Shortest Path First (SPF) algorithm to dynamically compute a broadcast tree.

MPATH-NOPARENT

Message

```
<switch number> Error MPATH-NOPARENT, 2, Null parent, lsId = <number>
```

Probable Cause A null parent was reported. MPATH uses a tree structure in which the parent is used to connect to the root of the tree.

Recommended Action No user action required. Call Technical Support if error persists.

Severity Error

MPATH-NOPARENTLSR

Message

```
<switch number> Error MPATH-NOPARENTLSR, 2, Null lsrP, lsId = <ls ID number>
```

Probable Cause The Link State Record is null.

Recommended Action No action required.

Severity Error

MPATH-UNREACHABLE

Message

```
<switch number> Warning MPATH-UNREACHABLE, 3, No minimum cost path in candidate list
```

Probable Cause No minimum cost path (FSPF MPath) is available in the candidate list (the candidate list is customer defined).

Recommended Action No action required.

Severity Warning

MQ_System Error Messages

Chapter 24

Message Queues (MQ) are used for interprocess communication. Message queues allow many messages, each of variable length, to be queued. Any process or Interrupt Service Routine (ISR) can write messages to a message queue. Any process can read messages from a message queue.

MQ-MSGTYPE

Message

```
<switch number> Error MQ-MSGTYPE, 2, mqRead, queue = <queue name>, queue ID = <queue ID> type = <message type>
```

Probable Cause

An unexpected message has been received in the specified message queue. The message queue name and the type of the message are indicated in message.

The following variables might be displayed in the error message:

- *<queue name>*
  fspf_q
- *<queue ID> <message type>*
  2 MSG_TX
  3 MSG_INTR
  4 MSG_STR
  6 MSG_ASYNC_IU
  7 MSG_LINIT_IU
  8 MSG_RSCN
  9 MSG_IOCTL
  10 MSG_ACCEPT
  11 MSG_IU_FREE
  12 MSG_US
  13 MSG_EXT_RSCN
  14 MSG_RDTS_START
  15 MSG_RDTS_SENDEFP
  16 MSG_RDTS_RESET

Recommended Action

Run the **mqshowall** command and record the output. Provide the **mqshowall** output as well as the error message and contact Technical Support.

Severity

Error

MS_System Error Messages

Chapter 25

The Management Service (MS) allows the user to obtain information about the Fibre Channel fabric topology and attributes by providing a single management access point. MS provides for both monitoring and control of the following areas:

- **Fabric Configuration Server** - provides for the configuration management of the fabric.
- **Unzoned Name Server** - provides access to Name Server information that is not subject to Zone constraints.
- **Fabric Zone Server** - provides access to and control of Zone information.

MS-INVALID_CTRESP

Message

```
<switch number> Error MS-INVALID_CTRESP, 2, MS Invalid CT Response from <domain>
```

Probable Cause The Management Server (MS) received an invalid Common Transport (CT) response from <*domain*>. The MS expects either a CT accept IU or a reject IU; the management server received neither response, which violates the FS-GS spec.

Recommended Action Check the integrity of the interconnect element at the specified domain.

Severity Error

MS-OUT_RESOURCES

Message

```
<switch number> Error MS-OUT_RESOURCES, 2, MS Failure while initializing <action>
```

Probable Cause

The Management Server (MS) failed while initializing the specified <*action*>.

The following <*actions*> might be displayed:

- <*while writing to ms_els_q*>
  Probable Cause: Unable to write a message to the Management Server Extended Link Service Queue.
- <*while inserting timer to timer list*>
  Probable Cause: Unable to add timer to resource.

Recommended Action

The switch might be temporarily busy and out of resources to respond to a request. If the error happens frequently, check the available memory on the switch using **memshow** and contact Technical Support.

Severity

Error

MS-PLDBSEG

Message

```
<switch number> Warning MS-PLDBSEG, 3, MS Platform Segmented port=<port number>
(<reason for segmentation> D= <domain>)
```

Probable Cause

The Management Server (MS) has segmented from another switch <*domain*> at the specified <*port number*> due to errors or inconsistencies defined in the MS Platform Service.

The following <*reasons for segmentation*> might be displayed:

- <*EXGPLDB failed: Unable to Activate Platform*>
  Probable Cause: Exchange of Platform Service database between fabrics has failed because activation of MS Platform Services failed on the other switch.
  Recommended Action: The other switch might not support MS Platform Service. Check capability using **mscapabilityshow**.

- <*PLCOMIT failed: Unable to activate Platform*>
  Probable Cause: Exchange of Platform Service database between fabrics has failed due to the failure of conditional activation of MS Platform Services on the other switch.
  Recommended Action: Contact Technical Support.

- <*EXGPLDB failed: Platform DB not mergeable*>
  Probable Cause: Exchange of Platform Service database between fabrics has failed due to conflicting databases between the switches.
  Recommended Action: Ensure mergeability of connecting fabrics. For example, some DB objects might have conflicting definitions. Use **msplatshow** to show content of DB and check for conflicts.

- <*EXGPLDB failed: DB size exceeds limit*>
  Probable Cause: Exchange of Platform Service database between fabrics has failed due to the violation of size allowance for MS Platform database.
  Recommended Action: Ensure that the merged databases will not have a final database size that exceeds the MS Platform database size limitation of 32K.

- <*Timeout: Ran out of retry count*>
  Probable Cause: Exceeded number of tries to merge MS Platform database with another fabric. Errors might be present in the fabric intercommunication.
  Recommended Action: Check cable and logical link to ensure health and retry fabric merge. If error recurs, contact Technical Support.

- <*Security: security conflict*>
  Probable Cause: Security is currently enforced and configuration state of MS Platform Service between merging fabrics is inconsistent.
  Recommended Action: Fabric might have enabled and disabled MS Platform Service states. Make both fabrics consistent using the commands **msplmgmtactivate** and **msplmgmtdeactivate**.

Recommended Action

See individual <*reasons for segmentation*> in Probable Cause above.

Severity

Warning

MS-PLSTATE

Message

```
<switch number> Debug MS-PLSTATE, 5, MS Platform Service Unstable(<function code>:
<message string> D= <domain number>)
```

Probable Cause

The management server (MS) Platform Service is unstable.

The following variables might be displayed:

- *<function code>* invoking error
  - *<capmat>* - msPlCapMatrix
  - *<CA>* - msPlCondActivate
- *<message string>*
  - *<No Resp for GCAP from>*
    Probable Cause: Switch did not respond to a request for GCAP (MS Get Capabilities) command.
    Recommended Action: No user action required.
  - *<GCAP sup but not PL by>*
    Probable Cause: GCAP (MS Get Capabilities) is supported but the flag for MS Platform Service is not set. Inconsistency observed.
    Recommended Action: Set the flag for the MS Platform Service.
  - *<GCAP Rejected (reason =BUSY) by>*
    Probable Cause: GCAP (MS Get Capabilities) is not supported by another switch.
    Recommended Action: No action required.
  - *<Reject EXGPLDB from>*
    Probable Cause: Request to exchange platform database was rejected. Other switch might be busy.
    Recommended Action: No action required.
- *<domain number>*
  Probable Cause: Target domain that caused error. Unique to fabric.

Recommended Action

See individual *<message string>* in Probable Cause above.

Severity

Debug

MS-RCSFAILED

Message

```
<switch number> Debug MS-RCSFAILED, 3, MS RCS failed. MS CT command = <CT command>
RCS reason =<RCS reason code> (<RCS reason code string>)
```

Probable Cause Usage of the Reliable Commit Service (RCS) has failed in MS.

The specified MS *<Command Transport command >* for an RCS request failed for the specified *<RCS reason>* and is described in more detail in the *<RCS reason code string>*.

Recommended Action Copy error message information and contact Technical Support.

Severity Debug

MS-TIME_OUT

Message

```
<switch number> Error MS-TIME_OUT, 2, MS time out while <error>
```

Probable Cause The Management Server (MS) timed out while acquiring a resource.

The following is displayed as the *<error>*:

- *<acquiring elsSemaRNID lock>*
  Probable Cause: Unable to acquire a semaphore lock for Request Node Identification Data (RNID).

Recommended Action Reboot switch and retry request. If error recurs, contact Technical Support.

Severity Error

MS-UNEXPECTED_IUDATASZ

Message

```
<switch number> Error MS-UNEXPECTED_IUDATASZ, 2, MS Unexpected iu_data_sz= <number
of bytes>
```

Probable Cause The Management Server (MS) received IU data of unexpected size. The IU payload and the IU size might be inconsistent with each other or with the command that is currently being processed.

Recommended Action Retry operation. If error recurs, contact Technical Support.

Severity Error

MS-UNSTABLE_DCOUNT

Message

```
<switch number> Debug MS-UNSTABLE_DCOUNT, 5, MS detected ONLY 1 Domain <domain in
local resource>.
```

Probable Cause The Management Server (MS) detected an unstable count of domains in its own local resource.

Recommended Action The fabric might be unstable. Try operation again later or contact Technical Support.

Severity Debug

MS-UNSTABLE_FABRIC

Message

```
<switch number> Debug MS-UNSTABLE_FABRIC, 5, MS detected Unstable Fabric(function
code>: <message string> d= <domain number>).
```

Probable Cause The Management Server (MS) detected an unstable fabric; the command or operation might not be successfully completed.

- *<function code>* invoking error
  - *<MsgPlatDBProc>* - msPlatMsgPlatDBProc
  - *<MsgGCAP>* - msPlatMsgGCAP
  - *<MsgPl(D)ACTV>* - *MsPlayMsgActivateProc*
- *<message string>*
  - *<DOMAIN_INVALID for a req from>*
    Probable Cause: Domain is invalid for a request.
  - *<No WWN for>*
    Probable Cause: Unable to acquire the World Wide Name (WWN) for corresponding domain.
- *<domain number>*
  Probable Cause: Target domain that caused error. Unique to fabric.

Recommended Action Copy error message string and contact Technical Support.

Severity Debug

NBFSM_System Error Messages

Chapter 26

NBFSM is a part of the FSPF (Fabric Shortest Path First) protocol that handles a neighboring or adjacent switch's Finite State Machine.

Input to FSM is an event used to move a neighboring or adjacent (directly connected to the local switch) switch from one state to another, based on specific events. For example, when two switches are connected to each other using an ISL (interswitch link) cable, they will be in Init State. After both switches receive HELLO messages, they move to the Database Exchange State, and so on.

NBFSM states are Down (0), Init (1), Database Exchange (2), Database Acknowledge Wait (3), Database Wait (4), and Full (5).

NBFSM-DUPEPORTSCN

Message

```
<switch number> Debug NBFSM-DUPEPORTSCN, 5, Duplicate E_Port SCN from port <port
number> in state <state change number>
```

Probable Cause A duplicate E_Port State Change Number was reported.

Recommended Action No action required.

Severity Debug

NBFSM-NGBRSTATE

Message

```
<switch number> Error NBFSM-NGBRSTATE, 2, Wrong input: <state name> to neighbor FSM,
state <current state name>, port <number>
```

Probable Cause The wrong input was sent to the neighbor Finite State Machine.

Recommended Action The input will be discarded and no user action is required.

Severity Error

NBFSM-XMITFLAG

Message

```
<switch number> Warning NBFSM-XMITFLAG, 3, DB_XMIT_SET flag not set in state <cur-
rent state name> input <state name>, port <number>
```

Probable Cause From the current state, the Data Base transmit set flag was not set for the specified input state on the specified port.

Recommended Action No user action required.

Severity Warning

PANIC_System Error Messages

Chapter 27

Panic errors are a result of unexpected software-related conditions.

PANIC-INCONSISTENT

Message

```
<switch number> Panic PANIC-INCONSISTENT, 0, <panic message>
```

Probable Cause The Name Server module is trying to sort data and discovers that the expected number of entries does not match the actual number of entries found. The *<panic message>* provides unique information for troubleshooting.

Recommended Action Copy the error message and contact Technical Support.

Severity Panic

PANIC-LSDB_CKSUM

Message

```
<switch number> Panic PANIC-LSDB_CKSUM, 0, Link State Database checksum failed, lsd-
beP = <hexadecimal number>, lsrP = <hexadecimal number>, LSID = <decimal number>
```

Probable Cause Error verifying the checksum in the Link State Database. This error message is used in the FSPF (Fabric Shortest Path First) module. The additional information provided includes:

lsdbeP: Link State Database Element Pointer
lsrP: Link State Record Pointer
LSID: Link State Identifier

Recommended Action Copy the error message and contact Technical Support.

Severity Panic

PANIC-MALLOC

Message

```
<switch number> Panic PANIC-MALLOC, 0, malloc failed <additional information>
```

Probable Cause Error message shows that a memory allocation failed and provides <*additional information*>.

Recommended Action Copy the error message and call Technical Support.

Severity Panic

PANIC-QCREATE

Message

```
<switch number> Panic PANIC-QCREATE, 0, mqCreate failed
```

Probable Cause Failed to create a message queue. Further details about this error are displayed on the console.

Recommended Action Copy console output, run **supportshow**, and contact Technical Support.

Severity Panic

PANIC-SEMCREATE

Message

```
<switch number> Panic PANIC-SEMCREATE, 0, semCreate failed
```

Probable Cause The Reliable Commit Service (RCS) subsystem used for Security, Mgmt Service, and Zoning failed to create a semaphore.

Recommended Action Run **supportshow** and contact Technical Support.

Severity Panic

PDM_System Error Messages

Chapter 28

Parity Data Manager (PDM) is a user space daemon responsible for the replication of persistent configuration files from the primary partition to the secondary partition and from the active CP Card to the standby CP Card.

PDM-CONFIG

Message

```
<switch number> Warning PDM-CONFIG, 3, Failed to parse pdm config
```

Probable Cause PDM process could not parse the configuration file. This might be caused by missing configuration file during the installation.

Recommended Action Reinstall firmware. If error recurs, contact Technical Support.

Severity Warning

PDM-FCREATE

Message

```
<switch number> Warning PDM-FCREATE, 3, File not created: <file name>
```

Probable Cause PDM failed to create <*file name*>.

Recommended Action Contact Technical Support.

Severity Warning

PDM-FOPEN

Message

```
<switch number> Warning PDM-FOPEN, 3, File open failed: <file name>
```

Probable Cause PDM could not open <*file name*>.

Recommended Action Contact Technical Support.

Severity Warning

PDM-FREAD

Message

```
<switch number> Warning PDM-FREAD, 3, File read failed: <file name>
```

Probable Cause PDM could not read data from <*file name*>.

Recommended Action Contact Technical Support.

Severity Warning

PDM-FWRITE

Message

```
<switch number> Warning PDM-FWRITE, 3, File write failed: <file name>
```

Probable Cause PDM could not write data to <*file name*>.

Recommended Action Contact Technical Support.

Severity Warning

PDM-WWNFAIL

Message

```
<switch number> Warning PDM-WWNFAIL, 3, Unable to write gen to WWN: <error code>
```

Probable Cause PDM failed to write generation number to the WWN Card.

Recommended Action Copy error code and contact Technical Support.

Severity Warning

PLATFORM_System Error Messages

Chapter 29

Platform (Service) Errors come from the port blade and CP blade. These error messages indicate any problems for each of these two hardware components, including problems coming from the PCI buses, i2c bus, FPGA (Field Programmable Gate Array), and power.

PLATFORM-CPLD_CTRL

Message

```
<switch number> Warning PLATFORM-CPLD_CTRL, 3, <specific error message>
```

Probable Cause

The diagnostic software failed to set the FC clock. The firmware is likely corrupted.

The following messages might be displayed in the <*specific error message*>:

- fabsys_get_hwStatus: invalid H/W unit
  Probable Cause: The system is trying to get hardware status on a specific blade in a specific slot, but the reported information is not valid.

- fabsys_set_hwUnit: invalid H/W unit
  Probable Cause: The system is trying to set the status of a blade in a specific slot, but the corresponding data is not valid.

- Can’t release i2c bus: copy_from_user failed
  Probable Cause: The system cannot copy data from userspace to kernel, so i2c bus cannot be released.

- Can’t access FC clock: get_user_ failed
  Probable Cause: The system cannot get data from the userspace to kernel, so cannot access the FC clock on the port blade.

- Can’t get FC clock: put_user failed
  Probable Cause: The system cannot put the data from kernel to userspace, so access to FC clock failed.

Recommended Action

Download new firmware and reboot.

Severity

Warning

PLATFORM-FUNCT_FAIL

Message

```
<switch number> Critical PLATFORM-FUNCT_FAIL, 1, <specific error message>
```

Probable Cause

The i2c bus has a problem that cannot be fixed by the system driver. This error is periodically followed by another error on a particular hardware unit connected to that bus.

The following messages might be displayed in the <*specific error message*>:

- sysCfgSelectMaster Failed
  Probable Cause: System failed to select HA master.
- sysHaInit can't initialize HA
  Probable Cause: HA failed to be initialized.
- fabsys_set_cpMaster Select/Set CP master failed
  Probable Cause: The system failed to select or set the HA CP master.
- fabsys_set_cpMaster Set mastership failed
  Probable Cause: The system failed to select or set the HA CP master.
- fabsys_set_ownSwMask Set own-switch mask failed
  Probable Cause: The system failed to set up switch mask. The switch mask is a bitmap that corresponds to the switch number.

Recommended Action

Try unplugging and replugging in the CP card. If this doesn't work, try cycling the power for the switch. If these don't work, reinstall the firmware.

Severity

Critical

PLATFORM-MALLOC

Message

```
<switch number> Critical PLATFORM-MALLOC, 1, <specific error message>
```

Probable Cause

The memory allocation failed. The system is low on memory, has severe memory fragmentation, or has a memory leak. The following message will be displayed in the <*specific error message*>: < pciInitBlade Allocate memory for new blade failed>.

Recommended Action

Reboot the switch. If the problem is not resolved, update the firmware.

Severity

Critical

PLATFORM-NOT_SUPPORT (Critical)

Message

```
<switch number> Critical PLATFORM-NOT_SUPPORT, 1, <error message> (<name>= <value>)
```

Probable Cause The specified platform is not supported or the firmware is corrupt.

Recommended Action Check the FRU header of the blade (if the blade ID is supported); download new firmware and reboot.

Severity Critical

PLATFORM-NOT_SUPPORT (Warning)

Message

```
<switch number> Warning PLATFORM-NOT_SUPPORT, 1, <error message>
```

Probable Cause The specified platform is not supported or the firmware is corrupt.

Recommended Action Check the FRU header of the blade (if the blade ID is supported); download new firmware and reboot.

Severity Warning

PLATFORM-NULL_VAL

Message

```
<switch number> Critical PLATFORM-NULL_VAL, 1, <null value>
```

Probable Cause A null pointer is detected.

Recommended Action No action required.

Severity Critical

PLATFORM-SERVICE

Message

```
<switch number> Warning PLATFORM-SERVICE, 3, <specified message reason>
```

Probable Cause The specified platform failed for the reason displayed in the message. Some application failed to use the system driver. The firmware is likely corrupt.

Recommended Action Download new firmware and reboot.

Severity Warning

PLATFORM-SYSPCI_CFG

Message

```
<switch number> Critical PLATFORM-SYSPCI_CFG, 1, <function name> <specified error
message>
```

Probable Cause System Driver failed to initialize the CP board (specifically, the PCI bridges on the CP). There is likely a hardware problem on the CP board; the bridges might be damaged.

Recommended Action Cycle power on the CP Card. If this doesn't correct the problem, replace the CP Card.

Severity Critical

PORT_System Error Messages

Chapter 30

These PORT error messages deal with the front-end user ports on the switch. Front-end user ports are directly accessible by users to connect end devices or connect to other switches.

PORT-ENABLE_FAIL

Message

```
<switch number> Info PORT-ENABLE_FAIL, 4, Port <port number> could not be enabled
because it is disabled due to long distance.
```

Probable Cause The specified port could not be enabled because other ports in the same quad have used up the buffers available for this quad. This happens when other ports were configured to be long distance.

Recommended Action To enable this port, the user can reconfigure the other E_ports so they are "not long distance," or the user can change the other E_ports so they are not E_ports. This will free up some buffers and allow this port to be enabled.

Severity Information

PORT-LINK_FAULT

Message

```
<switch number> Warning PORT-LINK_FAULT, 3, Port <port number> Faulted because of
many Link Failures
```

Probable Cause The specified port is now disabled because the link on this port had multiple failures within a short amount of time. This problem is typically related to hardware.

Recommended Action Check and replace (if necessary) the hardware attached to both ends of the specified *<port number>*, including:

- the media (GBICs/SFPs)
- the cable (fibre optic or copper ISL)
- the attached devices

When finished checking the hardware, perform **portenable** to reenable the port.

Severity Warning

PS_System Error Messages

Chapter 31

The Performance Server daemon measures the amount of traffic between end points or traffic with particular frame formats, such as SCSI frames, IP frames, and customer-defined frames.

PS-ASPINIT

Message

```
<switch number> Error PS-ASPINIT, 2, PS: <name of function>(): aspInit() failed.
```

Probable Cause The Application Service Provide (the ASP library for all daemons) failed to initialize. The <*name of function*> provides the specific area in which this ASPINIT failure occurred; this failure only occurs in the “main()” portion of the Performance Server daemon.

Recommended Action Copy the error message, run **supportshow**, and call Technical Support.

Severity Error

PS-CALLOC

Message

```
<switch number> Error PS-CALLOC, 2, PS:<name of function>() Failed to allocate <num-
ber of bytes> bytes
```

Probable Cause The switch failed to allocate the specified number of bytes of memory for the specified <*name of function*>. The function area is specified in the error message; this error can occur in any area in which memory is allocated.

Recommended Action Run the **supportshow** command for further information regarding memory allocation. Copy the error message and contact customer support.

Severity Error

PS-HAINIT

Message

```
<switch number> Error PS-HAINIT, 2, PS: <name of function>(): ps_init_ha() failed.
```

Probable Cause The High Availability initiation failed. The function area is specified in the error message; this error only occurs in ps_init().

Recommended Action Copy the error message and contact Technical Support.

Severity Error

PS-IPCEXIT

Message

```
<switch number> Error PS-IPCEXIT, 2, PS: <name of function>(): ipcExit() failed.
```

Probable Cause The Interprocess Communication (IPC) failed to exit. The IPC is the method used by the switch to communicate with all daemons. The function area is specified in the error message; this error only occurs in main().

Recommended Action Copy the error message and contact Technical Support.

Severity Error

PS-IPCINIT

Message

```
<switch number> Error PS-IPCINIT, 2, PS: <name of function>(): ipcInit() failed.
```

Probable Cause The performance monitor Interprocess Communication (IPC) initiation failed. The IPC is the method used by the switch to communicate with all daemons. The function area is specified in the error message; this error only occurs in main().

Recommended Action Run the **supportshow** command and contact Technical Support.

Severity Error

PS-SYSMOD

Message

```
<switch number> Error PS-SYSMOD, 2, PS: <name of function>(): sysMod() failed.
```

Probable Cause Unable to open system module. The function area is specified in the error message; this error only occurs in sysModInit() and sysModGetHwModel().

Recommended Action Run the **supportshow** command and contact Technical Support.

Severity Error

PS-THRCREATE

Message

```
<switch number> Error PS-THRCREATE, 2, PS: <name of function>(): pthread_create()
failed to create <name of thread>, rc = <return code>
```

Probable Cause The PS thread was not created due to an unknown reason; a resource allocation problem might be the cause. The function area is specified in the error message; this error only occurs in ps_init() and ps_reqmgr_init().

The possible return codes (RC) are:

- EAGAIN (-11)
- EINVAL (-22)
- EPERM (-1)

Recommended Action Run the **supportshow** command for further information regarding memory allocation. Copy the error message and contact Technical Support.

Severity Error

RCS_System Error Messages

Chapter 32

Reliable Commit Service (RCS) Error Messages get a request from Zoning, Security, or Management Server for passing data messages to switches in the fabric. RCS then asks RTWR to deliver the message. RCS also acts as a gatekeeper and limits the number of outstanding requests per Zoning, Security, or Management Server module.

RCS-APP_NOTREG

Message

```
<switch number> Error RCS-APP_NOTREG, 0, Application <application name> not regis-
tered, HA State Replication ineffective
```

Probable Cause If the specified application does not register with RCS, then RCS returns this error.

Recommended Action Collect <*application name*> information provided in the message and call Technical Support.

Severity Error

RCS-LOCAL_REJECT

Message

```
<switch number> Information RCS-LOCAL_REJECT, 1, State <current state>, Application
<application ID> returned <reject reason>
```

Probable Cause The specified application on another switch rejects this RCS transaction with the specified reject reason; then, RCS returns this error and RCS aborts the current transaction. The current state describes at what point in the transaction the reject occurred.

Recommended Action For the first reject, wait until the other user finishes and then resend transaction. If this reject happens again, examine the correctness of the data being passed. If the data is correct, collect information provided in the error message and call Technical Support.

Severity Information

RCS-RCSDISABLED

Message

```
<switch number> Debug RCS-RCSDISABLED, 5, RCS has been disabled. Some switches in
the fabric do not support this feature
```

Probable Cause The RCS feature has been disabled on the local switch because not all switches in the fabric support RCS. Currently 2.6, 3.1, and 4.1 support the RCS feature.

Recommended Action Upgrade firmware to support RCS.

Severity Debug

RCS-RCSENABLED

Message

```
<switch number> Debug RCS-RCSENABLED, 5, RCS has been enabled.
```

Probable Cause The RCS feature has been enabled.

Recommended Action None required.

Severity Debug

RCS-RCSENOMEM

Message

```
<switch number> Error RCS-RCSENOMEM, 2, Failed to allocate memory: <function name>
```

Probable Cause Error: No Memory. The specified RCS function failed to allocate memory.

Recommended Action Check memory usage on the switch, or collect <*function name*> information provided in the message and call Technical Support.

Severity Error

RPCD_System Error Messages

Chapter 33

The Remote Procedure Call Daemon (RPCD) is used by the Fabric Access for API-related tasks.

RPCD-AUTH_ERR

Message

```
<switch number> Warning RPCD-AUTH_ERR, 3, Authentication Error: client <IP address>
has bad credentials: <bad user name and password pair>
```

Probable Cause An authentication error was reported. The specified <*client IP address*> has bad credentials.

Recommended Action Enter correct root, admin, or user name and password pair from the Fabric Access API host.

Severity Warning

RPCD-INIT_FAIL

Message

```
<switch number> Error RPCD-INIT_FAIL, 2, Initialization Error: <function> failed,
error code = <error code number>
```

Probable Cause

The RPCD initialization failed due to the specified reason.

The following variables might be displayed:

- *<function>*
  - *<apigetsysconfig>*
    Probable Cause: Provides the daemon information about the number of switches in the chassis and which is the master.
  - *<socket>*
    Probable Cause: Method to initialize TCP/IP communication between host and switch.
  - *<bind>*
    Probable Cause: Method to initialize TCP/IP communication between host and switch.
  - *<svctcpcreate>*
    Probable Cause: Method to initialize RPC interface between host and switch.
  - *<scv_register>*
    Probable Cause: Method to initialize RPC interface between host and switch.
  - *<pthread_create>*
    Probable Cause: Method to initialize FSS thread.
- *<error code number>*
  - -1 = failed

Recommended Action

Reinstall Fabric OS firmware and reboot. If the error recurs, copy error message and contact Technical Support.

Severity

Error

RTWR_System Error Messages

Chapter 34

Reliable Transport Write and Read (RTWR) helps deliver data messages to specific switches in the fabric or to all of the switches in the fabric. For example, if some of the switches are not reachable or are offline, then RTWR would return an "unreachable" message to the caller, allowing the caller to take the appropriate action. If a switch is not responding, then RTWR would retry 100 times.

RTWR-FAILED

Message

```
<switch number> Error RTWR-FAILED, 2, RTWR <routine: error message>, <detail 1>,
<detail 2>, <detail 3>, <detail 4>, <detail 5>
```

Probable Cause

The RTWR failed. The *<routine: error message>* provides the name of the routine having the error, and, if displayed, specific error information is provided after the colon. Additionally, *<details 1 2 3 4 5>* provide details to help the user or Technical Support isolate the problem.

The error message might display any of the following details:

- "rtwrInit: No Memory", 0x9abc, 0x8def, 100, 50, 123
  Probable Cause: RTWR has run out of memory inside the rtwrInit function.
  <Detail 1>, if non-zero, contains the pointer of the payload received.
  <Detail 2>, if non-zero, contains the switch ID of the destination domain.
  <Detail 3>, if non-zero, contains the size of memory to be allocated.
  <Detail 4>, if non-zero, contains the thread ID.
  <Detail 5>, if non-zero, contains the process ID.
  Recommended Action: Check the memory usage on the switch or call Technical Support.

- "rtwrTask: mqRead failed", 0, 0, 0, 0, 0
  Probable Cause: Cannot read from a message queue. Might be out of memory.
  Recommended Action: Check the memory usage on the switch or call Technical Support.

- "rtwrTask exited unexpectedly", 0, 0, 0, 0, 0
  Probable Cause: Internal error
  Recommended Action: Call Technical Support.

- 'rtwrRequest: No memory", 0, 0, 0, 0, 0
  Probable Cause: RTWR has run out of memory inside the rtwrInit function.
  <Detail 1>, if non-zero, contains the pointer of the payload received.
  <Detail 2>, if non-zero, contains the switch ID of the destination domain.
  <Detail 3>, if non-zero, contains the size of memory to be allocated.

<*Detail 4*>, if non-zero, contains the thread ID.
<*Detail 5*>, if non-zero, contains the process ID.
Recommended Action: Check the memory usage on the switch or call Technical Support.

- "rtwrAsyncMultiRequest", 0, 0, 0, 0, 0
  Probable Cause: Internal error.
  Recommended Action: Call Technical Support.

- "rtwrAsyncMultiRequest: pidlist_copy failed", 0, 0, 0, 0, 0
  Probable Cause: Out of memory.
  Recommended Action: Check the memory usage on the switch or call Technical Support.

- "rtwrSyncRequest" , 0, 0, 0, 0, 0
  Probable Cause: Internal error.
  Recommended Action: Call Technical Support.

- "rtwrSyncRequest: Unreachable domain", 0xff, domain, 0x9abc, domain, 0xff
  Probable Cause: Domain is not reachable.
  Recommended Action: Use **fabricshow** to see if domain is offline. Check the physical ISLs for the domain.

- "rtwrSyncRequest: Cannot create sync. semaphore", 0, 0, 0, 0, 0
  Probable Cause: Out of memory.
  Recommended Action: Check the memory usage on the switch or call Technical Support.

- "rtwrSyncRequest: Cannot write message queue", 0, 0, 0, 0, 0
  Probable Cause: Out of memory.
  Recommended Action: Check the memory usage on the switch or call Technical Support.

- "rtwrSyncRequest: semaTake failed", 0, 0, 0, 0, 0
  Probable Cause: Internal error.
  Recommended Action: Call Technical Support.

- "rtwrMsgProcess: msg NULL", 0, 0, 0, 0, 0
  Probable Cause: An empty message has been received. Internal error.
  Recommended Action: Call Technical Support.

- "rtwrRequestProcess: target_bm Null", 0, 0, 0, 0, 0
  Probable Cause: Out of memory.
  Recommended Action: Check the memory usage on the switch or call Technical Support.

- "rtwrRequestProcess: cannot allocate fcAsyncMultiCB_t", 0, 0, 0, 0, 0
  Probable Cause: Out of memory.
  Recommended Action: Check the memory usage on the switch or call Technical Support.

- "rtwrRequestProcess: rtwrMultiTransmit failed", 0, 0, 0, 0, 0
  Probable Cause: Transmission of payload to multiple destinations failed.
  Recommended Action: Call Technical Support.

- “rtwrRespProcess”, 0, 0, 0xff, 0xff, 0xff
  Probable Cause: Invalid pointer to payload.
  Recommended Action: Call Technical Support.

- “rtwrRespProcess”, ...
  Probable Cause: Internal error.
  Recommended Action: Call Technical Support.

- ”rtwrRespProcess: release_kiu failed”, ..., 0,0
  Probable Cause: Internal error.
  Recommended Action: Call Technical Support.

- “rtwrRespProcess: no such state”, 0, 0, 0, 0, 0
  Probable Cause: Internal error.
  Recommended Action: Call Technical Support.

- “rtwrTransmit”, domain, ...
  Probable Cause: Transmission problem to specified domain.
  Recommended Action: Use **fabricshow** to see if domain is offline. Check the physical ISLs for the domain. Call Technical Support.

- “rtwrTransmit: fcAsyncMultiSend failed”, 0, 0, 0, 0, 0
  Probable Cause: Internal error.
  Recommended Action: Call Technical Support.

Recommended Action See action provided with each appropriate message above.

Severity Error

RTWR-TRANSMIT

Message

```
<switch number> WARNING RTWR-TRANSMIT, 3, RTWR <error message>, <detail1>,
<detail2>, <detail3>, <detail4>, <detail5>
```

Probable Cause RTWR has exhausted the maximum number of retries sending data to the specified domain. Details are as follows:

- *<error message>:* RTWRTransmit: Maxretries exhausted
- *<detail1>*: Port
- *<detail2>*: Domain
- *<detail3>*: Retry Count
- *<detail1>:* Status
- *<detail1>:* Process ID

Recommended Action User should check whether specified Domain ID is offline. Use **fabricshow** to see if the specified Domain ID is online. Call Technical Support if error persists.

Severity Warning

SCN_System Error Messages

Chapter 35

The internal State Change Notification (SCN) is used for state change notifications from the kernel to the daemons within Fabric OS.

SCN-SCNQ_OVERFLOW

Message

```
<switch number> Critical SCN-SCNQ_OVERFLOW, 1, SCN queue overflow for <daemon name>
```

Probable Cause

An attempt to write a State Change Notification message to a specific SCN queue has failed because the SCN queue for the specified <*daemon name*> is full. This might be caused by the daemon hanging or if the system is busy.

The variables for the <*daemon name*> are:

fabricd
asd
evmd
fcpd
webd
msd
nsd
psd
snmpd
zoned
fspfd
tsd

Recommended Action

If this is caused by a hung daemon, eventually the software watchdog will kick in and cause the daemon to core dump. Save the console messages and the core dump and contact Technical Support. If the system is busy, the condition will be temporary.

Severity

Critical

SEC_System Error Messages

Chapter 36

This section describes security errors, warnings, or information that is generated during security-related data management or fabric merge operations. Administrators should pay more attention to secure fabric to distinguish between internal switch/fabric operation error or external attack.

SEC-RSENDFAIL

Message

```
<switch number> Error SEC-RSENDFAIL, 2, RCS process fails: %s
```

Probable Cause The RCS (Reliable Commit Service) process fails to complete. RCS is a reliable mechanism to transfer data from one switch to the other switches within the fabric. This mechanism guarantees that either all switches commit to the new database or none of them update to the new database. This process can fail if one switch in the fabric is busy or in an error state that can not accept the database.

Recommended Action RCS is used when the security database is changed by a command issued by security (e.g. secPolicySave, secPolicyActivate, secVersionReset...). If the switch is busy, the command might fail the first time only. Retry after first fail. If the command fails consistently, contact Technical Support.

Severity Error

SEC-SECDBFAIL

Message

```
<switch number> Warning SEC-SECDBFAIL, 3, Security data fails: %s
```

Probable Cause This message occurs when the receiving switch fails to validate the security database sending from the primary FCS switch. Probable causes for this error can be that the data package is corrupted, the time stamp on the package is out of range as a result of replay attack or out-of-sync time service, or the signature verification failed. Signature verification failure might be due to a internal error such as losing the primary public key or might be due to an invalid database.

Recommended Action Issue **secFabricShow** command to verify that the fabric is still consistent. All the switches should be in READY state. If a switch is in Error state, the database might not be correctly updated for that specific switch. Follow standard recovery process. The error might also be a result of an internal corruption or a hacker attack to the secure fabric.

Severity Warning

SEC-SECDLFAIL

Message

```
<switch number> Warning SEC-SECDLFAIL, 3, Fail to download security data to domain
<domain number> after <number of retries> retries
```

Probable Cause The specified domain number failed to download security data after the specified number of attempts. The primary switch will segment the failed switch after 30 tries. The failed switch might have had some internal error and failed to accept the database download.

Recommended Action Reset the version stamp on the switch to 0 and then rejoin the switch to the fabric. If the switch consistently fails, contact Technical Support.

Severity Error

SEC-SECINFO

Message

```
<switch number> Info SEC-SECINFO, 4, %s
```

Probable Cause The switch might exhibit low memory, queue full, fail to set password, or fail to set SNMP string.

Recommended Action Depending on the information message, you should check the status of the switch and then retry the process or command. If the problem persists, contact Technical Support.

Severity Information

SEC-SECINFORM

Message

```
<switch number> Info SEC-SECINFORM, 4, Primary FCS receives data request from domain
<domain number>
```

Probable Cause The primary FCS received a data request from the specified domain. For example, if the switch fails to update the database or is attacked (data injection), a message is generated to the primary FCS to try to correct and resync with the rest of the switches in the fabric.

Recommended Action Check the fabric status using **secFabricShow** to verify the fabric is not being attacked by unauthorized users.

Severity Information

SEC-SEC_STATS

Message

```
<switch number> Warning SEC-SEC_STATS, 3, Security statistics error: %s
```

Probable Cause Logs each error for any statistic-related command for security (secStatsShow, secStatsReset) to keep track of any security violations on the switch. The counter is updated automatically when a security violation occurs. This message might also occur if the updating counter fails.

Recommended Action If the message is the result of a user command, retry the statistic command. If the problem persists, contact Technical Support.

Severity Warning

SEC-SECVIOL_API

Message

```
<switch number> Info SEC-SECVIOL_API, 4, Security violation: Unauthorized host with
IP address <IP address> tries to establish API connection.
```

Probable Cause A security violation was reported. The specified unauthorized host attempted to establish an API connection.

Recommended Action Check for any unauthorized access to the host via the switch through the API connection.

Severity Information

SEC-SECVIOL_HTTP

Message

```
<switch number> Info SEC-SECVIOL_HTTP, 4, Security violation: Unauthorized host with
IP address <IP address> tries to establish HTTP connection.
```

Probable Cause A security violation was reported. The specified unauthorized host attempted to establish an HTTP connection.

Recommended Action Check for any unauthorized access to the host via the switch through the HTTP connection.

Severity Information

SEC-SECVIOL_TELNET

Message

```
<switch number> Info SEC-SECVIOL_TELNET, 4, Security violation: Unauthorized host
with IP address <IP address> tries to establish TELNET session.
```

Probable Cause A security violation was reported. The specified unauthorized host attempted to establish a Telnet connection.

Recommended Action Check for any unauthorized access to the host via the switch through the Ethernet connection.

Severity Information

SECLIB_System Error Messages

Chapter 37

Security Library (SECLIB) is a facility used by the Fabric OS modules. The Security Library provides functionality for enforcement of policies, identification of the switch's role in the fabric, and other tasks. Switch Connection Control (SCC), Device Connection Control (DCC), Management Server (MS), and Internet Protocol (IP) policies are enforced and Fibre Channel Switch (FCS) and non-FCS roles are identified, using the Security Library functions.

SECLIB-SECVIOL_DCC

Message

```
<switch number> Info SECLIB-SECVIOL_DCC, 4, Security violation: Unauthorized device
<device node name> tries to flogin to port <port number> of switch <port node name>.\
```

Probable Cause A security violation was reported. The specified unauthorized device attempted to f log in to the specified port and switch.

Recommended Action Check DCC policy and verify that the specified device is allowed in the fabric and is included in the DCC policy. If the specified device is not included in the policy, add it to the policy. If the device is not allowed, this is a valid violation message and an unauthorized entity is trying to gain access to your fabric. Action should be taken, as mandated by your Enterprise Security Policy.

Severity Information

SECLIB-SECVIOL_LOGIN_API

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_API, 4, Security violation: Login failure
attempt via API.  IP Addr: <IP address>
```

Probable Cause Wrong password was used while trying to log in through an API connection; the login failed.

Recommended Action Use the correct password.

Severity Information

SECLIB-SECVIOL_LOGIN_HTTP

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_HTTP, 4, Security violation: Login failure
attempt via HTTP.  IP Addr: <IP address>
```

Probable Cause Wrong password was used while trying to log in through a web browser; the login failed.

Recommended Action Use the correct password.

Severity Information

SECLIB-SECVIOL_LOGIN_MODEM

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_MODEM, 4, Security violation: Login fail-
ure attempt via Modem.
```

Probable Cause A security violation was reported. An unauthorized device attempted to log in through a modem connection; the login failed.

Recommended Action Check the Serial Policy and verify that the connection is allowed. If the connection is allowed but not specified, allow connection from Serial Policy.

If Serial Policy does not allow connection, this is a valid violation message and an unauthorized entity is trying to access your fabric. Appropriate action should be taken, as mandated by your Enterprise Security Policy.

Note: The Serial Policy controls both modem and serial access, so enabling access in Serial Policy will enable both modem and serial access.

Severity Information

SECLIB-SECVIOL_LOGIN_REMOTE

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_REMOTE, 4, Security violation: Login fail-
ure attempt via TELNET/SSH/RSH.  IP Addr: <IP address>
```

Probable Cause Wrong password was used while trying to log in through telnet, SSH, or RSH; the login failed.

Recommended Action Use the correct password.

Severity Information

SECLIB-SECVIOL_LOGIN_SERIAL

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_SERIAL, 4, Security violation: Login fail-
ure attempt via SERIAL.
```

Probable Cause Wrong password was used while trying to log in through serial connection; the login failed.

Recommended Action Use the correct password.

Severity Information

SECLIB-SECVIOL_MSaccess

Message

```
<switch number> Info ECLIB-SECVIOL_MSaccess, 4, Security violation: Unauthorized
access from MS device node name <device node name>, device port name <device port
name>.
```

Probable Cause A security violation was reported. The specified unauthorized Management Server (MS) device attempted to establish a connection.

Recommended Action Check Management Server Policy and verify that the connection is allowed. If the connection is allowed but not specified, allow connection in MS Policy.

If MS Policy does not allow connection, this is a valid violation message and an unauthorized entity is trying to access your fabric. Appropriate action should be taken, as mandated by your Enterprise Security Policy.

Severity Information

SECLIB-SECVIOL_MSfwrd

Message

```
<switch number> Info SECLIB-SECVIOL_MSfwrd, 4, Security violation: MS command is
forwarded from non primary FCS switch.
```

Probable Cause A security violation was reported. A Management Server command was forwarded from a non-primary FCS switch.

Recommended Action No action required.

Severity Information

SECLIB-SECVIOL_MSop

Message

```
<switch number> Info SECLIB-SECVIOL_MSop, 4, Security violation: MS device <device
wwn> operates on non primary FCS switch.
```

Probable Cause A security violation was reported. A Management Server device is operating on a non-primary FCS switch.

Recommended Action No action required.

Severity Information

SECLIB-SECVIOL_RSNMP

Message

```
<switch number> Info SECLIB-SECVIOL_RSNMP, 4, Security violation: Unauthorized host
with IP address <IP address> tries to do SNMP read operation.
```

Probable Cause A security violation was reported. The specified unauthorized host attempted to perform a Read SNMP operation (RSNMP).

Recommended Action Check RSNMP Policy to verify that hosts allowed access to the fabric through SNMP read operations are included in the RSNMP Policy. If the host is allowed access to the fabric but is not included in the RSNMP Policy, add the host to the policy.

If host is not allowed access to the fabric, this is a valid violation message and an unauthorized entity is trying to access your fabric. Appropriate action should be taken, as mandated by your Enterprise Security Policy.

Severity Information

SECLIB-SECVIOL_SCC

Message

```
<switch number> Info SECLIB-SECVIOL_SCC, 4, Security violation: Unauthorized switch
<switch wwn> tries to join secure fabric.
```

Probable Cause A security violation was reported. The specified unauthorized switch attempts to join the secure fabric.

Recommended Action Check the Security Connection Control Policy (SCC Policy specifies the WWNs of switches allowed in the fabric) to verify which switches are allowed in the fabric. If the switch is allowed in the fabric but not included in the SCC Policy, add the switch to the policy.

If the switch is not allowed in the fabric, this is a valid violation message and an unauthorized entity is trying to access the fabric. Appropriate action should be taken, as mandated by your Enterprise Security Policy.

Severity Information

SECLIB-SECVIOL_WSNMP

Message

```
<switch number> Info SECLIB-SECVIOL_WSNMP, 4, Security violation: Unauthorized host
with IP address <IP address> tries to do SNMP write operation.
```

Probable Cause A security violation was reported. The specified unauthorized host attempted to perform a write SNMP operation (WSNMP).

Recommended Action Check the WSNMP Policy and verify which hosts are allowed access to the fabric through SNMP. If the host is allowed access to the fabric but is not included in the policy, add the host to the policy.

If the host is not allowed access to the fabric, this is a valid violation message and an unauthorized entity is trying to access your fabric. Appropriate action should be taken, as mandated by your Enterprise Security Policy.

Severity Information

SEMA_System Error Messages

Chapter 38

Semaphore (SEMA) is used to control the flow of data traffic, so that traffic flow does not overlap and crash the software.

SEMA-SEMGIVE

Message

```
<switch number> Critical SEMA-SEMGIVE, 1, semaGive, sema = <semaphore>, errno =
<error number>
```

Probable Cause A failure occurred when releasing a semaphore from the queue. The <*semaphore*> provides which semaphore had the error, and <*error number*> is the internal error number used for debugging.

Recommended Action Copy the error message and contact Technical Support.

Severity Critical

SEMA-SEMTAKE

Message

```
<switch number> Critical SEMA-SEMTAKE, 1, semaTake, sema = <semaphore>, errno =
<error number>
```

Probable Cause A failure occurred when taking a semaphore. The <*semaphore*> provides which semaphore had the error, and <*error number*> is the internal error number used for debugging.

Recommended Action Copy the error message and contact Technical Support.

Severity Critical

SLAP_System Error Messages

Chapter 39

This section describes SLAP (switch link authentication protocol) error messages. In secure mode every E-port goes through mutual authentication before the E-port formation is completed. The following error messages describe the failures that can occur during this authentication process. The Administrator should pay close attention as this could have serious security implications to the SAN.

SLAP_CERTCHECKFAIL

Message

```
<switch number> Error SLAP-CERTCHECKFAIL, 3, Security Violation: Certificate verifi-
cation failed on port %d
```

Probable Cause The certificate on a port could not be verified against the root certificate.

Recommended Action A switch is trying to join a fabric and its certificate is not valid. A rogue switch could be trying to join the fabric on this port.

Severity Warning

SLAP_MALLOCFAIL

Message

```
<switch number> Error SLAP-MALLOCFAIL, 3, Malloc failed in SLAP daemon
```

Probable Cause The SLAP daemon could not allocate memory.

Recommended Action Memory could be very low on the system. Reboot the switch and see if it still persists.

Severity Warning

SLAP_SECPOLICYINIT

Message

```
<switch number> Error SLAP-SECPOLICYINIT, 3, Security Policy Initialization Failed
```

Probable Cause The SLAP daemon failed to initialize the security library.

Recommended Action The SLAP daemon did not start because the library initialization failed. Reboot the switch and see if it still persists.

Severity Warning

SLAP_SIGNCHECKFAIL

Message

```
<switch number> Error SLAP-SIGNCHECKFAIL, 3, Security Violation: Signature verifica-
tion failed on port %d
```

Probable Cause The signature of a challenge received could not be verified.

Recommended Action Check the switch connected to the port, it could be a rogue switch. There could also be an intruder in the link.

Severity Warning

SLAP_WWNCHECKFAIL

Message

```
<switch number> Error SLAP-WWNCHECKFAIL, 3, Security Violation: wwn check failed on
port %d
```

Probable Cause The certificate received from a switch does not have the WWN of that switch.

Recommended Action Check if the certificate WWN matches the switch WWN. If not, the switch sending the switch cerificate could be a rogue switch or its certificate could be corrupt.

Severity Warning

SULIB_System Error Messages

Chapter 40

Software Upgrade Library (SULIB) provides **firmwaredownload** command capability, which downloads firmware to both CP cards with a single command. The following error messages might be seen if there are any problems during the **firmwaredownload** procedure, when the firmware is being downloaded to both CPs. General outline of the firmware download procedure: first the new firmware is downloaded to the standby CP. Once the new firmware is deemed good, the active CP automatically fails over and the standby CP takes over. The new firmware is then downloaded to the now standby CP, and when the firmware is good, CP2 fails over and CP1 is again the active CP. For additional information, refer to the *Fabric OS Procedures Manual*, Firmware Download chapter.

SULIB-ACTIVE_FAILOVER

Message

```
<switch number> Info SULIB-ACTIVE_FAILOVER, 4, Active CP forced failover succeeded.
This CP is now active.
```

Probable Cause The forced failover was successful and the standby CP is now the active CP. An informational message.

Recommended Action No action required. The **firmwaredownload** command is progressing as expected.

Severity Information

SULIB-CP_REBOOT

Message

```
<switch number> Info SULIB-CP_REBOOT, 4, Standby CP reboots.
```

Probable Cause The standby CP will reboot. An informational message.

Recommended Action No action required. The **firmwaredownload** command is progressing as expected.

Severity Information

SULIB-CP_REBOOT_OK

Message

```
<switch number> Info SULIB-CP_REBOOT_OK, 4, Standby CP rebooted successfully.
```

Probable Cause The standby CP has rebooted successfully. An informational message.

Recommended Action No action required. The **firmwaredownload** command is progressing as expected.

Severity Information

SULIB-FWDL_END

Message

```
<switch number> Warning SULIB-FWDL_END, 3, FirmwareDownload has completed success-
fully
```

Probable Cause The firmware download was completed successfully to the both CPs. An informational message.

Recommended Action No action required. The **firmwaredownload** command has completed as expected.

Severity Warning

SULIB-FWDL_FAIL

Message

```
<switch number> Info SULIB-FWDL_FAIL, 4, FirmwareDownload failed (status=<error mes-
sage>).
```

Probable Cause The firmware download failed. The additional <*error message*> information provides debugging information.

Recommended Action Call Technical Support or see the *Fabric OS Procedures Guide* for troubleshooting information.

Severity Information

SULIB-FWDL_START

Message

```
<switch number> Warning SULIB-FWDL_START, 3, FirmwareDownload has started.
```

Probable Cause The firmware download has started.

Recommended Action Do not fail over or power down the system during firmware download. Allow the command to continue without disruption. No action required.

Severity Warning

SWITCH_System Error Messages

Chapter 41

SWITCH messages are generated by the switch driver module that manages a Fibre Channel Switch instance.

SWITCH-SECVIOL_DCC

Message

```
<switch number> Info SWITCH-SECVIOL_DCC, 4, Security violation: Unauthorized device
<WWN> tries to flogin to port <port number>
```

Probable Cause A security violation was reported. The specified unauthorized device (specified by <*WWN*>) attempted to f log in to the specified secure port.

Recommended Action Check the Security Policy to verify that the device is allowed in the fabric. If device is allowed, add it to Security Policy and connect to the appropriate port. If device is not allowed, this is a valid security violation notification and appropriate action should be taken, as mandated by your Enterprise Security Policy.

Severity Information

SYSC_System Error Messages

Chapter 42

System Controller (SYSC) is a daemon that starts up and shuts down all FabOS modules in the proper sequence.

SYSC-ERROR

Message

```
<switch number> Critical SYSC-ERROR, 1, <error information>
```

Probable Cause The *<error information>* indicates where the source of the error is and is used for troubleshooting.

Recommended Action Copy the error message, run **hadump** and **errdump**, and contact Technical Support.

On bladed switches, run **hadump** on both CP Cards.

Severity Critical

SYSC-LAUNCHFAIL

Message

```
<switch number> Critical SYSC-ERROR, 1, Could not launch <error information>
```

Probable Cause This message is logged during the boot sequence when one of the programs would not run on the system. The *<error information>* indicates where the source of the error is and is used for troubleshooting.

Recommended Action If the message is reported during a reboot after new firmware has been loaded, try reloading the firmware.

If the problem still persists, there might be a conflict between the two versions of firmware or the flash might be corrupted. Contact Technical Support with:

- the exact error message
- the firmware version that was loaded on the switch before the error occurred
- the firmware version you are trying to load

Severity Critical

TRACK_System Error Messages

Chapter 43

The Track Change feature tracks the following events:

- Turning on or off the Track Change feature
- CONFIG_CHANGE
- LOGIN
- LOGOUT
- FAILED_LOGIN

If any of the above events occur, then a message is sent to the error log. Additionally, if the SNMP Trap option is enabled, an SNMP Trap is also sent (for more information on the Track Change feature and SNMP traps, see the Fabric OS Reference).

For information on configuring the Track Change feature, refer to the *Fabric OS Reference* or the *Fabric OS Procedures Guide*.

TRACK-CONFIG_CHANGE

Message

```
<switch number> Info TRACK-CONFIG_CHANGE, 4, Config file change from task: <task>
```

Probable Cause

The switch configuration has changed from the specified task. The following variables will be displayed in the error message:

- <*switch number*>
  For the SilkWorm 12000, might be 0 or 1.
  For the SilkWorm 3900, will be 0.
- <*task*>
  PDMIPC

Recommended Action

None. Information only; the message can be ignored. To see the new configuration, use **configshow**.

Severity

Information

TRACK-FAILED_LOGIN

Message

```
<switch number> Info TRACK-FAILED_LOGIN, 4, Unsuccessful login
```

Probable Cause Login attempt to the specified switch is unsuccessful. This might happen if the user name or password is wrong.

In the message above, the <*switch number*> variable for a SilkWorm 12000 is 0 or 1; for a SilkWorm 3900, it is 0.

Recommended Action Verify that the user name and password are correct.

Severity Information

TRACK-LOGIN

Message

```
<switch number> Info TRACK-LOGIN, 4, Successful login
```

Probable Cause The specified switch reported a successful login.

In the message above, the <*switch number*> variable for a SilkWorm 12000 is 0 or 1; for a SilkWorm 3900, it is 0.

Recommended Action None

Severity Information

TRACK-LOGOUT

Message

```
<switch number> Info TRACK-LOGOUT, 4, Successful logout
```

Probable Cause The specified switch reported a successful logout.

In the message above, the <*switch number*> variable for a SilkWorm 12000 is 0 or 1; for a SilkWorm 3900, it is 0.

Recommended Action None

Severity Information

TRACK-TRACK_OFF

Message

```
<switch number> Info TRACK-TRACK_OFF, 4, Track-changes off
```

Probable Cause

The Track Change feature has been turned off.

In the message above, the <*switch number*> variable for a SilkWorm 12000 is 0 or 1; for a SilkWorm 3900, it is 0.

Recommended Action

None. Refer to *Fabric OS Procedures Guide* to turn the Track Change feature back on.

Severity

Information

TRACK-TRACK_ON

Message

```
<switch number> Info TRACK-TRACK_ON, 4, Track-changes on
```

Probable Cause

The Track Change feature has been turned on.

In the message above, the <*switch number*> variable for a SilkWorm 12000 is 0 or 1; for a SilkWorm 3900, it is 0.

Recommended Action

None. Refer to *Fabric OS Procedures Guide* to turn the Track Change feature off.

Severity

Information

TS_System Error Messages

Chapter 44

Time Service (TS) provides fabric time synchronization by synchronizing all clocks in the fabric to the clock time on the principal switch.

TS-CLKSVRERR

Message

```
<switch number> Warning TS-CLKSVRERR, 3, <%s> Clock Server used instead of <number>:
locl: <domain> remote: <domain>
```

Probable Cause The fabric time synchronization was not distributed from the principal switch. Instead, an alternate server was used.

Recommended Action None

Severity Warning

TS-NTPQFAIL

Message

```
<switch number> Warning TS-NTPQFAIL, 3, NTP Query failed: <err code>
```

Probable Cause The NTP query to external server failed. Clock server will be set to LOCL.

Recommended Action Verify that clock server address is valid and clock server is available. If specified clock server is not available, point to an available server.

Severity Warning

TS-SEND_FAIL

Message

```
<switch number> Warning TS-SEND_FAIL, 3, <domain> Send failed with error code <error
number>.
```

Probable Cause The Time Server send failed.

Recommended Action See Fabric Watch for more information.

Severity Warning

TS-TS_SVR_ERRCODE_EXITS

Message

```
<switch number> Warning TS-CLKSVRERR, 3, <domain> Clock Server used instead of
<switch>: locl: <domain> remote: <domain>
```

Probable Cause The Time Server error code is exiting.

Recommended Action See Fabric Watch for more information.

Severity Warning

TS-TSINFO

Message

```
<switch number> Info TS-TSINFO, 4, Init failed. Time Service exiting.
```

Probable Cause Time server was started in error. Attempt failed.

Recommended Action None

Severity Information

TS-TSSVREXITS

Message

```
<switch number> Warning TS-TSSVREXITS, 3, <domain>: TS Server Exiting...
```

Probable Cause The Time Server is exiting.

Recommended Action See Fabric Watch for more information.

Severity Warning

TS-WARN

Message

```
<switch number> Warning TS-WARN, 3, <reason>
```

Probable Cause The Time Server is reporting a warning for the specified reason.

Recommended Action See Fabric Watch for more information.

Severity Warning

UCAST_System Error Messages

Chapter 45

UCAST is a part of the FSPF (Fabric Shortest Path First) protocol that manages the Unicast routing table.

UCAST-DOUBLEPATH

Message

```
<switch number> Debug UCAST-DOUBLEPATH, 5, Duplicate Path to Domain <domain ID>,
Output Port = <port number>, PDB pointer = <value>
```

Probable Cause Duplicate paths were reported to the specified domain from the specified output port. The path database (PDB) pointer is the address of the path database and provides debugging information.

Recommended Action No user action required.

Severity Debug

UPATH_System Error Messages

Chapter 46

UPATH is a part of the FSPF (Fabric Shortest Path First) protocol that uses the SPF algorithm to dynamically compute a Unicast tree.

UPATH-UNREACHABLE

Message

```
<switch number> Warning UPATH-UNREACHABLE, 3, No minimum cost path in candidate list
```

Probable Cause The specified switch <*switch number*> is unreachable because no minimum cost path (FSPF UPATH) exists in the candidate list (domain ID list).

Recommended Action This will end the current SPF computation and no user action is required.

Severity Warning

uSWD_System Error Messages

Chapter 47

The Userspace Software Watchdog (uSWD) daemon informs kSWD about which daemons the watchdog subsystem will monitor. Additionally, the uSWD daemon helps the kSWD daemon to print debug information if a Critical daemon has an unexpected termination.

uSWD-APP_NOT_REFRESH_ERR

Message

```
<switch number> Critical uSWD-APP_NOT_REFRESH_ERR, 1, (uSWD)Application with pid
<number> not refreshing watchdog.
```

Probable Cause A critical error occurred in the watchdog subsystem. An application is not able to refresh. Refer to the specified PID number to find out which application is failing. The switch will reboot (on single-CP switches) or failover (on dual-CP switches).

Recommended Action Run the **savecore** command to find if a Core File was created. If a Core File is found, FTP all Core Files or FTP marked files to customer support. Copy the error message and contact Technical Support.

Severity Critical

uSWD-uSWD_GENERIC_ERR_CRITICAL (uSWD)

Message

```
<switch number> Critical uSWD-uSWD_GENERIC_ERR_CRITICAL, 1, uSWD: <error message>
```

Probable Cause

A critical application error was reported in the watchdog subsystem. Refer to the string at the end of the error message for specific information. The switch will reboot (on single-CP switches) or failover (on dual-CP switches).

The <error message> might be any one of the following messages:

- *<swd_read_conf() Failed!>*
  Probable Cause: Unable to read the list of applications (daemons) that needs to be monitored.
- *<Opening sys module has Failed <number>>*
  Probable Cause: Internal error on device number.
- *<Can't get number of switches!>*
  Probable Cause: Internal error condition.
- *<Can't open SWD device>*
  Probable Cause: Internal error condition. Unable to open the watchdog device.
- *<Registering SCN has Failed, status = <number> error = <number>>*
  Probable Cause: Internal error condition.
- *<SWD_USER: sysModGetFd Failed<number>>*
  Probable Cause: Internal error condition.

Recommended Action

Run the **savecore** command to find if a Core File was created. If a Core File is found, FTP all Core Files or FTP marked files to customer support. Copy the error message and contact Technical Support.

Severity

Critical

ZONE_System Error Messages

Chapter 48

A zone in a fabric is a set of devices that have access to one another. All devices connected to a fabric may be configured into one or more zones. Every zone has at least one member. Empty zones are not allowed. Zoning allows partitioning of storage area network (SAN) into logical groupings of devices that access each other. Zones can be configured dynamically and can vary in size depending on the number of fabric-connected devices. Devices can also belong to more than one zone. Because zone members can access only other members of the same zone, a device not included in a zone is not available to members of that zone. When Zoning is enabled, all devices must be zoned to communicate with the fabric. These error messages indicate any problems associated with zoning.

ZONE-ALL_PORTS_ARE_OFFLINE

Message

```
<switch number> Warning ZONE-ALL_PORTS_ARE_OFFLINE, 3, WARNING - All ports are
offline.
```

Probable Cause All the ports in a zone are offline.

Recommended Action Check device connection.

Severity Warning

ZONE-DB_RESTORE_TIME

Message

```
<switch number> Info ZONE-DB_RESTORE_TIME, 4, Zone-DB size (%u) bytes. Wallclock
Restore
```

Probable Cause This message is for informational purposes only.

Recommended Action No action is required.

Severity Information

ZONE-DUPLICATE_ENTRY

Message

```
<switch number> Warning ZONE-DUPLICATE_ENTRY, 3, WARNING - Duplicate entries in
zone(zone name) specification.
```

Probable Cause Duplicate Entries in the Zone Object. A zone object member is specified more than once in any single given zone object.

Recommended Action Check the members of the zone and delete the duplicate member.

Severity Warning

ZONE-ENFORCEMIX

Message

```
<switch number> Warning ZONE-ENFORCEMIX, 3, WARNING - HARD & SOFT zones(%s, %s) def-
inition overlap.\
```

Probable Cause A port is zoned with mixed devices (WWN & Domain, Port). During zoning data base cross checking, it is detected that either

- A port zone member is also listed as a member of a MIXED zone,
- or a WWN zone member is also specified as a member of a MIXED zone.

Recommended Action If hardware zoning enforcement is preferred, edit the zoning database to have the port zoned with devices defined as WWN or defined as Port, Domain.

Severity Warning

ZONE-INCORRECT_ENFORCEMENT

Message

```
<switch number> Error ZONE-INCORRECT_ENFORCEMENT, 2, Incorrect zoning enforcement
type(zone type) at port(port number)\
```

Probable Cause An incorrect zoning enforcement type was reported on the specified port. This is a software error that should not occur.

Recommended Action Copy the message and contact Technical Support.

Severity Error

ZONE-INCORRECT_FA_CONFIG

Message

```
<switch number> Error ZONE-INCORRECT_FA_CONFIG, 2, FA Zone(zone name) contains
incorrect number of Initiator
```

Probable Cause The Fabric Assist (FA) zoning configuration has more than one initiator. The probable cause is incorrect entries in the FA Zoning configuration.

Recommended Action Edit the zone database. Make sure that only one initiator is set per FA Zone configuration.

Severity Error

ZONE-INSUFF_PID_COUNT

Message

```
<switch number> Error ZONE-INSUFF_PID_COUNT, 2, WWN (%s) converted into more than 64
PIDs. Total: (%d)
```

Probable Cause The FabOS detected a device that contains more than 64 PIDs for a single Node WWN; the detected device is zoned as a node WWN. Four is the current limit set for a multiple-port device when using Node WWN for zoning.

Recommended Action Contact Technical Support.

Severity Error

ZONE-IOCTLFAIL

Message

```
<switch number> Error ZONE-IOCTLFAIL, 2, Ioctl <function> failure in <error message>
at port <port number>: err <error string>
```

Probable Cause Frame Filter Logic reported a failure during one of the IOCTL calls. The IOCTL call from which the failure is reported, is listed as part of the error message. If this error occurs, it is due to a programming error with regard to adding CAM entries before the filter setup.

Recommended Action Copy the error message and contact Technical Support.

Severity Error

ZONE-IU_RETRY_FAIL

Message

```
<switch number> Warning ZONE-IU_RETRY_FAIL, 3, IU retry failure
```

Probable Cause Link error, the Fabric is busy, and/or remote switch failure.

Recommended Action Check the link connection, collect the information and contact Technical Support.

Severity Warning

ZONE-NOLICENSE

Message

```
<switch number> Error ZONE-NOLICENSE, 2, Missing required license - <license name>.
```

Probable Cause The required zoning license is missing.

Recommended Action Install zoning license.

Severity Error

ZONE-NOTOWNER

Message

```
<switch number> Warning ZONE-NOTOWNER, 3, Not owner of the current transaction %d
```

Probable Cause The zoning change operation is not allowed since the zoning transaction is opened by another task. There is concurrent modification of the Zoning Database by multiple administers.

Recommended Action Do not allow multiple administrators, or wait until the previous transaction is completed.

Severity Warning

ZONE-PORT_IS_OFFLINE

Message

```
<switch number> Warning ZONE-PORT_IS_OFFLINE, 3, WARNING - Port <port number> is
offline.
```

Probable Cause The specified port zone member is offline.

Recommended Action Check device connection, make sure the device is in the stable mode.

Severity Warning

ZONE-PORT_OUT_OF_RANGE

Message

```
<switch number> Warning ZONE-PORT_OUT_OF_RANGE, 3, zone <current zone> contains
<port number> which does not exist.
```

Probable Cause The port zone member that is targeted for the local switch contains a non-existent port. The effective zoning configuration (displayed in the error message) contains a port number that is out of range.

Recommended Action Edit the Zoning Database by changing the port number.

Severity Warning

ZONE-QLOOP_NOT_SUPPORTED

Message

```
<switch number> Warning ZONE-QLOOP_NOT_SUPPORTED, 3, Quick Loop not supported.
```

Probable Cause The Quick Loop feature is not supported in the current code release. If the Quick loop Zoning configuration is enabled on the switch, it will not be supported.

Recommended Action Edit the Zoning Database to remove the Quick Loop zoning definition in the Effective Zoning database.

Severity Warning

ZONE-SOFTZONING

Message

```
<switch number> Warning ZONE-SOFTZONING, 3, WARNING - port <port number> zoning
enforcement changed to SOFT
```

Probable Cause This is a general message that suggests the hardware-enforced zoning at the specified port has been turned OFF due to some exception condition. Port zoning enforcement has been changed to SOFT.

Recommended Action There are several possibilities for this message, including: *ZONEGROUPADDFAIL*, *WWNINPORT* or *ENFORCEMIX*. For more details, see the information related to those failures.

Severity Warning

ZONE-TRANS_ABORT

Message

```
<switch number> Error ZONE-TRANS_ABORT, 2, Zoning transaction aborted - <error rea-
son>
```

Probable Cause The Zoning Transaction was aborted due to a variety of potential errors: zone merge, zone config change, bad zone configuration, or other errors. The specific reason is displayed in the error message.

Recommended Action Locate and repair the bad connections or cables.

Severity Error

ZONE-TRANSCOMMIT

Message

```
<switch number> Error ZONE-TRANSCOMMIT, 2, Transaction Commit failed.  Reason code
<reason code>
```

Probable Cause RCT transmit error.

Recommended Action Collect the error information and contact Technical Support.

Severity Error

ZONE-WWNINPORT

Message

```
<switch number> Warning ZONE-WWNINPORT, 3, WARNING - WWN <WWN number> in HARD PORT
zone %s.
```

Probable Cause One or more devices are zoned as WWN (with WWN devices) and is also zoned as Port, Domain (with Port, Domain) devices. The device(s) are used to specify zone members over separate zones.

Recommended Action If hardware zoning enforcement is preferred, edit the zoning database to have the device zoned only with one type (WWN or Domain, Port).

Severity Warning

ZONE-WWNSPOOF

Message

```
<switch number> Error ZONE-WWNSPOOF, 2, WWN spoofing at (d,p)=(%d,%d) PortWWN <WWN
number>
```

Probable Cause An un-authorized device is accessing the fabric. Zoning detected a discrepancy between the frame and the information that the device registered with the Name Server during PLOGI/ADISC/DISC trap processing. The discrepancy happened within the set of information that includes device PID, port WWN and node WWN. This is considered to be a security violation and the frame is dropped.

Recommended Action Investigate which device is accessing the port.

Severity Error

ZONE-WWNZONECHECK

Message

```
<switch number> Error ZONE-WWNZONECHECK, 2, WWN zoneTypeCheck or zoneGroupCheck
failure(%s)
```

Probable Cause A Zone Filter/Zone Group Check Failure occurred. The Frame Filter Logic reported a failure when creating/adding Zone groups during PLOGI trap processing. This error should not occur. If it does, it is due to a programming error with regard to adding CAM entries before the filter setup.

Recommended Action Copy the error message and contact Technical Support.

Severity Error

ZONE-ZONEGROUPADDFAIL

Message

```
<switch number> Warning ZONE-ZONEGROUPADDFAIL, 3, WARNING - port <port number> Out
of CAM entries
```

Probable Cause The total number of entries of SID CAM for the quad exceeded 64 while creating/adding a zone group. The maximum number of CAM entities allowed for hardware zoning enforcement is 64.

Recommended Action If hardware zoning enforcement is preferred, edit the zoning database to have less zoned PIDs for that port.

Severity Warning