



Brocade Diagnostic and System Error Reference

User's Guide Version 3.1.0

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Preface

Welcome to the Diagnostic and System Error Messages manual version 3.1.0. As you will see, this manual has been completely revised and improved since the previous release (Fabric OS v3.0). Brocade believes these changes will vastly increase both the useability and the usefulness of the document.

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 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 this book was last released:

- 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 v3.1.0.
 - SLAP, ZONE error messages have been added.
- Information that was modified:
 - This manual has been reorganized to make information and error message look-up much easier for the customer.
- Information that was removed:
 - The following error message modules have been removed from this publication:
CFGLOADER, CHIPS, EM, FABSYS, FSS, HA, HAM, HAMKERNEL, HIL, kSWD, PDM, PLATFORM, PORT, SCN, SULIB.

Intended Audience

This document is intended for use by systems administrators and technicians experienced with networking, fibre channel, and SAN technologies.

Manual Conventions

Formatting

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

Convention	Purpose
bold text	<ul style="list-style-type: none">identifies command namesidentifies GUI elementsidentifies keywords/operandsidentifies text to enter at the GUI or CLI
<i>italic text</i>	<ul style="list-style-type: none">provides emphasisidentifies variablesidentifies paths and internet addressesidentifies book titles
code text	<ul style="list-style-type: none">identifies CLI outputidentifies 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 QuickLoop User's Guide (v 3.1 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.

```
*FT00X0054E9  
FT00X0054E9
```

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.

Introduction to System Error Messages

This book supports Fabric OS version 3.1.0 and contains diagnostic and system error messages with recommended actions. For ease of use, error messages are organized alphabetically, first by module 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*](#) on page 1-2
- [*Overview of the System Logs*](#) on page 1-2
- [*View or Configure System Logs*](#) on page 1-4
- [*Reading a System Error Message*](#) on page 1-5
- [*Responding to a System Error Message*](#) on page 1-8

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; 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 subsystem. 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. Messages 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, and Informational).
- 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.
- The **errdump** and **errorshow** commands display all the system error messages.

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, which 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.

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

Command	Description
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 technical 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 Advanced Web Tools

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

1. Launch Advanced 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** command to clear the System Error Log.

Example:

```
switch:admin> errclear
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	<i>Error Log Buffer Number</i>	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 <i>not</i> be used when contacting Technical Support.
Nov 03 14:11:53	<i>Date and Time</i>	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	<i>Severity Level</i>	Displays the severity of the message: Panic, Critical, Error, Warning, or Informational.
EM-CP_ERR	<i>Error Module - Error Code</i>	Displays the module name that generated the error and the code name for the error.
2	<i>Severity Level</i>	Displays the severity of the error in a numbered format. 0 = Panic 1 = Critical 2 = Error 3 = Warning 4 = Informational 5 = Debug
CP in slot 5 set to faulty because of CP ERROR	<i>Error Description</i>	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 to troubleshoot a System Error message:

1. Run **supportshow** and **pdshow** and provide the output to Technical Support for troubleshooting assistance.
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** and provide the output to Technical Support.
- Gather logs.
- Watch for reoccurrence.
- Reinstall firmware.
- Reboot machine.
- Revert to previous firmware version.
- Call Support.

AS_ System Error Messages

Alias Server provides a multi-casting 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; and 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>
```

Explanation

Memory allocation failure. Fabric OS error.

**Recommended
Action**

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

Severity

Error

Bloom_System Error Messages

BLOOM is the name of Brocade's current ASIC chip. The BLOOM error messages come from the BLOOM ASIC driver for this chip.

BLOOM-BAD_ID

Message

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

Explanation 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-BUF_RECLAIMED

Message

```
<switch number> Info BLOOM-BUF_RECLAIMED, 4, <port number>
```

Explanation If the specified port was previously disabled because no buffer was available, the port is now enabled because some buffer has been made available in the same quad.

Recommended Action No action required.

Severity Informational

BLOOM-MINI_BUFFER

Message

```
<switch number> Warning BLOOM-MINI_BUFFER, 3, <quad number>
```

Explanation Two or more bad hardware buffers are reported from the specified quad.

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-NO_BUFFERS

Message

```
<switch number> Warning BLOOM-NO_BUFFERS, 3, <port number>
```

Explanation The specified port was 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-RAMINIT_TO

Message

```
<switch number> Critical BLOOM-RAMINIT_TO, 1, <port number> <port index> failed to  
init RAM @ <offset>, busy status=<busy index>
```

Explanation RAM initialization cannot be completed within the expected time for the specified 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-STUCK_WAIT

Message

```
<switch number> Panic BLOOM-EXCESSIVE_BUSY_MINI, 0, <port number> <Loop status> <TX-  
from-RX status> busy <busy buffer value> <message string>
```

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

- *<waiting for OPEN state>*
Explanation: The specified port could not transition to the OPEN state.
- *<waiting for CLOSE state>*
Explanation: The specified port could not transition to the CLOSE state.
- *<init stuck at bloomLPC waiting for OPEN state>*
Explanation: The specified port could not transition to the OPEN state when executing the LPC command.

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

ERRLOG_System Error Messages

The Error Log subsystem collects information about the systems' 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 nonvolatile storage so the information can be retrieved and displayed later.

ERRLOG-LOGCLRDR

Message

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

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

Recommended Action No action required. Information only.

Severity Informational

ERRLOG-NV_DISABLE

Message

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

Explanation An informational message stating that the Persistent (Nonvolatile) Error Log will be disabled by the telnet command **errnvlogdisable** issued by the user.

Recommended Action No action required. Information only.

Severity Informational

ERRLOG-NV_LOG_CLRDR

Message

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

Explanation An informational message stating that the Persistent (Nonvolatile) Error Log has been cleared with the **errClear -p** command.

Recommended Action No action required. Information only.

Severity Informational

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
```

Explanation An informational message stating that the number of errors in the Persistent (Nonvolatile) Error Log has been changed and can now store *<number of errors in log>* entries. The default size is 1024. It can be resized to any value between 1024 and 2068.

Recommended Action No action required. Information only.

Severity Informational

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>
```

Explanation An informational message stating the level of error that is set to be saved in the Persistent (Nonvolatile) 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; 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

Recommended Action No action required. Information only.

Severity Informational

FABRIC_System Error Messages

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"
```

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

Recommended Action Copy error message and call Technical Support.

Severity Warning

FABRIC-NO_ALIASID

Message

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

Explanation 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>
```

Explanation The 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

FABRIC-SIZE_EXCEEDED

Message

```
<switch number> Critical FABRIC-SIZE_EXCEEDED, 1, "Critical fabric size <number of switches in fabric> exceeds configuration <number of allowed switches> Switch status marginal. Contact Technical Support."
```

Explanation Too many switches in the fabric.

Recommended Action Reduce size of fabric. Remove switches until number of switches meet supported configuration. Contact Technical Support with any questions.

Severity Critical

FABRIC-WEBTOOL_DISABLE

Message

```
<switch number> Critical FABRIC-WEBTOOL_DISABLE, 1, Webtool is disabled.
```

Explanation Web Tools is disabled until fabric size meets supported configuration.

Recommended Action Remove switches from the fabric until the fabric meets the supported configuration. Web Tools will automatically function.

Severity Critical

FABRIC-WEBTOOL_LIFE

Message

```
<switch number> Critical FABRIC-WEBTOOL_LIFE, 1, Webtool will be disabled in <number> days and <number> hours and <number> minutes
```

Explanation If the fabric size exceeds the supported configuration, then Web Tools will be disabled in the specified number of days, hours, and minutes.

Recommended Action The user must remove switches from the fabric until the fabric meets the supported configuration.

Severity Critical

FCIU_System Error Messages

FCIU stands for Fibre Channel Information Unit. The FCIU error messages are reported from the FCPH (Fibre Channel Physical and Signaling Interface) layer of code. The FCPH layers of code are FC-0, FC-1, and FC-2 of the Fibre Channel protocol.

FCIU-IUBAD

Message

```
<switch number> Debug FCIU-IUBAD, 5, invalid iu <IU pointer>
```

Explanation

An invalid IU (information unit) was reported. The *<IU Pointer>* provides a pointer to the IU causing the error message. This error message might be caused by one of the following conditions:

- NULL IU pointer
- NULL IU header pointer
- NULL IU data pointer or no IU data
- Size of the IU is larger than the memory allocation size

Recommended Action

Run the **supportshow** command to display the error message trace information that shows where the IU error message occurred. Also, copy the traceback information printed out with this error. Contact Technical Support with both sets of information.

Severity

Debug

FCIU-IUCOUNT

Message

```
<switch number> Critical FCIU-IUCOUNT, 1, count <0 iu <IU Pointer>
```

Explanation

The number of Information Units in use (allocated) are fewer than zero, but a task or application is trying to return an IU; this return is an invalid action. The *<IU Pointer>* provides a pointer to the IU causing the error message.

Recommended Action

Run the **supportshow** command to find the error message trace information to see where the IU error message occurred. Also, copy the traceback information printed out with this error. Contact Technical Support with both sets of information.

Severity

Critical

FCP_System Error Messages

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

FCP-PROBE_TIMEOUT

Message

```
<switch number> Warning FCP-PROBE_TIMEOUT, 3, AL_PA <ALPA address> on port <port number> did not respond
```

Explanation

FCP switch probes devices on loop port, and probing timed out on the specified port for the specified ALPA address.

Port number values might be 0-15; alpha arbitrated loop physical address range is any value 00 - FF.

Recommended Action

Retry action. If error persists, contact Technical Support.

Severity

Warning

FCPH_System Error Messages

Fibre Channel Physical (FCPH) layer error messages are a result of “exchange” errors. Exchanges are the exchange of information units with identification and management mechanisms, a basic “hand-shaking” between two fibre channel ports.

FCPH-EXCHBAD

Message

```
<switch number> Critical FCPH-EXCHBAD, 1, bad xid <Exchange ID>, x: <Exchange Data0>, <Exchange Data1>, <Exchange Data2>, <Exchange Data3>, <Exchange Data4>, <Exchange Data5>, <Exchange Data6> [iu: <IU Pointer>; header: <IU Header0>, <IU Header1>, <IU Header2>, <IU Header3>]
```

Explanation

A bad (invalid) exchange ID was reported.

The following information is provided in the error message:

- <Exchange Data0> - The fibre channel header exchange ID for the Originator (O) and Responder (R): format [OOOORRRR].
- <Exchange Data1> - The fibre channel source ID.
- <Exchange Data2> - The fibre channel responder ID.
- <Exchange Data3> - The exchange status flags.
- <Exchange Data4> - The physical port number.
- <Exchange Data5> - The fibre channel class of service.
- <Exchange Data6> - The receiver unsolicited registry index.
- <IU Pointer> - The pointer Information Unit.
- <IU Header0> - The fibre channel routing control bits (R)_ and destination ID (D): format [RRDDDDDD].
- <IU Header1> - The fibre channel destination ID (D) and unused bits (X): format [XXDDDDDD].
- <IU Header2> - The fibre channel header fields type (T) and frame control (F): format [TTFFFFFF].
- <IU Header3> - The fibre channel header fields sequence ID, Data Field Control, and Sequence Count.

Recommended Action

Run the **supportshow** command; the error message trace information will show where the IU error message occurred. Also, copy the traceback information printed out with this error. Contact Technical Support with both sets of information.

Severity

Critical

FCPH-EXCHFEE

Message

```
<switch number> Debug FCPH-EXCHFEE, 5, xid <Exchange ID> free, x: <Exchange Data0>,
<Exchange Data1>, <Exchange Data2>, <Exchange Data3>, <Exchange Data4>, <Exchange
Data5>, <Exchange Data6>, <Exchange Data7> iu: unknown
```

Explanation

The exchange ID has already been freed.

The following information is provided in the error message:

- <Exchange Data0> - The fibre channel header exchange ID for the Originator (O) and Responder (R): format [OOOORRRR].
- <Exchange Data1> - The fibre channel source ID.
- <Exchange Data2> - The fibre channel responder ID.
- <Exchange Data3> - The exchange status flags.
- <Exchange Data4> - The physical port number.
- <Exchange Data5> - The fibre channel class of service.
- <Exchange Data6> - The receiver unsolicited registry index.
- <IU Pointer> - The pointer Information Unit.
- <IU Header0> - The fibre channel routing control bits (R)_ and destination ID (D): format [RRDDDDDD].
- <IU Header1> - The fibre channel destination ID (D) and unused bits (X): format [XXDDDDDD].
- <IU Header2> - The fibre channel header fields type (T) and frame control (F): format [TTTTTTTT].
- <IU Header3> - The fibre channel header fields sequence ID, Data Field Control, and Sequence Count.

Recommended Action

Run the **supportshow** command; the error message trace information will show where the IU error message occurred. Also, copy the traceback information printed out with this error. Contact Technical Support with both sets of information.

Severity

Debug

FLOOD_System Error Messages

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>
```

Explanation

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>
```

Explanation

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

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
```

Explanation The specified input port number is out of range; it 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
```

Explanation 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 Informational

FSPF-REMDOMAIN

Message

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

Explanation The specified remote Domain ID is out of range.

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

Severity Error

FSPF-SCN

Message

```
<switch number> Warning FSPF-SCN, 3, Illegal SCN, port <port number>, state <state code>
```

Explanation An invalid Switch Change Notification (SCN) was reported for the specified port. The only valid SCNs are 1 (on line), 2 (off line), 3 (testing), 4 (faulty), 5 (E_Port), 6 (F_Port), 7 (segmented), and 8 (T_Port).

Recommended Action SCN will be ignored. No user action is required.

Severity Warning

FSPF-SECTION

Message

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

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

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

Severity Error

FSPF-VERSION

Message

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

Explanation 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

HLO_System Error Messages

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 timeout> from port <port number>, correct value <value>
```

Explanation

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>
```

Explanation

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>
```

Explanation 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

LSDB_System Error Messages

Link State Database (LSDB) is a part of the FSPF (Fabric Shortest Path First) 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
```

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

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

Severity Error

LSDB-MAXINCARN

Message

```
<switch number> Info LSDB-MAXINCARN, 4, Local Link State Record reached max incarnation
```

Explanation The local Link State Database reached the maximum incarnations. An informational error message.

Recommended Action The incarnation number will wrap-around and no user action is required.

Severity Informational

LSDB-NOLOCALENTRY

Message

```
<switch number> Critical LSDB-NOLOCALENTRY, 1, No database entry for local Link State Record,domain <local domain>
```

Explanation 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>
```

Explanation There is no Link State Database record for the specified local domain.

Recommended Action Perform a switch disable and enable.

Severity Warning

MCAST_System Error Messages

MCAST is the multicast portion of FSPF (see Chapter 10, *FSPF_System Error Messages* for FSPF information). These error messages cover broadcast and multicast protocol errors.

MCAST-ADDBRANCH

Message

```
<switch number> Error MCAST-ADDBRANCH, 2, Add branch failed: Mcast Grp = <group number>, Port = <port number>
```

Explanation

The add branch failed to build up a tree-like connectivity between ISL ports from a specified MCAST group.

Recommended Action

Perform a port disable and enable on <port number>.

Severity

Error

MCAST-ADDPORT

Message

```
<switch number> Warning MCAST-ADDPORT, 3, Add port failed: Mcast Grp = <group number>, Src = <port number>, Dest = <port number>
```

Explanation

The add port failed to configure a port to be a member of a specified MCAST group.

Recommended Action

Verify that the MCAST group ID is valid (0... 254).

Severity

Warning

MCAST-REMPORT

Message

```
<switch number> Warning MCAST-REMPORT, 3, Remove port failed: Mcast Grp = <group number>, Src = <port number>, Dest = port number
```

Explanation The Remove Port failed to cancel the membership of a specified MCAST group for a port.

Recommended Action Verify that the MCAST group ID is valid (0... 254).

Severity Warning

MPATH_System Error Messages

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>
```

Explanation

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>
```

Explanation

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
```

Explanation

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

Message Queues (MQ) are used for inter-process 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>
```

Explanation

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>*
err_q
fspf_q
restart_q
- *<queue ID> <message type>*

0	MSG_IU
1	MSG_SCN
2	MSG_TX
3	MSG_INTR
4	MSG_STR
5	MSG_TO
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_SENDEF
16	MSG_RDTS_RESET

Recommended Action

Run the **mqshowall** command and record the output. Provide the **mqshowall** output as well as the error message to Technical Support.

Severity Error

MQ-QREAD

Message

```
<switch number> Critical MQ-QREAD, 1, mqRead, queue = <queue name>, queue ID = <queue ID>, msg = <message ID>
```

Explanation

A read from the specified message queue was unsuccessful because there were no messages immediately available (read with no wait) or after some timeout period (read with timeout). The name of the message queue and the queue ID are indicated in this error log message.

The following variables might be displayed in the error message:

- *<queue name>*
 - as_q
 - err_q
 - diag_q
 - fabric_q
 - fspf_q
 - qloop_q
 - RDTs_q
 - zone_realtime_q
 - zone_q
 - restart_q
 - embSW_q
 - pb_q
 - fcp_q
 - rt_q
 - apims_q
 - ms_q
 - msAsync_q
 - ms2ns_q
 - ns_q
 - nsirc_q
 - tns_q
 - nscam_q
 - restart_q
 - timer_q
 - response_q
 - receive_q
 - transmit_q
 - scn_q
 - smb_q
 - snmp_agt_q
 - famib_q
 - fru_q
 - ts_q
- <queue ID>* *<message type>*
- | | |
|---|---------|
| 0 | MSG_IU |
| 1 | MSG_SCN |
| 2 | MSG_TX |

3	MSG_INTR
4	MSG_STR
5	MSG_TO
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 to Technical Support.

Severity Critical

MQ-QTHR

Message

```
<switch number> Debug MQ-QTHR, 5, mqWrite: msg threshold exceeded, queue = <queue name>, queue ID = <queue ID#>, # of msgs = <number of messages>
```

Explanation An attempt to write a message to the specified message queue has exceeded the message threshold. This indicates that messages are written to this queue faster than they are being read. The name of the message queue, the queue ID, and the number of messages currently in the queue are indicated in this error log message.

See **MQ-QREAD** to see the list of variables that might be displayed in this error message.

Recommended Action Run the **mqshowall** command and record the output. Provide the **mqshowall** output as well as the error message to Technical Support.

Severity Debug

MQ-QWRITE

Message

```
<switch number> Critical MQ-QWRITE, 1, mqWrite, queue = <queue name>, queue ID = <queue ID> msg = <message ID>, errno = <error number>
```

Explanation An attempt to write a message to a specified message queue has failed. The name of the message queue, the queue ID, the message ID, and the error number are provided in the error log message.

See **MQ-QREAD** to see the list of variables that might be displayed in this error message.

Recommended Action Run the **mqshowall** command and record the output. Provide the **mqshowall** output as well as the error message to Technical Support.

Severity Critical

MS_System Error Messages

The Management Server 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>
```

Explanation

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>
```

Explanation

The Management Server (MS) failed while initializing the specified <action>.

The following <actions> might be displayed:

- *<while writing to ms_els_q>*
Explanation: Unable to write a message to the Management Server Extended Link Service Queue.
- *<while inserting timer to timer list>*
Explanation: 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>)
```

Explanation

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>
Explanation: 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>
Explanation: 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>
Explanation: 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>
Explanation: 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>
Explanation: 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 healthy and retry fabric merge. If error recurs, contact Technical Support.
- <Security: security conflict>
Explanation: Security is currently enforced and configuration state of MS Platform Service between merging fabrics is inconsistent.
Recommended Action: Fabric might have both 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 Explanation above.

Severity

Warning

MS-PLSTATE

Message

```
<switch number> Debug MS-PLSTATE, 5, MS Platform Service Unstable(<function code>:
<message string> D= <domain number>)
```

Explanation The Management Server (MS) Platform Service is unstable.

The following variables might be displayed:

- *<function code>* invoking error
 - *<capmat>* - msPICapMatrix
 - *<CA>* - msPICondActivate
- *<message string>*
 - *<No Resp for GCAP from>*
Explanation: 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>*
Explanation: 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>*
Explanation: GCAP (MS Get Capabilities) is not supported by another switch.
Recommended Action: No action required.
 - *<Reject EXGPLDB from>*
Explanation: Request to exchange platform database was rejected. Other switch might be busy.
Recommended Action: No action required.
- *<domain number>*
Explanation: Target domain that caused error. Unique to fabric.

Recommended Action See individual *<message string>* in Explanation 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>)
```

Explanation 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>
```

Explanation The Management Server (MS) timed out while acquiring a resource.

The following is displayed as the *<error>*:

- *<acquiring elsSemaRNID lock>*

Explanation: Unable to acquire a semaphore lock for 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>
```

Explanation 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>.
```

Explanation 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>).
```

Explanation 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>*
Explanation: Domain is invalid for a request.
 - *<No WWN for>*
Explanation: Unable to acquire the World Wide Name for corresponding domain.
- *<domain number>*
Explanation: Target domain that caused error. Unique to fabric.

Recommended Action Copy error message string and contact Technical Support.

Severity Debug

NBFSM_System Error Messages

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>
```

Explanation 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>
```

Explanation The wrong input was sent to the neighbor Finite State Machine.

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 <current state name> input <state name>, port <number>
```

Explanation

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

PS_System Error Messages

The Performance Server daemon measures the amount of traffic between end points, or it measures traffic with particular frame formats, such as SCSI frames, IP frames, and customer-defined frames.

PS-ASSERT

Message

```
<switch number> Error PS-ASSERT, 2, ASSERT <#> PS: Assertion failed <expr>  
<file>:<line> Function: <function>() <argument1> <argument2> <argument3>
```

Explanation

The software assertion failed. The <#> is the number of arguments in the assertion, <expr> is the expression causing the assertion, <file> is the file name, <line> is the line number, and <function> is the function name. The <arguments 1,2,3> provide additional information about this assertion.

Recommended Action

Run the **supportshow** command, copy the error message output, and send both pieces of information to Technical Support.

Severity

Error

PS-MALLOC

Message

```
<switch number> Error PS-MALLOC, 2, malloc failed <argument 1 >
```

Explanation

The switch failed memory allocation. The information provided in <argument 1> describes where in the code the error occurred, for engineering troubleshooting.

Recommended Action

Run the **supportshow** command for further information regarding memory allocation. Copy the output and the error message and send both pieces of information to Technical Support.

Severity

Error

PS-TASKCREATE

Message

```
<switch number> Error PS-TASKCREATE , 2, PS: taskCreate() failed to create task  
<argument 1>
```

Explanation The Performance Server daemon failed to create a PSD task. The *<argument1>* provides details about this failure.

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

Severity Error

RTWR_System Error Messages

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>
```

Explanation

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
Explanation: 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 you want to allocate.
<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.
- “rtwrTask: mqRead failed”, 0, 0, 0, 0, 0
Explanation: 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
Explanation: Internal error
Recommended Action: Call Technical Support.
- “rtwrRequest: No memory”, 0, 0, 0, 0, 0
Explanation: 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 you want to allocate.
<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.

- “rtwrAsyncMultiRequest”, 0, 0, 0, 0, 0
Explanation: Internal error.
Recommended Action: Call Technical Support.
- “rtwrAsyncMultiRequest: pidlist_copy failed”, 0, 0, 0, 0, 0
Explanation: Out of memory.
Recommended Action: Check the memory usage on the switch or call Technical Support.
- “rtwrSyncRequest” , 0, 0, 0, 0, 0
Explanation: Internal error.
Recommended Action: Call Technical Support.
- “rtwrSyncRequest: Unreachable domain”, 0xff, domain, 0x9abc, domain, 0xff
Explanation: 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
Explanation: 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
Explanation: Out of memory.
Recommended Action: Check the memory usage on the switch or call Technical Support.
- “rtwrSyncRequest: semaTake failed”, 0, 0, 0, 0, 0
Explanation: Internal error.
Recommended Action: Call Technical Support.
- “rtwrMsgProcess: msg NULL”, 0, 0, 0, 0, 0
Explanation: An empty message has been received. Internal error.
Recommended Action: Call Technical Support.
- “rtwrRequestProcess: target_bm Null”, 0, 0, 0, 0, 0
Explanation: 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
Explanation: Out of memory.
Recommended Action: Check the memory usage on the switch or call Technical Support.
- “rtwrRequestProcess: rtwrMultiTransmit failed”, 0, 0, 0, 0, 0
Explanation: Transmission of payload to multiple destinations failed.
Recommended Action: Call Technical Support.
- “rtwrRespProcess”, 0, 0, 0xff, 0xff, 0xff
Explanation: Invalid pointer to payload.
Recommended Action: Call Technical Support.
- “rtwrRespProcess”, ...
Explanation: Internal error.
Recommended Action: Call Technical Support.
- ”rtwrRespProcess: release_kiu failed”, ..., 0,0
Explanation: Internal error.
Recommended Action: Call Technical Support.
-

- “rtwrTransmit: fcAsyncMultiSend failed”, 0, 0, 0, 0, 0
Explanation: 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>
```

Explanation 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
- <detail4>: Status
- <detail5>: 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

RAPID_System Error Messages

The Remote API Daemon (RAPID) is used by Fabric Access for API-related tasks.

RAPID-AUTH_ERR

Message

```
<switch number> Warning RAPID-AUTH_ERR, 3, Authentication Error: client <IP address>  
has bad credentials: <bad user name and password pair>
```

Explanation

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

RCS_System Error Messages

Reliable Commit Service (RCS) Error Messages gets 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 registered, HA State Replication ineffective
```

Explanation

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>
```

Explanation

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; then resend transaction. If this reject happens again, examine 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-RCSENABLED

Message

```
<switch number> Debug RCS-RCSENABLED, 5, RCS has been enabled.
```

Explanation The RCS feature has been enabled.

Recommended Action None required.

Severity Debug

RCS-RCSENOEMEM

Message

```
<switch number> Error RCS-RCSENOEMEM, 2, Failed to allocate memory: <function name>
```

Explanation Error: No Memory. The specified RCS function failed to allocate memory.

Recommended Action Check memory usage on the switch. Collect <function name> information provided in the message and call Technical Support.

Severity Error

RCS-RCSDISABLED

Message

```
<switch number> Debug RCS-RCSDISABLED, 5, RCS has been disabled. Some switches in the fabric do not support this feature
```

Explanation 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

SEC_System Error Messages

This section describes security errors, warnings, or information that happens during secure-related data management or fabric merge in secure mode. Administrators should pay more attention to secure fabric to distinguish between internal switch/fabric operation error or external attack. In case of external attack, administrator should react properly to stop the attack and protect the fabric securely.

SEC-RSENDFAIL

Message

```
<switch number> Error SEC-RSENDFAIL, 2, RCS process fails: %s
```

Explanation

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 either 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
```

Explanation

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 an internal error such as losing the primary public key, or it might be due to an invalid database.

Recommended Action

Issue `secFabricShow` command to verify 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-SECDFAIL

Message

```
<switch number> Warning SEC-SECDFAIL, 3, Fail to download security data to domain
<domain number> after <number of retries> retries
```

Explanation The specified domain number failed to download security data after the specified number of attempts. The primary will segment the failure switch after 30 tries. The failure 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, 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
```

Explanation The switch has an unexpected error such as low memory, queue full, failure to set password, or failure to set SNMP string.

Recommended Action Depending on the information message, you should check the status of the switch then retry the process or command. If the problem persists, contact Technical Support.

Severity Informational

SEC-SECINFORM

Message

```
<switch number> Info SEC-SECINFORM, 4, Primary FCS receives data request from domain
<domain number>
```

Explanation 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 re-sync with the rest of the switches in the fabric.

Recommended Action Check the fabric status using **secFabricShow** to verify that the fabric is not being attacked by unauthorized users.

Severity Informational

SEC-SEC_STATS

Message

```
<switch number> Warning SEC-SEC_STATS, 3, Security statistics error: %s
```

Explanation 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.
```

Explanation A security violation was reported. The specified unauthorized host attempted to establish an API connection.

Recommended Action Check to see if there is any unauthorized host accessing the switch through an API connection and take appropriate action.

Severity Informational

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.
```

Explanation A security violation was reported. The specified unauthorized host attempted to establish an HTTP connection.

Recommended Action Check to see if there is any unauthorized host accessing the switch through an API connection and take appropriate action.

Severity Informational

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.
```

Explanation A security violation was reported. The specified unauthorized host attempted to establish a Telnet connection.

Recommended Action Check to see if there is any unauthorized host accessing the switch through an API connection and take appropriate action.

Severity Informational

SECLIB_System Error Messages

Security Library is a facility used by the FabOS 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>.\
```

Explanation

A security violation was reported. The specified unauthorized device attempted to flogin 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

Informational

SECLIB-SECVIOL_LOGIN_API

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_API, 4, Security violation: Login failure
attempt via API. IP Addr: <IP address>
```

Explanation

A security violation was reported. The specified unauthorized host attempted to log in through an API connection; the login failed.

Recommended Action

Check API policy and verify that all hosts allowed to access the fabric are included in the API policy. If the host is allowed in the fabric but not included in the policy, add it to the policy.

If the host is not allowed in 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

Informational

SECLIB-SECVIOL_LOGIN_HTTP

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_HTTP, 4, Security violation: Login failure attempt via HTTP. IP Addr: <IP address>
```

Explanation A security violation was reported. The specified unauthorized device attempted to log in through an HTTP connection; the login failed.

Recommended Action Check the HTTP policy and verify that all hosts allowed access to the fabric are included in the HTTP policy. If the host is allowed in the fabric but not included in the policy, add it to the policy.

If the host is not allowed in 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 Informational

SECLIB-SECVIOL_LOGIN_MODEM

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_MODEM, 4, Security violation: Login failure attempt via Modem.
```

Explanation 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 Informational

SECLIB-SECVIOL_LOGIN_REMOTE

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_REMOTE, 4, Security violation: Login failure attempt via TELNET/SSH/RSH. IP Addr: <IP address>
```

Explanation A security violation was reported. The specified unauthorized remote device attempted to log in through a Telnet or SSH connection; the login failed.

Recommended Action Check the Telnet Policy and verify that all hosts allowed access to the fabric through Telnet/SSH are included in the Telnet Policy. If the host is allowed access to the fabric but is not included in the Telnet Policy, add it 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.

Note: Telnet Policy controls access for both Telnet and SSH connections.

Severity Informational

SECLIB-SECVIOL_LOGIN_SERIAL

Message

```
<switch number> Info SECLIB-SECVIOL_LOGIN_SERIAL, 4, Security violation: Login failure attempt via SERIAL.
```

Explanation A security violation was reported. An unauthorized device attempted to log in through a serial 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 Informational

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>.
```

Explanation 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 Informational

SECLIB-SECVIOL_MSfwrđ

Message

```
<switch number> Info SECLIB-SECVIOL_MSfwrđ, 4, Security violation: MS command is forwarded from non primary FCS switch.
```

Explanation A security violation was reported. A Management Server command was forwarded from a non-primary FCS switch.

Recommended Action No action required.

Severity Informational

SECLIB-SECVIOL_MSop

Message

```
<switch number> Info SECLIB-SECVIOL_MSop, 4, Security violation: MS device <device wwn> operates on non primary FCS switch.
```

Explanation A security violation was reported. A Management Server device is operating on a non-primary FCS switch.

Recommended Action No action required.

Severity Informational

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.
```

Explanation 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 all of the 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 not included in the RSNMP 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 Informational

SECLIB-SECVIOL_SCC

Message

```
<switch number> Info SECLIB-SECVIOL_SCC, 4, Security violation: Unauthorized switch  
<switch wwn> tries to join secure fabric.
```

Explanation 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 Informational

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.
```

Explanation 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 Informational

SLAP_System Error Messages

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 verification 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 verification 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 certificate could be a rogue switch or its certificate could be corrupt.

Severity

Warning

SWITCH_System Error Messages

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>
```

Explanation

A security violation was reported. The specified unauthorized device (specified by the <WWN>) attempted to flogin to the specified secure port.

**Recommended
Action**

Check the Security Policy to verify that the device is allowed in the fabric. If the device is allowed, add it to Security Policy and connect to the appropriate port. If the device is not allowed, this is a valid security violation notification and appropriate action should be taken as mandated in your Enterprise Security Policy.

Severity

Informational

TRACK_System Error Messages

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 Guide* or the *Fabric OS Procedures Guide*.

TRACK-CONFIG_CHANGE

Message

```
<switch number> Info TRACK-CONFIG_CHANGE, 4, Config file change from task: <task>
```

Explanation

The switch configuration has changed from the specified task. The following variables will be displayed in the error message:

- *<switch number>*
The variable is 0.
- *<task>*
PDMIPC

Task name is one of the following:

- tShell
- tErrLog
- tSwitch
- tResponse
- tPbmenu
- tPortmapd
- tFabric
- tFspf
- tRt
- tQL
- tFcph
- tRTZone
- tZone
- tFcp
- tNSd
- tASd
- tNSCAM
- tMSd
- tRapid
- tSnmpd
- tHttpD
- tRan
- tRanscn
- tMsApi
- tThad
- tFaScn
- tThFru

Recommended Action None. Information only; the message can be ignored. To see the new configuration, use **configshow**.

Severity Informational

TRACK-FAILED_LOGIN

Message

```
<switch number> Info TRACK-FAILED_LOGIN, 4, Unsuccessful login
```

Explanation Login attempt to the specified switch was unsuccessful. This might happen if the user name or password is wrong.

In the message above, <switch number> is 0.

Recommended Action Verify that the user name and password are correct.

Severity Informational

TRACK-LOGIN

Message

```
<switch number> Info TRACK-LOGIN, 4, Successful login
```

Explanation The specified switch reported a successful login.
In the message above, <switch number> is 0.

**Recommended
Action** None

Severity Informational

TRACK-LOGOUT

Message

```
<switch number> Info TRACK-LOGOUT, 4, Successful logout
```

Explanation The specified switch reported a successful logout.
In the message above, <switch number> is 0.

**Recommended
Action** None

Severity Informational

TRACK-TRACK_OFF

Message

```
<switch number> Info TRACK-TRACK_OFF, 4, Track-changes off
```

Explanation The Track Change feature has been turned off using the Telnet command **trackchangeset**.
In the message above, <switch number> is 0.

Recommended Action None. Refer to *Fabric OS Procedures Guide* to turn the Track Change feature back on.

Severity Informational

TRACK-TRACK_ON

Message

```
<switch number> Info TRACK-TRACK_ON, 4, Track-changes on
```

Explanation The Track Change feature has been turned on using the Telnet command **trackchangeset**.
In the message above, <switch number> is 0.

Recommended Action None. Refer to *Fabric OS Procedures Guide* to turn the Track Change feature off.

Severity Informational

TS_System Error Messages

Time Service 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 <%s>:  
locl: 0x<clock server code> remote: <clock server code>
```

Explanation

The local clock (LOCL) was used as the clock server when the external clock server was specified or the external clock server was used when the local clock was specified.

Recommended Action

Check that the clock server specified in the fabric is valid and correct. If not, configure the fabric with a valid clock server, local clock (LOCL) or external NTP server IP address using the **tsClockServer** command.

Severity

Information

TS-NTPQFAIL

Message

```
<switch number> Warning TS-NTPQFAIL, 3, NTP Query failed: <err code>
```

Explanation

The NTP query to the external clock server failed. Local clock (LOCL) will be used as the clock server.

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 by using the **tsClockServer** command. Network problems might have caused a temporary error; if the error does not recur, it may be ignored.

Severity

Warning

TS-TSINFO

Message

```
<switch number> Info TS-TSINFO, 4, <info message>
```

Explanation

Informational log.

Recommended Action None

Severity Informational

TS-TS_SVR_ERRCODE_EXITS

Message

```
<switch number> Warning TS-TS_SVR_ERRCODE_EXITS, 3, <reason>: <error code>. TS Server Exiting...
```

Explanation The Time Server is exiting. The reason and error code are specified in the message.

Recommended Action See Fabric Watch for more information.

Severity Warning

TS-TSSVREXITS

Message

```
<switch number> Warning TS-TSSVREXITS, 3, <reason>: TS Server Exiting...
```

Explanation The Time Server is exiting. The reason is specified in the message.

Recommended Action See Fabric Watch for more information.

Severity Warning

UCAST_System Error Messages

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>
```

Explanation

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

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
```

Explanation

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

ZONE_System Error Messages

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-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) definition 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_FA_CONFIG

Message

```
<switch number> Error ZONE-INCORRECT_FA_CONFIG, 2, FA Zone(zone name) missing correct number of Initiator and Target devices
```

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-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-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 <%s> failure in module: <%s>
```

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-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-PORT_OUT_OF_RANGE

Message

```
<switch number> Warning ZONE-PORT_OUT_OF_RANGE, 3, port <%d> non-exist or is not a F/FL-port.
```

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-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-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> NodeWWN (%s,%s)
```

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) at port (%d)
```

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

