



Emulex Driver for VMware ESX 4.x

Version 8.2.0.30.53vmw

User Manual

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Installation

Driver Information

Supported Features

- SNIA-CTP compliant SMI-S 1.1 Provider
- Topology support: Fibre Channel Arbitrated Loop (FC-AL), point-to-point, fabric with auto-topology negotiation
- Supports 1, 2, 4, 8 and 10 Gb/s capable adapters with auto-rate negotiation. (1 Gb/s is not supported on 8 Gb/s adapters.)
- Protocols: SCSI-FCP, FCP-2, FC initiator mode and Fibre Channel over Ethernet (FCoE)
- Tested up to sixteen adapter ports
- Dynamic parameter setting using Emulex's HBAnyware[®] GUI-based configuration utility version 4.0 as part of a master kit: enabling GUI-based driver configuration including out-of-band (TCP/IP) remote SAN management capability, diagnostics (loopback and diagnostics dump), logical unit number (LUN) masking and virtual port support. See the HBAnyware 4.0 Utility User Manual for a complete list of supported features.
- Support for Common HBA API
- Batch firmware download capability
- PCI hot plug support (Vendor specific)
- Vital Product Data (VPD) support
- "VMware Tools" link on the VMware portion of the Emulex Web site (visit the link to see the available tools)
- Supports N_Port ID Virtualization (NPIV) virtual ports

New Features in this Release

This is Emulex's initial release of 8.2.0.30.53vmw for ESX 4x.

Prerequisites

The following table lists the support relationship between VMware ESX releases and Emulex drivers. Refer to VMware's online Compatibility Guide for more detailed information.

Table 1: Emulex Driver Support in ESX Releases

VMware ESX Release	Emulex Driver Version
ESX 2.5.4	lpfc_7.3.2_vmw3 (4 Gb/s) provided with ESX 2.5.4 Patch 4
ESX 2.5.5	lpfc_7.3.2_vmw4 (2 and 4 Gb/s)
ESX 3.0.0	lpfc_7.1.14_vmw1 (2 Gb/s) lpfc_7.3.2_vmw1 (4 Gb/s)
ESX 3.0.1	lpfc_7.3.2_vmw2 (2 and 4 Gb/s)
ESX 3.0.2	lpfc_7.3.2_vmw4 (2 and 4 Gb/s)
ESX 3.5.0	lpfc_7.4.0.13 (2 and 4 Gb/s)
ESX 3.5 Update 1	lpfc_7.4.0.13-1 (2 and 4 Gb/s)
ESX 3.5 Update 2	lpfc_7.4.0.13-2 (2, 4, and 8 Gb/s)
Asynchronous CNA Release for ESX 3.5 Update 2	lpfc_7.4.0.31 (FCoE)
ESX 3.5 Update 4	lpfc_7.4.0.40 (2, 4, 8 Gb/s and FCoE)
ESX 4.0	lpfc_8.2.0.30.49_vmw (2, 4, 8 Gb/s and FCoE)
ESX 4.0 Update 1	lpfc_8.2.0.30.53_vmw (2, 4, 8 Gb/s and FCoE)

Compatibility

For a list of adapters that are compatible with this driver, see the driver's Downloads page on the Emulex Web site. For compatible firmware versions, see the Downloads page for the specific adapter.

Things to Know Before You Download

- There are no issues at this time.

Known Issues

- Refer to the README file located in /usr/sbin/hbanyware/README.txt for issues related to the HBAnyware and hbacmd configuration utilities.
- At times, the switch name server maintains the device name after the vport sends a LOGO. This could be misleading for administrators looking at the name server database. Some switches require an explicit DA_ID ELS command to clean up the name server database; other switches do not. Emulex provides a driver attribute called enable_da_id to address this issue if necessary.
- Boot from SAN support on the LPe12000 series adapters requires the Emulex 2.02a2 BIOS.
- For operations such as firmware download, Emulex recommends the server be brought into ESX maintenance mode prior to flashing the firmware.

Installing the Driver

The Emulex 8.2.0.30.53vmw driver is available through VMware's Support site. Refer to VMware's Support Web site for further details.

Uninstalling the Driver

See VMware's patch download page for instructions.

Installing the Utilities

Follow these instructions to install the Emulex HBAnyware configuration utility.

To install the HBAnyware Agent:

1. Log in as 'root'.
2. Copy the `elxvmwarecorekit-<kit version>.rpm` file to a directory on the install machine.
3. CD to the directory to which you copied the rpm file.
4. Install the rpm. Type:

```
rpm -U elxvmwarecorekit-esx40-<kit version>.x86_64.rpm
```

For example:

```
rpm -U elxvmwarecorekit-esx40-4.0a44-1.x86_64.rpm
```

The rpm contents and README are installed in `/usr/sbin/hbanyware`. The `hbacmd` utility is also located in this directory.

Uninstalling the Utilities

Follow these instructions to uninstall the Emulex configuration utilities.

To uninstall the HBAnyware Agent:

1. Log in as 'root'.
2. Type `"rpm -q elxvmwarecorekit"` to verify that this kit is installed. This command should list `"elxvmwarecorekit-<kit version>"` for the current release.
3. Type:

```
rpm -e elxvmwarecorekit-esx40-<kit version>
```

Configuration

Introduction

You can configure the driver parameters using native ESX tools or Emulex's HBAnyware and lputil configuration utilities. This document describes how to configure parameters using native ESX tools. For a more comprehensive description of ESX tools, refer to the vi3_server_config.pdf documentation. If you have further questions, contact a VMware technical support representative. Refer to the Emulex HBAnyware version 4.0 User Manual and the lputil User Manual for more information about those utilities.

Configuration Methods Using Native ESX Tools

There are four ways to configure the driver parameters:

- Permanently (global)
- Permanently (per adapter)
- Temporary (global)
- Temporary (per adapter)

Note: The HBAnyware utility version 4.0 also supports all four ways to configure driver parameters. This is the preferred method of setting configuration parameters. Refer to the HBAnyware 4.0 User Manual for more information.

Permanent Configuration Methods

Permanent configuration requires that the new values be saved in the ESX environment. These changes are considered permanent because they stay in effect across system reboots.

To make changes that impact all adapters in the system (global changes), follow these steps. See "Driver Configuration Parameters" on page 6 for parameter names and values. Parameter values are hexadecimal and decimal.

1. From the Console Operating System (COS) terminal window type:

```
esxcfg-module -s "param=value param2=value..." <driver_name>
```

The <driver_name> is obtained from the vmkload_mod -l call. Look for the "lpfc" prefix.
2. Rebuild the initial ram disk before rebooting:

```
esxcfg-boot -b
```
3. Reboot the server. Type:

```
reboot
```

Note: VMware does not officially support unloading the driver via vmkload_mod -u. If you must unload the driver, contact VMware technical support.

Note: NPIV port creation and deletion are performed by VMware's Infrastructure Client (VIC). Refer to the VIC documentation for more information.

Example of Permanent Global Configuration

The following example sets `lun_queue_depth` to 20 (default is 30) for all Emulex adapters in your system.

1. Locate the parameter in Table 1.
 2. Set the permanent value. Type:

```
esxcfg-module -s "lpfc_lun_queue_depth=20" <driver_name>
```
 3. Rebuild the ESX bootstrap settings. Type:

```
esxcfg-boot -b
```
 4. Reboot the server. Type:

```
reboot
```
- The new setting is used when the driver reloads.
- To verify the setting type:

```
esxcfg-module -g lpfc820
```

Example of Permanent Per Adapter Configuration

The following example sets `lun_queue_depth` to 20 (default is 30) for adapter #1.

1. Set the adapter-specific value. Type:

```
esxcfg-module -s "lpfc1_lun_queue_depth=20" <driver_name>
```
 2. Rebuild the ESX bootstrap settings. Type:

```
esxcfg-boot -b
```
 3. Reboot the server. Type:

```
reboot
```
- The new setting is used when the driver reloads.
- To verify the setting type:

```
esxcfg-module -g lpfc820
```

The following example sets `lun_queue_depth` to 20 (default is 30) for adapter #1 and `lun_queue_depth` to 10 (default is 30) for adapter #2.

1. Set the adapter-specific value. Type:

```
esxcfg-module -s "lpfc1_lun_queue_depth=20  
lpfc2_lun_queue_depth=10" <driver_name>
```

Note: Type command all on one line without a carriage return.

2. Rebuild the ESX bootstrap settings. Type:

```
esxcfg-boot -b
```
 3. Reboot the server. Type:

```
reboot
```
- The new settings are used when the driver reloads.
- To verify the settings type:

```
esxcfg-module -g lpfc820
```

Dynamically Add LUNs and Targets

For instructions on dynamically adding LUNs and targets, refer to VMware's SAN Config documentation, "Using Rescan" section.

Driver Configuration Parameters

All adapter-specific parameters have an `lpfcX_` prefix (where `X` is the driver instance number); For example, setting `lpfc0_lun_queue_depth=20` makes 20 the default number of maximum commands which can be sent to a single logical unit (disk) for `lpfc` instance 0.

Dynamic parameters do not require a system reboot for changes to take effect.

Table 2: Driver Configuration Parameters

Variable	Default	Min	Max	Dynamic	Comments
<code>lpfc_hba_queue_depth</code>	0xffff	1	0xffff	Yes	Maximum number of FCP commands that can queue to an Emulex adapter. The value cannot exceed what the adapter supports.
<code>lpfc_initiator_login</code>	0	0=Off	1=On	Yes	Enables logins to other virtual initiators.
<code>lpfc_ack0</code>	0	0=Off	1=On	No	Use ACK0 for class 2.
<code>lpfc_automap</code>	1	0=Off	1=On	No	Automatically assign SCSI IDs to FCP targets detected.
<code>lpfc_check_cond_err</code>	0	0=Off	1=On	Yes	Treat certain FCP check conditions as FCP RSP errors.
<code>lpfc_cr_count</code>	1	1	255	No	Determines the values for I/O coalescing for <code>cr_delay</code> (msec) or <code>cr_count</code> outstanding commands.
<code>lpfc_cr_delay</code>	0	0	63	No	Determines the values for I/O coalescing for <code>cr_delay</code> (msec) or <code>cr_count</code> outstanding commands.
<code>lpfc_delay_rsp_err</code>	0	0=Off	1=On	Yes	Treat FCP RSP errors like no-device-delay.
<code>lpfc_discovery_threads</code>	1	30	32	No	Specifies the maximum number of ELS commands that can be outstanding for a discovery.
<code>lpfc_enable_da_id</code>	0	0	1	No	Deregister Emulex objects registered with the NameServer.
<code>lpfc_fcp_class</code>	3	2	3	Yes	FC class for FCP data transmission.
<code>lpfc_fdmi_on</code>	0	0	2	No	False (0) if disabled. (1) or (2) if enabled depending on type of support needed.

Table 2: Driver Configuration Parameters (Continued)

Variable	Default	Min	Max	Dynamic	Comments
lpfc_link_speed	0	0=auto select 1=1 Gb/s 2=2 Gb/s 4=4 Gb/s 8=8 Gb/s		No	Sets link speed. Note: Not supported for FCoE.
lpfc_log_verbose	0x0	0x0	0xffffffff	Yes	(bit mask) Extra activity logging.
lpfc_lun_queue_depth	30	1	128	Yes	Default max commands sent to a single logical unit (disk).
lpfc_max_luns	256	1	256	Yes	Specifies the maximum number of LUNs per target. A value of 20 means LUNs from 0 to 19 are valid.
lpfc_max_vpi	0xffff	0	0xffff	No	NPIV: Maximum number of VPIs available per physical port.
lpfc_max_scscmpl_time	0	0	60000	No	Limits SCSI command completion time to control I/O queue depth. The default 0 means SCSI layer control maintains control. Value is in milliseconds.
lpfc_pci_max_read	0	0 = driver default 512 = 512 bytes 1024 = 1024 bytes 2048 = 2048 bytes 4096 = 4096 bytes		No	The maximum number of bytes transferred per pci DMA read. The default value 0 means the driver will automatically determine the correct value.
lpfc_peer_port_login	0	0	1	Yes	NPIV: Allows peer vports to log into each other.
lpfc_scan_down	1	0=Off	1=On	Yes	Select method for scanning ALPA to assign a SCSI ID.
lpfc_topology	0	0x0=loop then P2P 0x2=P2P only 0x4=loop only 0x6=P2P then loop		No	FC link topology (defaults to loop, if it fails attempts point-to-point mode). Note: Not supported for FCoE.
lpfc_use_adisc	0	0=Off	1=On	Yes	Send ADISC instead of PLOGI for device discovery or RSCN.

Creating a Fibre Channel Remote Boot Disk

For instructions on creating a Fibre Channel remote boot disk, refer to VMware's SAN Configuration Documentation, "Chapter 6, Using Boot from SAN with ESX Server Systems".

Working with Virtual Ports (Vports)

Creating, Deleting and Displaying vports

The Emulex driver for VMware supports NPIV by default. The only management API for creating and deleting a vport comes from ESX and the creation of an NPIV-enabled virtual machine. Virtual ports in the driver discover the fabric just like the physical port and are subject to the same SAN delays. As the number of vports increase, the amount of time it takes to complete remote port discovery increases as each vport executes synchronous discovery and the vports are created sequentially. If your NPIV-enabled virtual machines are configured to power-on automatically, you could experience longer delays than normal when completing the power on sequence. This is normal for NPIV virtual machines.

Note: Ensure you are using the latest recommended firmware for vport functionality. Check the Emulex Web site for the latest firmware.

Note: Loop devices and NPIV are not supported on the same port simultaneously. If you are running a loop topology and you create a vport, the vport's link state will be offline. VMware ESX only supports fabric mode.

Note: You can only create virtual ports on 4 Gb/s and 8 Gb/s adapters. You cannot create virtual ports on 1 Gb/s and 2 Gb/s adapters.

Note: The HBAnyware utility sees all vports created by the driver, but the utility has read-only access to the vports.

Troubleshooting

Introduction

There are several circumstances in which your system may operate in an unexpected manner. The Troubleshooting section explains many of these circumstances and offers one or more workarounds for each situation.

Unusual Situations and their Resolutions

General Situations

Table 3: General Driver Situations

Situation	Resolution
<p>FC link fails to come up.</p>	<p>If an FC link fails to come up, verify that an 8 Gb/s adapter is not attempting to connect to a 1 Gb/s device. Only 2, 4 and 8 Gb/s devices are supported on 8 Gb/sec adapters.</p> <p>For LP21000 adapters, ensure the adapter is not in maintenance mode and that it is not running the manufacturing firmware.</p>
<p>If a SAN configuration has 256 targets mapped by the lpfc driver, any additional added targets do not get a target ID mapping by the driver and cause target discovery to fail. Removing targets or reinitializing the link does not solve the problem.</p>	<p>Unload and reload the driver to reset available target IDs. Ensure that the SAN configuration is correct prior to rebooting the driver. This will clear the driver's consistent binding table and free target IDs for new target nodes.</p>
<p>An lspci will show recent Emulex adapters as "unknown". This is because of the delay of getting new product ID's into the VMware ESX development cycle.</p>	<p>None at this time.</p>
<p>lpfc driver fails to recognize an adapter and logs "unknown IOCB" messages in the system log during driver load. The adapter is running outdated firmware.</p>	<p>Upgrade adapter firmware to minimum supported revision listed in installation guide (or newer).</p>
<p>System panics when booted with a failed adapter installed.</p>	<p>Remove the failed adapter and reboot.</p>

Ipfc Log Messages

Introduction

Log messages are organized into logical groups based on code functionality within the Fibre Channel driver. Each group consists of a block of 100 log message numbers. Most groups require a single block of 100 message numbers, however some groups (INIT, FCP) require two blocks.

The groups and the associated number ranges are defined in the Message Log table below.

Table 4: Message Log Table

LOG Message Verbose Mask Definition	From	To	Verbose Bit	Verbose Description
LOG_ELS	0100	0199	0x1	ELS events
LOG_DISCOVERY	0200	0299	0x2	Link discovery events
LOG_SLI	0300	0399	0x800	SLI events
LOG_MBOX	0300	0339	0x4	Mailbox events
LOG_TEMP	0340	0347	0x100	Temperature sensor events
LOG_INIT	0400	0499	0x8	Initialization events
Reserved	0500	0599		
LOG_IP	0600	0699	0x20	IPFC events
LOG_FCP	0700	0799	0x40	FCP traffic history
Reserved	0800	0899		
LOG_NODE	0900	0999	0x80	Node table events
Reserved	1000	1099		
Reserved	1100	1199		
LOG_MISC LOG_FCoE	1200	1299	0x400	Miscellaneous and FCoE events
LOG_LINK_EVENT	1300	1399	0x10	Link events
Reserved	1400	1499		
Reserved	1500	1599		
LOG_LIBDFC	1600	1699	0x2000	IOCTL events

Table 4: Message Log Table (Continued)

LOG Message Verbose Mask Definition	From	To	Verbose Bit	Verbose Description
LOG_VPORT	1800	1832	0x4000	NPIV events
LOG_EVENT	1900	1999	0X10000	CT, TEMP. DUMP events
LOG_ALL_MSG	0100	1699	0xffffffff	Log all messages

Message Log Example

The following is an example of a LOG message:

```
Jul  2 04:23:34 daffy kernel: lpfc 0000:03:06.0: 0:1305 Link Down
Event x2f2 received Data: x2f2 x20 x110
```

In the above LOG message:

- lpfc 0000:03:06.0: identifies the identifies the pci location of the particular lpfc hw port.
- 0: identifies Emulex HBA0.
- 1305 identifies the LOG message number.

Note: If the word 'Data:' is present in a LOG message, any information to the right of 'Data:' is intended for Emulex technical support/engineering use only.

ELS Events (0100 - 0199)

elx_mes0100: FLOGI failure

DESCRIPTION: An ELS FLOGI command that was sent to the fabric failed.

DATA: (1) ulpStatus (2) ulpWord[4] (3) ulpTimeout

SEVERITY: Information

LOG: LOG_ELS verbose

ACTION: No action needed, informational.

elx_mes0101: FLOGI completes successfully

DESCRIPTION: An ELS FLOGI command that was sent to the fabric succeeded.

DATA: (1) ulpWord[4] (2) e_d_tov (3) r_a_tov (4) edtovResolution

SEVERITY: Information

LOG: LOG_ELS verbose

ACTION: No action needed, informational.

elx_mes0102: PLOGI completes to NPort <nlp_DID>

DESCRIPTION: The HBA performed a PLOGI into a remote NPort.

DATA: (1) ulpStatus (2) ulpWord[4] (3) ulpTimeout (4)disc (5) num_disc_nodes

SEVERITY: Information

LOG: LOG_ELS verbose

ACTION: No action needed, informational.

elx_mes0103: PRLI completes to NPort <nlp_DID>

DESCRIPTION: The HBA performed a PRLI into a remote NPort.
DATA: (1) ulpStatus (2) ulpWord[4] (3) ulpTimeout (4) num_disc_nodes
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0104: ADISC completes to NPort <nlp_DID>

DESCRIPTION: The HBA performed a ADISC into a remote NPort.
DATA: (1) ulpStatus (2) ulpWord[4] (3) ulpTimeout (4) disc (5) num_disc_nodes
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0105: LOGO completes to NPort <nlp_DID>

DESCRIPTION: The HBA performed a LOGO to a remote NPort.
DATA: (1) ulpStatus (2) ulpWord[4] (3) ulpTimeout (4) num_disc_nodes
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0106: ELS cmd tag <ulploTag> completes

DESCRIPTION: The specific ELS command was completed by the firmware.
DATA: (1) ulpStatus (2) ulpWord[4] (3) ulpTimeout
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0107: Retry ELS command <elsCmd> to remote NPORT <did>

DESCRIPTION: The driver is retrying the specific ELS command.
DATA: (1) retry (2) delay
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0108: No retry ELS command <elsCmd> to remote NPORT <did>

DESCRIPTION: The driver decided not to retry the specific ELS command that failed.
DATA: (1) retry
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0109: ACC to LOGO completes to NPort <nlp_DID>

DESCRIPTION: The driver received a LOGO from a remote NPort and successfully issued an ACC response.
DATA: (1) nlp_flag (2) nlp_state (3) nlp_rpi
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0110: ELS response tag <ulploTag> completes

DESCRIPTION: The specific ELS response was completed by the firmware.
DATA: (1) ulpStatus (2) ulpWord[4] (3) nlp_DID (4) nlp_flag (5) nlp_state (6) nlp_rpi
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0111: Dropping received ELS cmd

DESCRIPTION: The driver decided to drop an ELS Response ring entry.
DATA: (1) ulpStatus (2) ulpWord[4] (3) ulpTimeout
SEVERITY: Error
LOG: Always
ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0112: ELS command <elsCmd> received from NPORT <did>

DESCRIPTION: Received the specific ELS command from a remote NPort.
DATA: (1) hba_state
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0113: An FLOGI ELS command <elsCmd> was received from DID <did> in Loop Mode

DESCRIPTION: While in Loop Mode an unknown or unsupported ELS command was received.
DATA: None
SEVERITY: Error
LOG: Always
ACTION: Check device DID.

elx_mes0115: Unknown ELS command <elsCmd> received from NPORT <did>

DESCRIPTION: Received an unsupported ELS command from a remote NPORT.
DATA: None
SEVERITY: Error
LOG: Always
ACTION: Check remote NPORT for potential problem.

elx_mes0116: Xmit ELS command <elsCmd> to remote NPORT <did>

DESCRIPTION: Xmit ELS command to remote NPORT.
DATA: (1) icmd->ulploTag (2) hba_state
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0117: Xmit ELS response <elsCmd> to remote NPORT <did>

DESCRIPTION: Xmit ELS response to remote NPORT.
DATA: (1) icmd->ulploTag (2) size
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0118: Xmit ELS RPS ACC response tag <ulploTag>

DESCRIPTION: An RPS ACC response for the specified IO tag has been sent.
DATA:(1) ulpContext (2) nlp_DID (3) nlp_flag (4) nlp_state (5) nlp_rpi
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0120: Xmit ELS RPL ACC response tag <ulploTag>

DESCRIPTION: An RPL ACC response for the specified IO tag has been sent.
DATA:(1) ulpContext (2) nlp_DID (3) nlp_flag (4) nlp_state (5) nlp_rpi
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0125: FDISC Failed (x%x). Fabric out of resources

DESCRIPTION: The fabric rejected an FDISC because the switch can not support any more Virtual ports.
DATA: IsRjtError
SEVERITY: Error
LOG: Always
ACTION: Reconfigure the switch to support more NPIV logins. If problem persists, contact Technical Support.

elx_mes0126: FDISC failed <error> reason <error>

DESCRIPTION: The vport's fdisc failed.
DATA: None
SEVERITY: Error
LOG: Always
ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0127: ELS timeout

DESCRIPTION: An ELS IOCB command was posted to a ring and did not complete within ULP timeout seconds.
DATA: (1) elscmd (2) remote_id (3) ulpcommand (4) ulploTag
SEVERITY: Error
LOG: Always
ACTION: If no ELS command is going through the adapter, reboot the system; If problem persists, contact Technical Support.

elx_mes0128 - Xmit ELS ACC response tag <ulploTag>

DESCRIPTION: An ELS accept response for the specified IO tag has been sent.
DATA: (1) ulpContext (2) nlp_DID (3) nlp_flag (4) nlp_state (5) nlp_rpi
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes0129 - Xmit ELS RJT <rejectError> response tag <ulploTag>

DESCRIPTION: An ELS reject response with the specified error for the specified IO tag has been sent.

DATA: (1) ulpContext (2) nlp_DID (3) nlp_flag (4) nlp_state (5) nlp_rpi

SEVERITY: Information

LOG: LOG_ELS verbose

ACTION: No action needed, informational.

elx_mes0130 - Xmit ADISC ACC response tag <ulploTag>

DESCRIPTION: An ADISC ACC response for the specified IO tag has been sent.

DATA: (1) ulpContext (2) nlp_DID (3) nlp_flag (4) nlp_state (5) nlp_rpi

SEVERITY: Information

LOG: LOG_ELS verbose

ACTION: No action needed, informational.

elx_mes0131 - Xmit PRLI ACC response tag <ulploTag>

DESCRIPTION: A PRLI ACC response for the specified IO tag has been sent.

DATA: (1) ulpContext (2) nlp_DID (3) nlp_flag (4) nlp_state (5) nlp_rpi

SEVERITY: Information

LOG: LOG_ELS verbose

ACTION: No action needed, informational.

elx_mes0132 - Xmit RNID ACC response tag <ulploTag>

DESCRIPTION: A RNID ACC response for the specified IO tag has been sent.

DATA: (1) ulpContext

SEVERITY: Information

LOG: LOG_ELS verbose

ACTION: No action needed, informational.

elx_mes0134: PLOGI: cannot issue reg_login

DESCRIPTION: The REG_LOGIN following a PLOGI failed.

DATA: (1) node DID (2) node state (3) node flags (4) node rpi

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0135: PLOGI: cannot format reg_login

DESCRIPTION: The REG_LOGIN format process failed.

DATA: (1) node DID (2) node state (3) node flags (4) node rpi

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0136: PLOGI completes to NPORT <DID> with no NDLP

DESCRIPTION: A PLOGI completed without a driver NDLP node.

DATA: (1) remote DID (2) IO status (3) IO word4 (4) IoTag

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0137: No Retry ELS command <elsCmd> to remote NPORT <did>: Out of Resources: Error <error>

DESCRIPTION: The driver is not retrying an ELS command due to an error.

DATA: (1) cmd (2) did (3) IO status (4) IO word4

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0138: ELS rsp: Cannot issue reg_login for <did>

DESCRIPTION: The driver cannot issue the reg_login for a remote node

DATA: (1) remote DID (2) node flags (3) node state (4) node rpi

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0139: Ignoring ELS cmd tag <IoTag> completion

DESCRIPTION: The driver is ignoring an ELS completion during driver/vport shutdown.

DATA: (1) nlp_flag (2) nlp_state (3) nlp_rpi

SEVERITY: Information

LOG: LOG_ELS verbose

ACTION: No action needed, informational.

Link Discovery Events (0200 - 0299)

elx_mes0200: CONFIG_LINK bad hba state <hba_state>

DESCRIPTION: A CONFIG_LINK mbox command completed and the driver was not in the right state.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes0201: Abort outstanding I/O on Nport <DID>

DESCRIPTION: The driver is aborting all outstanding IO on the ELS ring.

DATA: None:

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational

elx_mes0202: Start Discovery hba state <hba_state>

DESCRIPTION: Device discovery / rediscovery after FLOGI, FAN or RSCN has started.

DATA: (1) fc_flag (2) fc_plogi_cnt (3) fc_adisc_cnt

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0203: Devloss timeout on WWPN <address> NPort <nlp_DID>

DESCRIPTION: A remote NPort that was discovered by the driver disappeared for more than lpfc_devloss_tmo seconds.

DATA: (1) nlp_flag (2) nlp_state (3) nlp_rpi

SEVERITY: Error

LOG: Always

ACTION: If the device generating this message is not a target to which the HBA is connected, this error will not affect the data integrity of the I/O between the HBA and the attached storage and can be ignored.

elx_mes0204: Devloss timeout on WWPN <address> NPort <nlp_DID>

DESCRIPTION: A remote NPort that was discovered by the driver disappeared for more than lpfc_devloss_tmo seconds.

DATA: (1) nlp_flag (2) nlp_state (3) nlp_rpi

SEVERITY: Informational

LOG: LOG_DISCOVERY verbose

ACTION: If the device generating this message is not a target to which the HBA is connected, this error will not affect the data integrity of the I/O between the HBA and the attached storage and can be ignored.

elx_mes0205: Abort outstanding I/O on NPort <Fabric_DID>

DESCRIPTION: All outstanding I/Os are cleaned up on the specified remote NPort.

DATA: (1) nlp_flag (2) nlp_state (3) nlp_rpi

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0206: Device discovery completion error

DESCRIPTION: This indicates that an incorrectable error was encountered during device (re)discovery after a link up. Fibre Channel devices will not be accessible if this message is displayed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Reboot the system. if problems persist, report these errors to Technical Support. Run with verbose mode on for more details.

elx_mes0207: Device <DID> (<WWN>) sent invalid service parameters. Ignoring device.

DESCRIPTION: Invalid service parameters were received from DID. Ignoring this remote port.

DATA: DID, WWN

SEVERITY: Error

LOG: Always

ACTION: Verify the remote port's configuration. if problems persist, report these errors to Technical Support. Run with verbose mode on for more details.

elx_mes0208: Skip <Did> NameServer Rsp

DESCRIPTION: The driver received a NameServer response.

DATA: (1) size (2) fc_flag (3) fc_rscn_id_cnt

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0209: CT request completes <ulpStatus> <ulpStatus> <CmdRsp> <CmdRsp>

DESCRIPTION: A RFT request that was sent to the fabric completed.

DATA: (1) latt (2) ulpstatus (3) cmdrsp (4) context (5) tag

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0210: Continue discovery with <num_disc_nodes> ADISCs to go

DESCRIPTION: A device discovery is in progress.

DATA: (1) fc_adisc_cnt (2) fc_flag (3) phba->hba_state

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0211: DSM in event <evt> on NPort <nlp_DID> in state <cur_state>

DESCRIPTION: The driver Discovery State Machine is processing an event.

DATA: (1) nlp_flag

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0212: DSM out state <rc> on NPort <nlp_DID>

DESCRIPTION: The driver Discovery State Machine completed processing an event.

DATA: (1) nlp_flag

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes213: DSM out state <state> on Nport free

DESCRIPTION: The discovery state machine is exiting from an unknown node.

DATA: None

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0214: RSCN received

DESCRIPTION: An RSCN ELS command was received from a fabric.

DATA: (1) fc_flag (2) payload_len (3) *lp (4) fc_rscn_id_cnt

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0215: RSCN processed

DESCRIPTION: An RSCN ELS command was received from a fabric and processed.

DATA: (1) fc_flag (2) cnt (3) fc_rscn_id_cnt (4) hba_state

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0218: FDMI Request

DESCRIPTION: The driver is sending an FDMI request to the fabric.

DATA: (1) fc_flag (2) hba_state (3) cmdcode

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0219: Ignore RSCN

DESCRIPTION: The driver received an RSCN payload ID that matched the HBA.

DATA: (1) vport flags (2) payload len (3) first did (4) RSCN ID cnt

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0220: FDMI rsp failed

DESCRIPTION: An error response was received to FDMI request.

DATA:(1) SWAP_DATA16(fdmi_cmd)

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: The fabric does not support FDMI, check fabric configuration.

elx_mes0221: FAN timeout

DESCRIPTION: A link up event was received without the login bit set, so the driver waits E_D_TOV for the Fabric to send a FAN. If no FAN is received, a FLOGI will be sent after the timeout.

DATA: None

SEVERITY: Warning

LOG: LOG_DISCOVERY verbose

ACTION: None required. The driver recovers from this condition by issuing a FLOGI to the fabric.

elx_mes0222: Initial FLOG/FDISKI timeout

DESCRIPTION: The driver sent the initial FLOGI or FDISK to the fabric and never got a response back.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Check fabric configuration. The driver recovers from this and continues with device discovery.

elx_mes0223: Timeout while waiting for NameServer login

DESCRIPTION: Our login request to the NameServer was not acknowledged within R_A_TOV.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Check the fabric configuration. The driver recovers and continues with device discovery.

elx_mes0224: NameServer Query timeout

DESCRIPTION: Node authentication timeout, node Discovery timeout. A NameServer Query to the Fabric or discovery of reported remote NPorts is not acknowledged within R_A_TOV.

DATA: (1) fc_ns_retry (2) fc_max_ns_retry

SEVERITY: Error

LOG: Always

ACTION: Check Fabric configuration. The driver recovers and continues with device discovery.

elx_mes0225: Device Discovery completes

DESCRIPTION: This indicates successful completion of device (re)discovery after a link up.

DATA: None

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0226: Device discovery completion error

DESCRIPTION: This indicates that an incorrectable error was encountered during device (re)discovery after a link up. Fibre Channel devices will not be accessible if this message is displayed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Reboot the system. If problems persist, report these errors to Technical Support. Run with verbose mode on for more details.

elx_mes0227: Node Authentication timeout

DESCRIPTION: The driver has lost track of what NPORTs are being authenticated.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: None required. The driver should recover from this event.

elx_mes0228: CLEAR LA timeout

DESCRIPTION: The driver issued a CLEAR_LA that never completed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: None required. The driver should recover from this event.

elx_mes0229: FDMI cmd <cmd> failed, latt <state> ulpStatus <status> rid <rid>

DESCRIPTION: An FDMI request completed, but there was an error.

DATA: (1) fdmi cmd (2) latt (3) IO status (4) IO word4

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0230: Unexpected timeout, hba link state <state>

DESCRIPTION: The hba link down timer expired

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0231: RSCN timeout

DESCRIPTION: The driver has lost track of what NPORTs have RSCNs pending.

DATA: (1) fc_ns_retry (2) lpfc_max_ns_retry

SEVERITY: Error

LOG: Always

ACTION: None required. The driver should recover from this event.

elx_mes0232: Continue discovery with <num_disc_nodes> PLOGIs to go

DESCRIPTION: Device discovery is in progress.

DATA: (1) fc_plogi_cnt (2) fc_flag (3) phba->hba_state

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0233: Nodelist not empty

DESCRIPTION: The driver is waiting for the nodelist to empty during cleanup

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0234: ReDiscovery RSCN

DESCRIPTION: The number / type of RSCNs has forced the driver to go to the nameserver and re-discover all NPORTs.

DATA: (1) fc_rscn_id_cnt (2) fc_flag (3) hba_state

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0235: Deferred RSCN

DESCRIPTION: The driver has received multiple RSCNs and has deferred the processing of the most recent RSCN.

DATA: (1) fc_rscn_id_cnt (2) fc_flag (3) hba_state

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0236: NameServer req

DESCRIPTION: The driver is issuing a NameServer request to the fabric.
DATA: (1) cmdcode (2) fc_flag (3) fc_rscn_id_cnt
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: No action needed, informational.

elx_mes0237: Pending Link Event during Discovery: State <hba_state>

DESCRIPTION: Received link event during discovery. Causes discovery restart.
DATA: None
SEVERITY: Warning
LOG: LOG_DISCOVERY verbose
ACTION: None required unless problem persists. If persistent check cabling.

elx_mes0238: Process <Did> NameServer Rsp

DESCRIPTION: The driver received a NameServer response.
DATA: (1) nlp_flag (2) fc_flag (3) fc_rscn_id_cnt
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: No action needed, informational.

elx_mes0239: Skip <did> Nameserver Rsp Data

DESCRIPTION: The driver is ignoring an RSCN entry
DATA: (1) vc_flag (2) fc_rscn_id_cnt
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: No action needed, informational.

elx_mes0240: NameServer Rsp Error

DESCRIPTION: The driver received a NameServer response containing a status error.
DATA: (1) CommandResponse.bits.CmdRsp (2) ReasonCode (3) Explanation (4) fc_flag
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: Check the fabric configuration. The driver recovers and continues with device discovery.

elx_mes0241: NameServer rsp error

DESCRIPTION: The driver received a NameServer response containing a status error.
DATA: (1) CommandResponse.bits.CmdRsp (2) ReasonCode (3) Explanation (4) fc_flag
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: Check the fabric configuration. The driver recovers and continues with device discovery.

elx_mes0242: Process <did> GFF NameServer Rsp Data

DESCRIPTION: The driver is processing a DID GFF response.
DATA: (1) nlp_flag (2) fc_flag (3) fc_rscn_id_cnt
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: No action needed, informational.

elx_mes0243: Skip <did> GFF_ID NameServer Rsp Data

DESCRIPTION: The driver is skipping a DID GFF ID Nameserver response entry.
DATA: (1) vc_flag (2) fc_rscn_id_cnt
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: No action needed, informational.

elx_mes0244: Issue FDMI request failed

DESCRIPTION: Cannot issue an FDMI request to the HBA.
DATA: (1) cmdcode
SEVERITY: Information
LOG: LOG_Discovery verbose
ACTION: No action needed, informational.

elx_mes0245: Skip <did> GFT_ID NameServer Rsp Data

DESCRIPTION: The driver is skipping a DID GFF ID Nameserver response entry.
DATA: (1) vc_flag (2) fc_rscn_id_cnt
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: No action needed, informational.

elx_mes0246: RegLogin failed

DESCRIPTION: The firmware returned a failure for the specified RegLogin.
DATA: (1) Did (2) mbxStatus (3) hbaState
SEVERITY: Error
LOG: Always
ACTION: This message indicates that the firmware could not perform a RegLogin for the specified Did. There may be a limitation on how many nodes the HBA can see.

elx_mes0247: Start Discovery Timer state <hba_state>

DESCRIPTION: Start the device discovery / RSCN rescue timer.
DATA: (1) tmo (2) fc_disctmo (3) fc_plogi_cnt (4) fc_adisc_cnt
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: No action needed, informational.

elx_mes0248: Cancel Discovery Timer state <hba_state>

DESCRIPTION: Cancel the device discovery / RSCN rescue timer.
DATA: (1) fc_flag (2) fc_plogi_cnt (3) fc_adisc_cnt
SEVERITY: Information
LOG: LOG_DISCOVERY verbose
ACTION: No action needed, informational.

elx_mes0249: Cannot issue Register Fabric login, Err <error>

DESCRIPTION: The driver cannot register the new fabric login with the firmware.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support

elx_mes0250: Retrying NS cmd <cmd>

DESCRIPTION: The driver is retrying an ELS command to the NameServer.

DATA: None

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0252: Cannot issue NameServer login

DESCRIPTION: The driver cannot issue a PLOGI to the Nameserver.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0253 - Illegal State Transition: node <nlp_DID> event <evt>, state <nlp_state>

DESCRIPTION: An unexpected response was received from the specified node.

DATA: (1) nlp_rpi (2) nlp_flag

SEVERITY: Error

LOG: Always

ACTION: Check connection to fabric and/or remove device. If problem persists, report the issue to Technical Support.

elx_mes0254: Register VPI: no memory

DESCRIPTION: The driver failed to allocate memory for a REG_VPI mailbox command.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0255: Issue FDISC, no IOCB.

DESCRIPTION: The driver tried to issue an FDISC, but no IOCBs were available.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0256: Issue FDISC, cannot send IOCB

DESCRIPTION: The driver tried to send an FDISC, but the issue_IOCB failed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0257: GID_FT Query error: <status> <retries>

DESCRIPTION: The GID_FT request failed with status <status> retry count <retries>

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0258: Register Fabric login error <status>

DESCRIPTION: The mailbox command to register the fabric login failed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0259: No NPIV Fabric support

DESCRIPTION: The FLOGI response indicates no NPIV support in the fabric.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0260: Register NameServer error: <status>

DESCRIPTION: The driver failed to register the Nameserver login with the firmware <status>.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support

elx_mes0261: Cannot Register NameServer login

DESCRIPTION: The driver cannot register a Nameserver login with the firmware.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support

elx_mes0262: No NPIV Fabric support

DESCRIPTION: A vport detected no NPIV support and did not send an FDISC.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0263: Discovery Mailbox error: state <state> sparam <buffer> cfmlink <buffer>

DESCRIPTION: The driver processed a link up and failed to set the state.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0264: No NPIV fabric support

DESCRIPTION: The driver could not reenable a vport - no NPIV fabric support.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0265: FAN Received.

DESCRIPTION: The driver received a FAN request and is processing it.

DATA: None

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0266: Issue NameServer Req <cmd> err <rc>

DESCRIPTION: The driver tried to issue a NameServer command and failed.

DATA: (1) fc_flag (2) fc_rscn_id_cnt

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0267: NameServer GFF Rsp <rsp> Error <status ulpword4>

DESCRIPTION: The driver detect a GFF_ID Rsp failure.

DATA: (1) fc_flag (2) fc_rscn_id_cnt

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0268: NS cmd <cmd> Error <status ulpword4>

DESCRIPTION: The driver detect a Nameserver request failure.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0269: No NameServer Entries

DESCRIPTION: The GID_FT response had no entries in it.

DATA: (1) CmdRsp (2) ReasonCode (3) Explanation (4) fc_flag

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0270: Skip <did> GFF NameServer Rsp

DESCRIPTION: The driver is skipping a DID in the GFF_ID because it's an initiator.

DATA: (1) fbits (2) fc_rscn_id_cnt

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0271: Illegal State Transition: Node <did> event <evt> state <state>

DESCRIPTION: The driver received an event on a node that was illegal for its current state.

DATA: (1) node rpi (2) node flag

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0272: Illegal PLOGI State Transition: Node <did> event <evt> state <state>

DESCRIPTION: The driver received an event on a node in state PLOGI that was illegal.

DATA: (1) node rpi (2) node flag

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0273: Unexpected discovery timeout

DESCRIPTION: The driver detected an unrecognized discovery timeout event, vport state <state>.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0274: lpfc_nlp_put: ndlp <ndlp> usgmap <nlp_usg_map> refcnt <refcount>

DESCRIPTION: The driver detected a put on a node that is transitioning to unused.

DATA: None

SEVERITY: Warning

LOG: LOG_NODE verbose

ACTION: This error could indicate a software driver. If problems persist, report these errors to Technical Support.

elx_mes0275: lpfc_nlp_put: ndlp <ndlp> usgmap <nlp_usg_map> refcnt <refcount>

DESCRIPTION: The driver detected a put on a node that is currently inactive.

DATA: None

SEVERITY: Warning

LOG: LOG_NODE verbose

ACTION: This error could indicate a software driver. If problems persist, report these errors to Technical Support.

elx_mes0276: lpfc_nlp_get: ndlp <ndlp> usgmap <nlp_usg_map> refcnt <refcount>

DESCRIPTION: The driver detected a get on a node that is currently inactive.

DATA: None

SEVERITY: Warning

LOG: LOG_NODE verbose

ACTION: This error could indicate a software driver. If problems persist, report these errors to Technical Support.

elx_mes0277: lpfc_enable_node: ndlp <ndlp> usgmap <nlp_usg_map> refcnt <refcount>

DESCRIPTION: The driver detected an enable request on a node in the free state.

DATA: None

SEVERITY: Warning

LOG: LOG_NODE verbose

ACTION: This error could indicate a software driver. If problems persist, report these errors to Technical Support.

elx_mes0278: lpfc_enable_node: ndlp <ndlp> usgmap <nlp_usg_map> refcnt <refcount>

DESCRIPTION: The driver detected an enable request on an active node.

DATA: None

SEVERITY: Warning

LOG: LOG_NODE verbose

ACTION: This error could indicate a software driver. If problems persist, report these errors to Technical Support.

elx_mes0279: lpfc_nlp_release: ndlp <ndlp> usgmap <nlp_usg_map> refcnt <refcount>

DESCRIPTION: The driver is releasing an ndlp and all resources.

DATA: None

SEVERITY: Information

LOG: LOG_NODE verbose

ACTION: No action needed, informational.

elx_mes0280: lpfc_cleanup_node: ndlp <ndlp> usgmap <nlp_usg_map> refcnt <refcount>

DESCRIPTION: The driver detected a cleanup request on a free node.

DATA: None

SEVERITY: Warning

LOG: LOG_NODE verbose

ACTION: This error could indicate a software driver. If problems persist, report these errors to Technical Support.

elx_mes0281: lpfc_cleanup_node: ndlp <ndlp> usgmap <nlp_usg_map> refcnt <refcount>

DESCRIPTION: The driver is disabling a node.

DATA: None

SEVERITY: Warning

LOG: LOG_NODE verbose

ACTION: No action needed, informational.

elx_mes0282: did <did> ndlp <ndlp> usgmap <nlp_usg_map> refcnt <refcount>

DESCRIPTION: The driver found this node pending while cleaning up a vport.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0283: Devloss timeout Skipped on WWPN <WWPN> Nport <did> Time <elapsed time>

DESCRIPTION: The driver is ignoring a second devloss timeout callback from the transport.

DATA: None

SEVERITY: Warning

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

elx_mes0284: Devloss timeout Skipped on WWPN <WWPN> Nport <did> Time <elapsed time>

DESCRIPTION: The driver is ignoring a devloss timeout callback on a mapped node.

DATA: None

SEVERITY: Information

LOG: LOG_DISCOVERY verbose

ACTION: No action needed, informational.

Mailbox Events (0300 - 0339)

elx_mes0300: ATT: Cannot issue READ_LA

DESCRIPTION: The driver detected a get on a node that is currently inactive. The driver failed to issue a READ_LA mailbox command on a LATT event.

DATA: (1) rc

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem . If problems persist, report these errors to Technical Support.

elx_mes0301: READ_SPARAM: no buffers

DESCRIPTION: The driver attempted to issue a READ_SPARAM mailbox command to the HBA, but there were no buffers available.

DATA: None

SEVERITY: Warning

LOG: LOG_MBOX verbose

ACTION: This message indicates: (1) The kernel virtual memory is depleted. Check that the system meets minimum RAM requirements for the Emulex Fibre Channel adapter. Try closing other applications to free some memory. (2) A possible driver buffer management problem. If problems persist, report these errors to Technical Support.

elx_mes0302: REG_LOGIN: no buffers

DESCRIPTION: The driver attempted to issue a REG_LOGIN mailbox command to the HBA, but there were no buffers available.

DATA: (1) Did (2) flag

SEVERITY: Warning

LOG: LOG_MBOX verbose

ACTION: This message indicates: (1) The kernel virtual memory is depleted. Check that the system meets minimum RAM requirements for the Emulex Fibre Channel adapter. Try closing other applications to free some memory. (2) A possible driver buffer management problem. If problems persist, report these errors to Technical Support.

elx_mes0303: Ring <ringno> handler: portRspPut <portRspPut> is bigger than rsp ring <portRspMax>

DESCRIPTION: The port rsp ring put index is larger than the size of the rsp ring.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver, firmware or hardware problem. Report these errors to Technical Support.

elx_mes0304: Stray mailbox interrupt, mbxCommand <mbxcommand> mbxStatus <mbxstatus>

DESCRIPTION: Received a mailbox completion interrupt and there are no outstanding mailbox commands.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0305: Mbox cmd cmpl error - RETRYing

DESCRIPTION: A mailbox command completed with an error status that causes the driver to reissue the mailbox command.

DATA: (1) mbxCommand (2) mbxStatus (3) un.varWords[0] (4) hba_state

SEVERITY: Information

LOG: LOG_MBOX verbose, LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0306: CONFIG_LINK mbxStatus error <mbxStatus> HBA state <hba_state>

DESCRIPTION: The driver issued a CONFIG_LINK mbox command to the HBA that failed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a firmware or hardware problem. Report these errors to Technical Support.

elx_mes0307: Mailbox cmd <mbxCommand> Cmpl <mbox_cmpl>

DESCRIPTION: A mailbox command completed.

DATA: (1) pmbox (2) varWords[0], (3) varWords[1], (4) varWords[2], (5) varWords[3], (6) varWords[4], (7) varWords[5], (8) varWords[6], (9) varWords[7]

SEVERITY: Information

LOG: LOG_MBOX verbose, LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0308: Mbox cmd issue - BUSY

DESCRIPTION: The driver attempted to issue a mailbox command while the mailbox was busy processing the previous command. The processing of the new command is deferred until the mailbox becomes available.

DATA: (1) mbxCommand (2) hba_state (3) sli_flag (4) flag

SEVERITY: Information

LOG: LOG_MBOX verbose, LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0309: Mailbox cmd <mbxcommand> issue

DESCRIPTION: The driver is in the process of issuing a mailbox command.

DATA: (1) hba_state (2) sli_flag (3) flag

SEVERITY: Information

LOG: LOG_MBOX verbose, LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0310: Mailbox command <mbxcommand> timeout

DESCRIPTION: A mailbox command was posted to the adapter and did not complete within 30 seconds.

DATA: (1) hba_state (2) sli_flag (3) mbox_active

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If no I/O is going through the adapter, reboot the system. If problems persist, report these errors to Technical Support.

elx_mes0311: Mailbox command <mbxcommand> cannot issue

DESCRIPTION: The driver is in the wrong state to issue the specified command.

DATA: (1) hba_state (2) sli_flag (3) flag

SEVERITY: Information

LOG: LOG_MBOX verbose, LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0312: Ring <ring> handler: portRspPut <index> is bigger than rsp ring <index_max>

DESCRIPTION: The driver detected a response ring index that is bigger than the ring maximum. This is a hard error.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0313: Ring <ringno> handler: unexpected Rctl <Rctl> Type <Type> received

DESCRIPTION: The Rctl/Type of a received frame did not match any for the configured masks for the specified ring.

DATA: None

SEVERITY: Warning

LOG: LOG_SLI verbose

ACTION: This error could indicate a software driver, firmware or hardware problem. Report these errors to Technical Support.

elx_mes0314: IOCB cmd <cmd> processed. Skipping completion

DESCRIPTION: The driver detected an idle exchange closed on the ELS ring by the port. Skipping the scsi upcall.

DATA: None

SEVERITY: Information

LOG: LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0315: Ring <ringno> issue: portCmdGet <local_getidx> is bigger then cmd ring <max_cmd_idx>

DESCRIPTION: The port cmd ring get index is greater than the size of cmd ring.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver, firmware or hardware problem. Report these errors to Technical Support.

elx_mes0316: Ring <ring> handler: unexpected ASYNC_STATUS iocb received evt_code <code>

DESCRIPTION: The driver received an asynchronous event when it has no event handler registered

DATA: None

SEVERITY: Warning

LOG: LOG_SLI verbose

ACTION: This error could indicate a software driver or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0317: iotag <ulp_loTag> is out of range: max iotag <max_iotag>

DESCRIPTION: The IoTag in the completed IOCB is out of range.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver, firmware or hardware problem. Report these errors to Technical Support.

elx_mes0318: Failed to allocate IOTAG. last IOTAG is <last_allocated_iotag>

DESCRIPTION: The driver has detected an iotag that is out of the allocated range.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This message indicates the adapter HBA I/O queue is full. Typically this happens when heavy I/O is running on a low-end (3 digit) adapter. We suggest that you upgrade to a higher-end adapter.

elx_mes0319: READ_SPARAM mbxStatus error <mbxStatus> hba state <hba_state>

DESCRIPTION: The driver issued a READ_SPARAM mbox command to the HBA that failed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a firmware or hardware problem. Report these errors to Technical Support.

elx_mes0320: CLEAR_LA mbxStatus error <mbxStatus> hba state <hba_state>

DESCRIPTION: The driver issued a CLEAR_LA mbox command to the HBA that failed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a firmware or hardware problem. Report these errors to Technical Support.

elx_mes0321: Unknown IOCB command

DESCRIPTION: Received an unknown IOCB command completion.

DATA: (1) type (2) ulpCommand (3) ulpStatus (4) ulploTag (5) ulpContext)

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0322: Ring <ringno> handler: unexpected completion IoTag <IoTag>

DESCRIPTION: The driver could not find a matching command for the completion received on the specified ring.

DATA: (1) ulpStatus (2) ulpWord[4] (3) ulpCommand (4) ulpContext

SEVERITY: Warning

LOG: LOG_SLI verbose

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0323: Unknown Mailbox command <mbxCommand> Cmpl

DESCRIPTION: A unknown mailbox command completed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver, firmware or hardware problem. Report these errors to Technical Support.

elx_mes0324: Config port initialization error, mbxCmd <mbxCommand> READ_NVPARAM, mbxStatus <mbxStatus>

DESCRIPTION: A read nvparams mailbox command failed during port configuration.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver, firmware or hardware problem. Report these errors to Technical Support.

elx_mes0325 - Reset HBA

DESCRIPTION: An HBA has been reset.

DATA: (1) hba_state (2) sli_flag

SEVERITY: Information

LOG: LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0326: Rsp Ring <ring> error: IOCB Data <data>

DESCRIPTION: The driver detected an FCP IOCB failure in polling mode.

DATA: (1) word0 (2) word1 (3) word2 (4) word3 (5) word4 (6) word5 (7) word6 (8) word7

SEVERITY: Warning

LOG: LOG_SLI verbose

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0327: Cannot abort els iocb <iocb> with tag <iotag> context <context> abort status <status> abort code <code>

DESCRIPTION: The driver failed to abort an ELS iocb - details are embedded in the message.

DATA: None

SEVERITY: Information

LOG: LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0328: Rsp Ring <ring> error: IOCB Data: <data>

DESCRIPTION: The driver failed to complete an ELS IOCB. The IOCB data follows.

DATA: (1) word0 (2) word1 (3) word3 (4) word3 (5) word4 (6) word5 (7) word6 (8) word7 (9) word8 (10) word9 (11) word10 (12) word11 (13) word12 (14) word13 (15) word14 (16) word15

SEVERITY: Warning

LOG: LOG_SLI verbose

ACTION: This error could indicate a software driver. If problems persist, report these errors to Technical Support.

elx_mes0329: Kill HBA Data <data>

DESCRIPTION: The driver received a command to kill HBA operations. This is typically a management application request necessary to start a feature set operation.

DATA: None

SEVERITY: Information

LOG: LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0330: IOCB wake NOT set

DESCRIPTION: The completion handler associated with the IOCB was never called.

DATA:(1) timeout (2) timeleft/jiffies

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver, firmware or hardware problem. If problems persist, report the error to Technical Support.

elx_mes0331: IOCB wake signaled

DESCRIPTION: The IOCB completed successfully.

DATA: None

SEVERITY: Information

LOG: LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0332: IOCB wait issue failed

DESCRIPTION: The lpfc driver failed to issue an IOCB.

DATA:(1) retval

SEVERITY: Information

LOG: LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0333: IOCB cmd <cmd> processed. Skipping completion.

DESCRIPTION: The driver detected an idle exchange closed on the FCP ring by the port. Skipping the scsi upcall.

DATA: None

SEVERITY: Information

LOG: LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0334: Unknown IOCB command

DESCRIPTION: Received an unknown IOCB command completion.

DATA: (1) type (2) ulpCommand (3) ulpStatus (4) ulploTag (5) ulpContext

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0335: Unknown IOCB command

DESCRIPTION: Received an unknown IOCB command completion.

DATA: (1) ulpCommand (2) ulpStatus (3) ulploTag (4) ulpContext

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0336 - Rsp Ring <ringno> error: IOCB

DESCRIPTION: An IOCB error has occurred on the specified ring.

DATA: (1) ulpWord[0] (2) ulpWord[1] (3) ulpWord[2] (4) ulpWord[3] (5) ulpWord[4] (6) ulpWord[5] (7) irsp+6 (8) irsp+7

SEVERITY: Warning

LOG: LOG_SLI verbose

ACTION: If problems persist, check the targets. If the targets are okay, report the error to Technical Support.

elx_mes0337 - Rsp Ring <ringno> error: IOCB

DESCRIPTION: An IOCB error has occurred on the specified ring.

DATA: (1) ulpWord[0] (2) ulpWord[1] (3) ulpWord[2] (4) ulpWord[3] (5) ulpWord[4] (6) ulpWord[5] (7) irsp+6 (8) irsp+7

SEVERITY: Warning

LOG: LOG_SLI verbose

ACTION: If problems persist, check the targets. If the targets are functioning properly, report the error to Technical Support.

elx_mes0338:IOCB wait timeout error - no wake response data

DESCRIPTION: The driver detected a get on a node that is currently inactive.

DATA: None

SEVERITY: Warning

LOG: LOG_NODE verbose

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0339: Abort XRI <xri>, original iotag <iotag1>, abort cmd iotag <iotag2>

DESCRIPTION: The driver is aborting an IOCB on exchange xri with tag iotag1. ABTS request on iotag2.

DATA: None

SEVERITY: Information

LOG: LOG_SLI verbose

ACTION: No action needed, informational.

elx_mes0341: Ring <ring> Cannot find buffer for an unsolicited iocb. tag <iotag>

DESCRIPTION: The driver is out of HBQ buffers for an unsolicited response IO. Discarding IO.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0342: Ring <ring> Cannot find buffer for an unsolicited iocb. tag <iotag>

DESCRIPTION: The driver is out of HBQ buffers for an unsolicited response IO. Discarding IO.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0343: Ring <ring> Cannot find buffer for an unsolicited iocb. tag <iotag>

DESCRIPTION: The driver is out of HBQ buffers for an unsolicited command IO. Discarding IO.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0344: Ring <ring> Cannot find buffer for an unsolicited iocb. tag <iotag>

DESCRIPTION: The driver is out of HBQ buffers for an unsolicited command IO. Discarding IO.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0345: Resetting board due to mailbox command timeout

DESCRIPTION: The driver is resetting the HBA port because a mailbox command has timed out.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0346: Ring <ring> handler: unexpected ASYNC_STATUS evt_code <evt_code>

DESCRIPTION: The driver received an asynchronous event that it did not register for.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0348: NameServer login: node freed

DESCRIPTION: The driver attempted to send a PLOGI to the Nameserver, but the node has been released.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0349: rc should be MBX_SUCCESS

DESCRIPTION: The driver issued a mailbox command from interrupt context and it failed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

Temperature Events (0340 and 0347)

elx_mes0340: Adapter temperature is OK now

DESCRIPTION: Adapter temperature has reverted to normal range.

DATA: Temperature in Celsius

SEVERITY: Error

LOG: LOG_TEMP verbose

ACTION: No action needed, informational.

elx_mes0347: Adapter is very hot, take corrective action

DESCRIPTION: Adapter temperature is above normal range

DATA: Temperature in Celsius

SEVERITY: Error

LOG: LOG_TEMP verbose

ACTION: Shutdown and remove the HBA. Contact Technical Support.

IOCB Events (0352 - 0358)

elx_mes0352: Unexpected completion on Io Tag <iotag>. IOCB not in use.

DESCRIPTION: The driver is completing an IO that is not currently outstanding.

DATA: (1) Ringno (2) ulpWord4 (3) ulpContent (4) ulpWord7

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0353: iotag <iotag> is out of range. max iotag <max_iotag> wd0 <wd0>

DESCRIPTION: The driver is completing an IO that is not currently outstanding.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0354: Release of in-use iocbq

DESCRIPTION: The driver is releasing an IOCBQ that is already released.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0355: No command IOCB slots available <host_index> <port_index>

DESCRIPTION: The driver failed to issue an IOCB because the port ring is full.

DATA: None

SEVERITY: Information

LOG: LOG_SLI

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0356: Missing IOCBQ for completion on IoTag <iotag> IOCB not in use.

DESCRIPTION: The driver is completing an IO, but the IO is not in-use.

DATA: (1) iotag (2) ulpWord0 (3) ulpWord1 (4) ulpWord2 (5) ulpWord3 (6) ulpWord4 (7) ulpWord5 (8) ulpWord6 (9) ulpWord7

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0357: Out of IOCBq buffers. Failing completion

DESCRIPTION: The driver could not get a free response IOCBQ buffer. The completion is dropped.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes0358: Found iocbq in_use set in free list

DESCRIPTION: The driver found an iocbq buffer in the freelist marked as in-use.

DATA: (1) iocbq (2) iotag (3) ulpCommand (4) ulpContext

SEVERITY: Error

LOG: Always

ACTION: The driver deliberately PSODs. This is not expected and a fatal error. Report this error to Technical Support.

Initialization Events (0400 - 0499)

elx_mes0400: Phys Attribute Count Exceeded, Max <max>, Actual <actual>

DESCRIPTION: The driver detected a driver attribute set beyond its range.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0401: Skipping DMA length set

DESCRIPTION: The driver is not setting the max pci dma read on the specified HBA.

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: No action needed if this a PCIe HBA. If PCI-X, this could indicate a problem.

elx_mes0402: Cannot find virtual addr for buffer tag on ring <ring>

DESCRIPTION: The driver cannot find the virtual address mapping to a dma buffer.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0403: lpfc_devloss_tmo attribute cannot be set to <value>, allowed range is [min, max]

DESCRIPTION: The driver detected a set on the devloss attribute as out of range.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Lower the set value to the allowable range and try again.

elx_mes0404: Only allocated <count> iocbs of expected <count> count. Unloading driver.

DESCRIPTION: The driver could not allocate all iocb's expected.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: The driver unloads. Report this issue to Technical Support.

elx_mes0405: lpfc_link_speed attribute cannot be set to <value>, allowed values are <list>

DESCRIPTION: A management entity tried to set the link speed to an unsupported value. The driver made no changes.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver error. If problems persist, report these errors to Technical Support.

elx_mes0406: Adapter maximum temperature exceeded <temp>, taking this port offline

DESCRIPTION: The driver received a critical temp event from the port and is taking the port offline.

DATA: (1) event (2) ws0 (3) ws1

SEVERITY: Error

LOG: Always

ACTION: The driver takes the port offline. Contact Technical Support.

elx_mes0407: PCB Setup

DESCRIPTION: The driver is dumping the contents of its port control block.

DATA: (1) Ring_no (2) Ciocb (3) Csize (4) Riocb (5) Rsize (6) cAddr_High (7) cAddr_Low (8) rAddr_High (9) rAddr_Low (10) IOCB Cnt (11) IOCB Bytes

SEVERITY: Informational

LOG: LOG_INIT

ACTION: None. This is informational data only.

elx_mes0410: Cannot find virtual addr for mapped buf on ring <ringno>

DESCRIPTION: The driver cannot find the specified buffer in its mapping table. Thus it cannot find the virtual address needed to access the data.

DATA: (1) phys (2) next (3) prev (4) postbufq_cnt

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware problem. If the problem persists, report these errors to Technical Support.

elx_mes0420: Enable MSI-X failed <error>, continuing with MSI

DESCRIPTION: The driver could not initialize MSI-X interrupts, trying MSI.

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: No action needed, informational.

elx_mes0421: MSI-X request_irq failed <error>, continuing with MSI

DESCRIPTION: The driver could not get an MSI-X vector, trying MSI.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a lack of OS support. If problems persist, report these errors to Technical Support.

elx_mes0423: Vport Attribute Instance Error. Defaulting lpfc_<attr> to <value>, error value <value> allowed range is <min, max>

DESCRIPTION: The driver detected an out-of-range value on a vport attribute and defaulted it to a good value.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Read the allowed range and try setting the attribute again.

elx_mes0424: Vport Attribute Count Exceeded, Max <max>, Actual <actual>

DESCRIPTION: The driver detected too many attributes in the set operations. The driver ignored all sets beyond <max>.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Check the number of parameters modified per vport.

elx_mes0425: lpfcc_<attr> attribute cannot be set to <value>, allowed range is [min, max]

DESCRIPTION: The driver detected an attribute set value that is out-of-range on the physical port.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Read the allowed range and try setting the attribute again.

elx_mes0436: Adapter failed to init, timeout, status reg <status>

DESCRIPTION: The adapter failed during powerup diagnostics after it was reset.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0437: Adapter failed to init, chipset, status reg <status>

DESCRIPTION: The adapter failed during powerup diagnostics after it was reset.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problem persist, report these errors to Technical Support.

elx_mes0438: Adapter failed to init, chipset, status reg <status>

DESCRIPTION: The adapter failed during powerup diagnostics after it was reset.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0439: Adapter failed to init, mbxCmd <mbxCommand> READ_REV, mbxStatus <mbxStatus>

DESCRIPTION: Adapter initialization failed when issuing a READ_REV mailbox command.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these error to Technical Support.

elx_mes0440: elx_mes0440: Adapter failed to init, READ_REV has missing revision information

DESCRIPTION: A firmware revision initialization error was detected.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. Update the firmware. If problems persist, report these error to Technical Support.

elx_mes0441: VPD not present on adapter, mbxCmd <mbxCommand> DUMP VPD, mbxStatus <mbxStatus>

DESCRIPTION: The DUMP_VPD mailbox command failed.

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these error to Technical Support.

elx_mes0442: Adapter failed to init, mbxCmd <mbxCommand> CONFIG_PORT, mbxStatus <mbxStatus>

DESCRIPTION: Adapter initialization failed when issuing a CONFIG_PORT mailbox command.

DATA: (1) hbainit

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these error to Technical Support.

elx_mes0443: Adapter failed to set maximum DMA length mbxStatus <status>

DESCRIPTION The driver tried to set the max DMA read transfer and failed.

DATA: (1) additional status

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0444: Firmware in SLI <sl_i_ver> mode. Max_vpi <max_vpi>

DESCRIPTION: The driver initialized the firmware into SLI<sl_i_ver> mode and has support for <max_vpi> NPIV instances.

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: No action needed, informational.

elx_mes0445: Firmware initialization failed

DESCRIPTION: The driver failed to successfully initialize the port Firmware.

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: Other log messages should be in the console log. Contact Emulex Technical Support with the console logs.

elx_mes0446: Adapter failed to init, mbxCmd <mbxCommand> CFG_RING, mbxStatus <mbxStatus>, ring <num>

DESCRIPTION: Adapter initialization failed when issuing a CFG_RING mailbox command.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0447: Adapter failed to set maximum DMA length mbxStatus <status> data <data>

DESCRIPTION: The driver tried to alter the max DMA length in HW and failed. The DMA length is not changed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver error. If problems persist, report these errors to Technical Support.

elx_mes0448: Adapter failed to init, mbxCmd <mbxCommand> READ_SPARM, mbxStatus <mbxStatus>

DESCRIPTION: Adapter initialization failed when issuing a READ_SPARM mailbox command.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0449: lpfc_%attr attribute cannot be initialized to %d, allowed range is [%min, %max]

DESCRIPTION: Sysfs attribute value written exceeds attribute range

DATA: (1) attribute name (2) value written (3) minimum value (3) maximum value

SEVERITY: Error

LOG: Always

ACTION: Write a value within the supported range.

elx_mes0450: lpfc_%attr attribute cannot be set to %d, allowed range is [%min, %max]

DESCRIPTION: Sysfs attribute value written exceeds attribute range

DATA: (1) attribute name (2) value written (3) minimum value (3) maximum value

SEVERITY: Error

LOG: Always

ACTION: Write a value within the supported range.

elx_mes0451: Enable interrupt handler failed

DESCRIPTION: The driver attempted to register the HBA interrupt service routine with the host operating system, but failed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or driver problem. If problems persist, report these errors to Technical Support.

elx_mes0452: Enable MSI failed, continuing with IRQ

DESCRIPTION: The driver could not initialize MSI mode, failing back to IRQ.

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: This could be the system behavior and is not necessarily a problem. Consult the server manual for MSI-X, MSI support.

elx_mes0453: Adapter failed to init, mbxCmd <mbxCommand> READ_CONFIG, mbxStatus <mbxStatus>

DESCRIPTION: Adapter initialization failed when issuing a READ_CONFIG mailbox command.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0454: Adapter failed to init, mbxCmd <mbxCommand> INIT_LINK, mbxStatus <mbxStatus>

DESCRIPTION: Adapter initialization failed when issuing an INIT_LINK mailbox command.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0455: Vital Product

DESCRIPTION: Vital product data (VPD) contained in the HBA flash.

DATA: (1) vpd[0] (2) vpd[1] (3) vpd[2] (4) vpd[3]

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: No action needed, informational.

elx_mes0456: Adapter failed to issue ASYNCEVT_ENABLE mbox status <status>

DESCRIPTION: The driver failed to register for async events with the port firmware.

DATA: None

SEVERITY: Error

LOG: LOG_INIT verbose

ACTION: No action needed. The driver should continue to run. Contact Technical Support.

elx_mes0457: Adapter Hardware Error

DESCRIPTION: The driver received an interrupt indicating a possible hardware problem.

Data: (1) status (2) status1 (3) status2

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a hardware or firmware problem. If problems persist, report these errors to Technical Support.

elx_mes0458: Bring adapter online

DESCRIPTION: The FC driver has received a request to bring the adapter online. This may occur when running lputil.

DATA: None

SEVERITY: Warning

LOG: LOG_INIT verbose

ACTION: None required.

elx_mes0459: Adapter heartbeat failure, taking this port offline

DESCRIPTION: The driver did not receive a heartbeat response from the port in the time allotted. The driver is taking the HBA offline.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware error. Report this error to Technical Support.

elx_mes0460: Bring adapter offline

DESCRIPTION: The FC driver has received a request to bring the adapter offline. This may occur when running lputil.

DATA: None

SEVERITY: Warning

LOG: LOG_INIT verbose

ACTION: None required.

elx_mes0461: Scanning longer than 30 seconds. Continuing initialization

DESCRIPTION: At least 30 seconds has elapsed since scsi scan started. Report scan finished to complete initialization.

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: This error could indicate a software driver, firmware or SAN error. If problems persist, report these errors to Technical Support.

elx_mes0462: Too many cmd / rsp ring entries in SLI2 SLIM

DESCRIPTION: The configuration parameter for Scan-down is out of range.

DATA: (1) totiocb (2) MAX_SLI2_IOCB

SEVERITY: Error

LOG: Always

ACTION: This is a software driver error. If this problem persists, report these errors to Technical Support.

elx_mes0463: Set maximum DMA length to x%x Success

DESCRIPTION: The driver successfully set the maximum DMA Read length in firmware.

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: No action needed, informational.

elx_mes0464: Max DMA Set failed - could not alloc memory

DESCRIPTION: The driver could not allocate memory for a DMA Read set - operation aborted.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0465: Link down longer than 15 seconds. Continuing initialization

DESCRIPTION: The driver scan logic detected a link down, report scan finished to clean up.

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: No action needed, informational.

elx_mes0466: Outstanding IO when bringing Adapter offline

DESCRIPTION: The driver has outstanding I/O still after a 5 second wait period.

DATA: None

SEVERITY: Warning

LOG: LOG_INIT verbose

ACTION: This error could indicate a software driver, firmware or hardware problem. Report these errors to Technical Support.

elx_mes0470: Enable MSI failed, continuing with IRQ

DESCRIPTION: Following a PCI slot reset, the driver could not enable MSI - failing back to IRQ

DATA: None

SEVERITY: Information

LOG: LOG_INIT verbose

ACTION: This error could indicate a system or OS error. If problems persist, report these errors to Technical Support.

elx_mes0471: Enable interrupt handler failed

DESCRIPTION: The driver tried to request an IRQ following a PCI slot reset and failed.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a system or OS error. If problems persist, report these errors to Technical Support.

elx_mes0472: PCI channel I/O permanent failure

DESCRIPTION: The driver has detected a PCI Bus error and is disabling the HBA port.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a system or OS error. If problems persist, report these errors to Technical Support.

FARP Events (0600 - 0699)

elx_mes0600: FARP-RSP received from DID <did>

DESCRIPTION: A FARP response was received.

DATA: None

SEVERITY: Information

LOG: LOG_IP verbose

ACTION: None required.

elx_mes0601: FARP-REQ received from DID <did>

DESCRIPTION: An unsolicited FARP request was received.

DATA: None

SEVERITY: Information

LOG: LOG_IP verbose

ACTION: None required.

FCP Traffic History (0700 - 0799)

elx_mes0700: Bus Reset on target <tgt_id> failed

DESCRIPTION: The scsi layer called for a bus reset and Target <tgt_id> failed its target reset.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a software driver, firmware or target error. If problems persist, report these errors to Technical Support.

elx_mes0702: Issue Target Reset to TGT <num>

DESCRIPTION: The SCSI layer detected that it needs to abort all I/O to a specific target. This results in an FCP Task Management command to abort the I/O in progress.

DATA: (1) rpi (2) flags

SEVERITY: Information

LOG: LOG_FCP verbose

ACTION: Check the state of the target in question.

elx_mes0703: Issue LUN Reset to TGT <num> LUN <num>

DESCRIPTION: The SCSI layer detected that it must abort all I/O to a specific device. This results in an FCP Task Management command to abort the I/O in progress.

DATA: (1) rpi (2) flags

SEVERITY: Information

LOG: LOG_FCP verbose

ACTION: Check the state of the device in question.

elx_mes0704: At limitation of <total> preallocated command buffers

DESCRIPTION: The maximum number of command buffers have already been allocated.

DATA: None

SEVERITY: Warning

LOG: LOG_FCP verbose

ACTION: None required.

elx_mes0705: Allocation request of <num> command buffers will exceed max of <hba_queue_depth>. Reducing allocation request to <size>

DESCRIPTION: The number of command buffers requested will exceed the maximum so a smaller quantity will be allocated.

DATA: None

SEVERITY: Warning

LOG: LOG_FCP verbose

ACTION: None required.

elx_mes0706: Failed to allocate command buffer

DESCRIPTION: There was not enough memory on the system to allocate a command buffer.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a heavily loaded system or a memory leak. If problems persist, report the error to Technical Support.

elx_mes0707: driver's buffer pool is empty, IO busied

DESCRIPTION: Resources are not available to process an I/O request. A busy status is returned.

DATA: None

SEVERITY: Information

LOG: LOG_FCP verbose

ACTION: None required.

elx_mes0708: Memory alloc error in proc handler

DESCRIPTION: The driver could not allocate needed buffer space for proc node output. No proc node data is displayed.

DATA: None

SEVERITY: Information

LOG: LOG_FCP verbose

ACTION: This error could indicate a driver low memory condition. If problems persist, report these errors to Technical Support.

elx_mes0710: Iodone <target>/<lun>cmd <cmd> error <result> SNS <lp> <lp3>

DESCRIPTION: This error indicates that the Fibre Channel driver is returning a SCSI command to the SCSI layer in error or with sense data.

DATA: (1) retry (2) resid

SEVERITY: Information

LOG: LOG_FCP verbose

ACTION: None required.

elx_mes0711: detected queue full - lun queue depth adjusted to %d

DESCRIPTION: The driver detected a queue full status on a scsi command response. New lun queue depth is reported.

DATA: (1) New lun queue depth

SEVERITY: Warning

LOG: LOG_FCP verbose

ACTION: This may indicate an oversubscribed target array. Check your SAN configuration and IO workload.

elx_mes0714: SCSI layer issued bus reset

DESCRIPTION: The SCSI layer is requesting the driver to abort all I/Os to all targets on this HBA.

DATA: (1) ret

SEVERITY: Error

LOG: Always

ACTION: Check the state of the targets in question.

elx_mes0715 - Bus Reset I/O flush failure: cnt <cnt> left <index>

DESCRIPTION: Timed out while waiting during a bus reset.

DATA: None

SEVERITY: Information

LOG: LOG_FCP verbose

ACTION: If other errors are also occurring, report this message to Technical Support.

elx_mes0716: FCP read underrun, expected <len>, residual <resid>

DESCRIPTION: An FCP device provided less data than was requested.

DATA: (1) fcpi_parm (2) cmnd[0] (3) underflow

SEVERITY: Information

LOG: LOG_FCP verbose

ACTION: None required.

elx_mes0717: FCP command <cmd> residual underrun converted to error

DESCRIPTION: The driver converted this underrun condition to an error based on the underflow field in the SCSI command.

DATA: (1) len (2) resid (3) underflow

SEVERITY: Information

LOG: LOG_FCP verbose

ACTION: None required.

elx_mes0718 - Unable to dma_map_single request_buffer: <dma_error>

DESCRIPTION: An error occurred while sending a command, and the command will be retried.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: If problems persist, report these errors to Technical Support.

elx_mes0719 - LUN Reset I/O flush failure: cnt <cnt>

DESCRIPTION: Timed out while waiting during a LUN reset.

DATA: None

SEVERITY: Information

LOG: LOG_FCP verbose

ACTION: If other errors are also occurring, report this message to Technical Support.

elx_mes0720 - FCP command <cmnd[0]> residual overrun error

DESCRIPTION: A residual overrun error has occurred while processing the specified FCP command.

DATA: (1) request_bufflen (2) resid

SEVERITY: Warning

LOG: LOG_FCP verbose

ACTION: If problems persist, check the targets for errors.

elx_mes0721: LUN Reset rport failure: msec <time wait jiffies> rdata <pointer>

DESCRIPTION: The driver issued a LUN RESET task management command but it didn't complete in the time allotted. The driver is failing the LUN RESET request.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a driver error or SAN error. If problems persist, report these errors to Technical Support.

elx_mes0729: FCP cmd <cmd> failed <target>/<lun> status: <status> result: <result>

DESCRIPTION: The specified device failed an FCP command.

DATA: (1) ulpContext (2) iotag

SEVERITY: Warning

LOG: LOG_FCP verbose

ACTION: Check the state of the target in question.

elx_mes0730: FCP command <cmd> failed: <scsi_status> SNS <Error Code> <ASC:ASCQ>

DESCRIPTION The driver detected sense data in the scsi command and marking the scsi command as failed.

DATA: (1) resp_info (2) rspResID (3) rspSnsLen (4) rspRspLen (5) rspInfo3

SEVERITY: Warning

LOG: LOG_SLI verbose

ACTION: This error could indicate a software driver or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0734: FCP read check error

DESCRIPTION: The issued FCP command returned a read check error.

DATA: (1) fcpDI (2) rspResId (3) fcpi_parm (4) cmd[0]

SEVERITY: Warning

LOG: LOG_FCP verbose

ACTION: Check the state of the target in question.

elx_mes0735: FCP Read Check Error and Underrun Data

DESCRIPTION: HBA reported under run from storage array.

DATA: (1) vpi (2) fcpDI (3) res_id (4) fcpi_parm

SEVERITY: Warning

LOG: LOG_FCP_ERROR verbose

ACTION: No action needed, informational.

elx_mes0748: Abort handler timed out waiting for abort to complete:ret <status> D <target id>
LUN <lun id>

DESCRIPTION: The abort handler timed out waiting for abort to complete.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: None required.

elx_mes0749: SCSI Layer I/O Abort Request Status <status> <tgt:lun> snum <lun serial num>

DESCRIPTION: The SCSI layer aborted a device.

DATA: (1) ret (2) id (3) lun (4) snum

SEVERITY: Warning

LOG: LOG_FCP verbose

ACTION: None required.

Node Table Events (0900 - 0999)

elx_mes0900: Cleanup node for NPort <nlp_DID>

DESCRIPTION: The driver node table entry for a remote NPort was removed.

DATA: (1) nlp_flag (2) nlp_state (3) nlp_rpi

SEVERITY: Information

LOG: LOG_NODE verbose

ACTION: None required.

elx_mes0901: FIND node DID reglogin

DESCRIPTION: The driver is searching for a node table entry, on the binding list, based on DID.

DATA: (1) ndlp (2) nlp_DID (3) nlp_flag (4) data1

SEVERITY: Information

LOG: LOG_NODE verbose

ACTION: None required.

elx_mes0902: FIND node DID prli

DESCRIPTION: The driver is searching for a node table entry, on the binding list, based on DID.

DATA: (1) ndlp (2) nlp_DID (3) nlp_flag (4) data1

SEVERITY: Information

LOG: LOG_NODE verbose

ACTION: None required.

elx_mes0903: FIND node DID npr

DESCRIPTION: The driver is searching for a node table entry, on the binding list, based on DID.

DATA: (1) ndlp (2) nlp_DID (3) nlp_flag (4) data1

SEVERITY: Information

LOG: LOG_NODE verbose

ACTION: None required.

elx_mes0904 NPort state transition x%06x, <old state -> new state>

DESCRIPTION: Nport <DID> transitioned from old_state to new_state based on an event.

DATA: None

SEVERITY: Information

LOG: LOG_NODE verbose

ACTION: No action. Informational only.

elx_mes0905: FIND node DID unused

DESCRIPTION: The driver is searching for a node table entry, on the binding list, based on DID.
DATA: (1) ndlp (2) nlp_DID (3) nlp_flag (4) data1
SEVERITY: Information
LOG: LOG_NODE verbose
ACTION: None required.

elx_mes0908: FIND node DID plogi

DESCRIPTION: The driver is searching for a node table entry, on the plogi list, based on DID.
DATA: (1) ndlp (2) nlp_DID (3) nlp_flag (4) data1
SEVERITY: Information
LOG: LOG_NODE verbose
ACTION: None required.

elx_mes0911: cmpl_unreg_vpi, mb status = <mbxstatus>

DESCRIPTION: The driver completed a VPI unregistration with status given.
DATA: None
SEVERITY: Information
LOG: LOG_NODE verbose
ACTION: No action. Informational only.

elx_mes0912: cmpl_reg_vpi, mb status = <mbxstatus>

DESCRIPTION: The driver completed a VPI registration with status given.
DATA: None
SEVERITY: Information
LOG: LOG_INIT verbose
ACTION: No action. Informational only.

elx_mes0915: Register VPI failed: <mbxstatus>

DESCRIPTION: The driver failed to register a VPI on a new vport.
DATA: None
SEVERITY: Error
LOG: Always
ACTION: This error could indicate a software driver or firmware error. If problems persist, report these errors to Technical Support.

elx_mes0929: FIND node DID unmapped

DESCRIPTION: The driver is searching for a node table entry, on the unmapped node list, based on DID.
DATA: (1) ndlp (2) nlp_DID (3) nlp_flag (4) data1
SEVERITY: Information
LOG: LOG_NODE verbose
ACTION: None required.

elx_mes0930: FIND node DID mapped

DESCRIPTION: The driver is searching for a node table entry, on the mapped node list, based on DID.
DATA: (1) ndlp (2) nlp_DID (3) nlp_flag (4) data1
SEVERITY: Information
LOG: LOG_NODE verbose
ACTION: None required.

elx_mes0931: FIND node DID adisc

DESCRIPTION: The driver is searching for a node table entry, on the binding list, based on DID.
DATA: (1) ndlp (2) nlp_DID (3) nlp_flag (4) data1
SEVERITY: Information
LOG: LOG_NODE verbose
ACTION: None required.

elx_mes0932: FIND node did <did> NOT FOUND

DESCRIPTION: The driver was searching for a node table entry based on the DID and the entry was not found.
DATA: (1) order
SEVERITY: Information
LOG: LOG_NODE verbose
ACTION: None required.

Security Events (1000 - 1099)

Elx_msg1003 Send dhchap challenge local wwpn < > local_wwpn > remote_wwpn
< remote_wwpn >

DESCRIPTION: Informational message during DHCHAP authentication challenge and response process.
DATA: (1) local_wwpn (2) remote_wwpn
SEVERITY: Information
LOG: LOG_SECURITY
ACTION: Software driver Info. Contact Technical Support for further information.

Elx_msg1005 AUTHENTICATION_FAILURE Nport:<port>

DESCRIPTION: The system detected DHCHAP authentication failure on a port.
DATA: nlp_DID
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Verify authentication settings and keys on local and remote port.

Elx_msg1006 Bad Name tag in auth message < message >

DESCRIPTION: DHCHAP Authentication process failed when invalid tag was detected.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver Error. If this problem persists, report errors to the Technical Support.

Elx_msg1007 Bad Name length in auth message < message >

DESCRIPTION: DHCHAP Authentication process failed when invalid name was detected.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1008 Bad Number of Protocols <message>

DESCRIPTION: DHCP Authentication process failed due to unexpected protocol number.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1009 Bad param type <message>

DESCRIPTION: DHCP authentication process failed when invalid protocol was detected.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1010 Bad Tag 1 <message>

DESCRIPTION: DHCP authentication process failed when bad tag was detected.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg 1011 Auth_neg no hash function chosen

DESCRIPTION: DHCP authentication process failed when an incorrect hash function was specified.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1012 Auth_negotiate Bad Tag <message>

DESCRIPTION: DHCP authentication process failed due to bad tag for auto negotiation.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg 1013 Auth_negotiate no DH_group found

DESCRIPTION: DHCP authentication process failed when incorrect or missing DH Group was detected.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1014 dhchap challenge bad name tag <message>

DESCRIPTION: DHCP authentication process failed when incorrect Challenge name tag was detected.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1015 dhchap challenge bad name length <message>

DESCRIPTION: DHCP authentication process failed due to unexpected Challenge name length.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1016 dhchap challenge Hash ID not Supported <message>

DESCRIPTION: DHCP authentication process failed due to uncorroborated Challenge Hash ID.
DATA: message
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1017 dhchap challenge could not find DH Group

DESCRIPTION: DHCP authentication process failed due to uncorroborated Challenge Group.
DATA: None
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_mes1019 Request tranid <tran_id> timed out

DESCRIPTION: A transaction with storage array could not complete due to timeout.
DATA: (1) tran_id
SEVERITY: Warning
LOG: LOG_SECURITY verbose
ACTION: Software driver warning. If this problem persists, report these errors to Technical Support.

Elx_mes1020 Dropped Message type <msg_type> to PID < fc_service_pid > : < fn > err < err >

DESCRIPTION: A netlink message was dropped due to some error. Display shows the message type, PID, service pid, function and error.
DATA: (1) msg_type (2) fc_service_pid (3) fn (4) err
SEVERITY: Warning
LOG: LOG_SECURITY
ACTION: Software driver warning. If this problem persists, report these errors to Technical Support.

Elx_mes1021 ERROR: attempted to queue security work, when no workqueue created

DESCRIPTION: Driver encountered missing queue required for processing security information.
DATA: None
SEVERITY: Error
LOG: LOG_SECURITY
ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

Elx_mes1022 Security request does not exist

DESCRIPTION: A security request operation failed because there was no match found for such request.
DATA: None
SEVERITY: Warning
LOG: LOG_SECURITY
ACTION: Software driver warning. If this problem persists, report these errors to Technical Support.

Elx_mes1023 Warning - data may have been truncated. Data: <data> reqdl: <data_len>
mesdl:<data_len>

DESCRIPTION: A security message exchange operation failed because the response was missing or unreliable.

DATA: None

SEVERITY: Warning

LOG: LOG_SECURITY

ACTION: Software driver warning. If this problem persists, report these errors to Technical Support.

Elx_msg1025 Received security config local_wwpn:< > remote_wwpn:<> mode:<> hash <>
:bidir <> dh_group<> reauth_interval <>

DESCRIPTION: Re-Authentication succeeded.

DATA: (1) local_wwpn (2) remote_wwpn (3) auth_mode (4) hash_len (5) hash_priority (6) bidirectional (7)
dh_group_len (8) dh_group_priority (9) reauth_interval

SEVERITY: Information

LOG: LOG_SECURITY

ACTION: Informational message only. If you have questions, contact Technical Support.

Elx_msg1028 Start Authentication: No buffers

DESCRIPTION: The authentication failed because some memory resources were not allocated.

DATA: None

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1029 Reauthentication Failure

DESCRIPTION: The driver encountered errors and there was a failure to re-authenticate.

DATA: None

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg 1031 Start Authentication: Get config failed

DESCRIPTION: The authentication failed due to some error during port configuration.

DATA: None

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1032 Start Authentication: get config timed out

DESCRIPTION: The node authentication was aborted because waiting for port configuration to complete,
timed out.

DATA: None

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1033 Received auth_negotiate from Nport: < nlp_DID>

DESCRIPTION: Unsolicited authentication negotiation message received from a port.

DATA: nlp_DID

SEVERITY: Warning

LOG: LOG_SECURITY

ACTION: No action, this message is informational.

Elx_msg1034 Not Expecting Challenge - Rejecting Challenge

DESCRIPTION: Unsolicited authentication challenge received from a port, was rejected.

DATA: None

SEVERITY: Warning

LOG: LOG_SECURITY

ACTION: Software driver warning. If this problem persists, report errors to the Technical Support.

Elx_msg1035 Transport ID does not match - Rejecting Challenge.

DESCRIPTION: Security Authentication failed due to contradictory Transport ID.

DATA: None

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_mag1036 Authentication transaction reject - re-auth request reason <reason> exp <explanation>

DESCRIPTION: An authentication was rejected and requested again due to reason as displayed with explanation.

DATA: (1) reason (2) explanation.

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_msg1037 Authentication transaction reject - restarting authentication, reason <reason> exp <explanation>

DESCRIPTION: An authentication process was rejected then restarted and authentication requested again due to reason as displayed with explanation.

DATA: (1) reason (2) explanation.

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver error. If this problem persists, report errors to the Technical Support

Elx_msg1038 Authentication not required by the fabric Disabled

DESCRIPTION: For a given security configuration authentication is disabled by the fabric as it not required.

DATA: None

SEVERITY: Information

LOG: LOG_SECURITY

ACTION: Informational message only. If you have questions contact Technical Support.

Elx_msg1039 Not Expecting Reply - rejecting. State <state>

DESCRIPTION: An unanticipated reply was received during authentication and was subsequently rejected.

DATA: (1) auth_state.

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver Error. If this problem persists, report errors to the Technical Support.

Elx_msg1040 Bad Reply trans_id- rejecting. Trans_id < trans_id > Expecting: < trans_id>

DESCRIPTION: Unexpected transaction id was received during authentication and was subsequently rejected.

DATA: (1) auth_state.

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver Error. If this problem persists, report errors to the Technical Support.

Elx_msg1041 Authentication Successful

DESCRIPTION: Authentication succeeded.

DATA: None

SEVERITY: Information

LOG: LOG_SECURITY

ACTION: Informational message only. If you have questions contact Technical Support.

Elx_msg1042 Re-Authentication Successful

DESCRIPTION: Re-Authentication succeeded.

DATA: None

SEVERITY: Information

LOG: LOG_SECURITY

ACTION: Informational message only. If you have questions contact Technical Support.

Elx_msg1046 Authentication Successful

DESCRIPTION: Authentication succeeded.

DATA: None

SEVERITY: Information

LOG: LOG_SECURITY

ACTION: Informational message only. If you have questions contact Technical Support.

Elx_msg1047 Re-Authentication Successful

DESCRIPTION: Re-Authentication succeeded.

DATA: None

SEVERITY: Information

LOG: LOG_SECURITY

ACTION: Informational message only. If you have questions contact Technical Support.

Elx_msg1049 Authentication is enabled but authentication service is not running

DESCRIPTION: Discovery failed because DHCHAP Authentication was enabled while no authentication service was established.

DATA: None

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Start the authentication daemon (fcauthd).

Elx_msg1050 Authentication mode is disabled, but is required by the fabric

DESCRIPTION: Discovery failed because the switch fabric required authentication, but authentication was not configured or the authentication mode for this port pair is disabled.

DATA: None

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Configure the driver to authenticate with the switch or disable authentication on the switch to this port.

Elx_msg1053 Start Authentication: Security service offline

DESCRIPTION: The authentication failed because security service was not available.

DATA: None

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver Error. If this problem persists, report errors to the Technical Support.

Elx_msg1055 Authentication parameter is disabled, but is required by the fabric

DESCRIPTION: FLOGI failed because the fabric has indicated that Authentication is required, but authentication has not yet been configured or enabled on the HBA.

DATA: None

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Configure authentication on this HBA.

Elx_msg 1056 Authentication mode is disabled, but is required by the fabric

DESCRIPTION: The discovery failed because fabric requires authentication mode but that mode is currently disabled.

DATA: None

SEVERITY: Information

LOG: LOG_SECURITY

ACTION: Informational message only. If you have questions contact the Technical Support.

Elx_msg1057 Authentication transaction reject. reason <reason> exp <explanation>

DESCRIPTION: An Authentication was rejected and requested again due to reason as displayed with explanation.

DATA: (1) reason (2) explanation

SEVERITY: Error

LOG: LOG_SECURITY

ACTION: Software driver error. If this problem persists, report errors to the Technical Support.

Elx_mes1058 Waiting for authentication service

DESCRIPTION: There was a delay when the authentication service was not initially available as expected.
DATA: None
SEVERITY: Warning
LOG: LOG_SECURITY
ACTION: Software driver warning. If this problem persists, report these errors to Technical Support.

Elx_mes1059 Authentication became available

DESCRIPTION: The authentication service came online but was not initially available as expected.
DATA: None
SEVERITY: Warning
LOG: LOG_SECURITY
ACTION: Software driver warning. If this problem persists, report these errors to Technical Support.

Miscellaneous and FCoE Events (1200 - 1299)

elx_mes1200: Xmit CT response on exchange <xri>

DESCRIPTION: The driver sent a CT response on exchange <xri> from the ioctl path.
DATA: None
SEVERITY: Information
LOG: LOG_ELS verbose
ACTION: No action needed, informational.

elx_mes1201: Failed to allocate dfc_host

DESCRIPTION: The driver attempted to add a new host to its management list and failed.
DATA: None
SEVERITY: Error
LOG: Always
ACTION: This is a fatal error, the driver will unload.

elx_mes1209: C_CT request error

DESCRIPTION: The CT response returned more data than the user buffer could hold.
DATA: (1) outdmp->flag (2) 4096
SEVERITY: Information
LOG: LOG_LIBDFC verbose
ACTION: Modify the user application issuing a CT request to allow for a larger response buffer.

elx_mes1211 genreq alloc failed\n");

DESCRIPTION: Resource allocation failure.
DATA: return code
LOG: LOG_LIBDFC
SEVERITY: Error
ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes1213 FCoE cmd overflow: off <#> + cnt <#> > cmdsz <#>

DESCRIPTION: Application has tried to read more data than originally requested.

DATA: (1) response offset (2) size (3) cmd size

LOG: LOG_LIBDFC

SEVERITY: Error

ACTION: Application may have sent a invalid command.

elx_mes1214 Can not issue FCoE cmd SLI not active: <#> rc= -EACCESS

DESCRIPTION: The SLI layer has not been initialized.

DATA: offset

LOG: LOG_LIBDFC

SEVERITY: Error

ACTION: Restart the HBA.

elx_mes1215 Can not issue FCoE cmd: not ready or not in maint mode"

DESCRIPTION: Either the external link is unplugged, link down, and the FCoE is not in maintenance mode.

DATA: (current offset) (2) return code

LOG: LOG_LIBDFC

SEVERITY: Error

ACTION: Plug external cable in or set FCoE in maintenance mode.

elx_mes1216 FCoE IOCB failed: off <#> rc <#>

DESCRIPTION: FCoE command generated by the application has failed.

DATA: (1) offset (2) return code

LOG: LOG_LIBDFC

SEVERITY: Error

ACTION: Application should retry the command.

elx_mes1223 menlo_write: couldn't alloc genreq

DESCRIPTION: Resource allocation failure.

DATA: (1) rc

LOG: LOG_LIBDFC

SEVERITY: Error

ACTION: This error could indicate a software driver problem. If problems persist, report these errors to Technical Support.

elx_mes1224 FCoE iocb failed off <#> rc=<#>",

DESCRIPTION: FCoE command failed in SLI.

DATA: (1) offset (2) return code

LOG: LOG_LIBDFC

SEVERITY: Informational.

ACTION: Retry the command, if it fails again, reset HBA when convenient.

elx_mes1230 Could not find buffer for FCoE cmd:off <#> indmp <addr> off <#>

DESCRIPTION: Could not find resources associated with this FCoE cmd.

DATA: (1) current offset (2) buffer desc pointer (3) size

LOG: LOG_LIBDFC

SEVERITY: Error

ACTION: Try reloading the driver when convenient.

elx_mes1235 Could not find buffer for FCoE cmd: off:<#> poff:<#> cnt:<#> mlascnt:<#>
addl:<x> addh:<x> mdsz:<#>

DESCRIPTION: FCoE command failed because it could not find the resource.

DATA: (1) current offset (2) previous offset (3) count (4) last count (5) address low (6) address highLOG:

LOG_LIBDFC

SEVERITY: Error

ACTION: No action needed, informational.

elx_mes1238 FCoE IOCB failed: off <#> rc=<#>

DESCRIPTION: The command generated by the driver to check the FCoE has failed.

DATA: (1) offset (2) return code

LOG: LOG_LIBDFC

SEVERITY: Error

ACTION: Make sure link is up or the adapter has set menlo in maintenance mode.

elx_mes1246 FCoE chip is running golden firmware. Update FCoE chip firmware immediately
<fw_type>

DESCRIPTION: The FCoE is running the golden firmware.

DATA: firmware-type

LOG: LOG_LINK_EVENT

Severity: Error

ACTION: Try resetting the FCoE to operational mode and disable maintenance mode.

elx_mes1247 FCoE chip is running diagnostic firmware. Operational use suspended.
<fw_type>

DESCRIPTION: The FCoE is running a diagnostic.

DATA: firmware-type

LOG: LOG_LINK_EVENT

Severity: Error

ACTION: Try resetting the FCoE to operational mode.

elx_mes1248 FCoE chip is running unknown firmware. <fw_type>

DESCRIPTION: The FCoE is running a unknown.

DATA: firmware-type

LOG: LOG_LINK_EVENT

Severity: Error

ACTION: Try resetting the FCoE to operational mode. Try loading latest FCoE firmware.

elx_mes1249 Invalid FRU data found on adapter. Return adapter to Emulex for repair.

DESCRIPTION: The FRU data on the FCoE chip is invalid.

DATA: firmware-type

LOG: LOG_LINK_EVENT

Severity: Error

ACTION: Try resetting the FCoE to operational mode. Try loading latest FCoE firmware or send the HBA back to Emulex for repair.

elx_mes1250 Menlo command error. code=<#>

DESCRIPTION: The IOCB driver sent to check FCoE state has bad header size.

DATA: return code

LOG: LOG_LINK_EVENT

Severity: Error

ACTION: Try resetting the FCoE to operational mode.

elx_mes1251 Menlo command error. code=<#>

DESCRIPTION: The IOCB driver sent to check FCoE state has failed, no resources.

DATA: return code

LOG: LOG_LINK_EVENT

Severity: Error

ACTION: Try resetting the FCoE to operational mode.

elx_mes1252 Menlo command error. code=<#>

DESCRIPTION: The IOCB driver sent to check FCoE state has failed.

DATA: return code

LOG: LOG_LINK_EVENT

Severity: Error

ACTION: Try resetting the FCoE to operational mode.

Link Events (1300 - 1399)

elx_mes1300:Link Down Event in loop back mode event received

DESCRIPTION: The driver was in loopback mode when a Link Down event occurred.

DATA: (1) event (2) ws0 (3) ws1

SEVERITY: Error

LOG: Always

ACTION: The driver takes the port offline. Contact Technical Support.

elx_mes1301: Re-establishing Link

DESCRIPTION: The driver detected a condition in which it had to re-initialize the link.

DATA: (1) status (2) status1 (3) status2

SEVERITY: Information

LOG: LOG_LINK_EVENT verbose

ACTION: If numerous link events are occurring, check the physical connections to the Fibre Channel network.

elx_mes1302: Invalid speed for this board: Reset link speed to auto: <cfg_link_speed>

DESCRIPTION: The driver is reinitializing the link speed to auto-detect.

DATA: None

SEVERITY: Warning

LOG: LOG_LINK_EVENT verbose

ACTION: None required.

elx_mes1303: Link Up Event <eventTag> received

DESCRIPTION: A link up event was received. It is also possible for multiple link events to be received together.

DATA:(1) fc_eventTag (2) granted_AL_PA (3) UlnkSpeed (4) alpa_map[0]

Detail: If link events received, log (1) last event number received, (2) ALPA granted, (3) Link speed (4) number of entries in the loop init LILP ALPA map. An ALPA map message is also recorded if LINK_EVENT verbose mode is set. Each ALPA map message contains 16 ALPAs.

SEVERITY: Error

LOG: Always

ACTION: If numerous link events are occurring, check the physical connections to the Fibre Channel network.

elx_mes1304: Link Up Event ALPA map

DESCRIPTION: A link up event was received.

DATA: (1) wd1 (2) wd2 (3) wd3 (4) wd4

SEVERITY: Warning

LOG: LOG_LINK_EVENT verbose

ACTION: If numerous link events are occurring, check the physical connections to the Fibre Channel network.

elx_mes1305: Link Down Event <eventTag> received

DESCRIPTION: A link down event was received.

DATA: (1) fc_eventTag (2) hba_state (3) fc_flag

SEVERITY: Error

LOG: Always

ACTION: If numerous link events are occurring, check the physical connections to the Fibre Channel network.

elx_mes1306: Link Up Event in loop back mode <event_tag> received

DESCRIPTION: The driver received a link in loopback mode.

DATA: (1) fc_eventTag (2) granted_AL_PA (3) LinkSpeed (4) alpa_map[0]

SEVERITY: Error

LOG: Always

ACTION: No action required - this is a nonmaskable notification.

elx_mes1307: READ_LA mbox error <mbxStatus> state <hba_state>

DESCRIPTION: The driver cannot determine what type of link event occurred.

DATA: None

SEVERITY: Information

LOG: LOG_LINK_EVENT verbose

ACTION: If numerous link events are occurring, check the physical connections to the Fibre Channel network. May indicate a possible hardware or firmware problem.

elx_mes1308: FCoE Maint Mode Link up Event <event> rcvd

DESCRIPTION: The driver receive a link up event from the FcoE Port.

DATA: (1) fc_eventTag (2) port_state (3) fc_flag

SEVERITY: Error

LOG: Always

ACTION: No action required - this is a nonmaskable notification.

elx_mes1309: Link Down Event <event> received

DESCRIPTION: The driver received a link down event from the port.

DATA: (1) fc_eventTag (2) port_state (3) fc_flag

SEVERITY: Error

LOG: Always

ACTION: No action required - this is a nonmaskable notification. Should this error persist, contact Technical Support.

elx_mes1310: Link Up Event npiv not supported in loop topology

DESCRIPTION: The driver is attempting to use NPIV, but the link came up in loop mode and NPIV is not supported.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: Check your port connect and ensure it is connected to a fabric.

elx_mes1311: fa <fa_value>

DESCRIPTION: The driver received a link event from an FcoE port and read an FA value.

DATA: None

SEVERITY: Informational

LOG: LOG_LINK_EVENT verbose

ACTION: No action required, informational.

IOCTL Events (1600 - 1699)

elx_mes1601: libdfc ioctl entry

DESCRIPTION: The entry point for processing an ioctl.

DATA:(1) lpfc_cmd (2) lpfc_arg1 (3) lpfc_arg2 (4) lpfc_outsz

SEVERITY: Information

LOG: LOG_LIBDFC verbose

ACTION: None required.

elx_mes1602: libdfc ioctl exit

DESCRIPTION: The exit point for processing an ioctl.

DATA:(1) rc (2) lpfc_outsz (3) lpfc_dataout

SEVERITY: Information

LOG: LOG_LIBDFC verbose

ACTION: None required.

elx_mes1604: libdfc32 ioctl entry

DESCRIPTION: The driver is entering an IOCTL request in compatibility mode (32 bit)
DATA: (1) lpfc_cmd (2) lpfc_arg1 (3) lpfc_arg2 (4) lpfc_outsz
SEVERITY: Information
LOG: LOG_LIBDFC verbose
ACTION: No action required - information

elx_mes1605: libdfc32 ioctl exit

DESCRIPTION: The driver is exiting an IOCTL in compatibility mode (32 bit)
DATA: (1) status (2) lpfc_outsz (3) lpfc_dataout
SEVERITY: Information
LOG: LOG_LIBDFC verbose
ACTION: No action required - information

VPort Events (1800 - 1832)

elx_mes1800 Could not issue unreg_vpi

DESCRIPTION: Driver attempt to unregister vpi failed
DATA: None
SEVERITY: Error
LOG: LOG_VPORT verbose
ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1801 Create vport work array FAILED: cannot do scsi_host_get

DESCRIPTION: The driver was unable to get a reference to a SCSI host.
DATA: None
SEVERITY: Warning
LOG: LOG_VPORT verbose
ACTION: Software driver warning. If this problem persists, report these errors to Technical Support.

elx_mes1802 HBQ <index>: local_hbqGetIdx <index> is > than hbqp->entry_count <count>

DESCRIPTION: An error occurred when processing queue related to an HBA in a particular slot.
DATA: (1) hbqno (2) local_hbqGetIdx (3) entry_count
SEVERITY: Error
LOG: LOG_VPORT verbose
ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1803 Bad hbq tag. Data: <tag> <count>

DESCRIPTION: An error occurred when processing queue related tags for an HBA in a particular slot.
DATA: (1) tag (2) buffer_count
SEVERITY: Error
LOG: LOG_VPORT verbose
ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1805 Adapter failed to init.Data: <command> <status> <queue num>

DESCRIPTION: An error occurred when processing queue related tags for an HBA in a particular slot.

DATA: (1) mbxCommand (2) mbxStatus (3) hbaqno

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1806 Mbox <command> failed. No vport.

DESCRIPTION: A mailbox command could not be communicated because there was no vport associated with the mailbox command.

DATA: mbxCommand

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1807 IOCB <value> failed. No vport

DESCRIPTION: An IOCB command could not be communicated because there was no vport associated with the mailbox command.

DATA: (1) ulpCommand

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1808 Create VPORT failed: NPIV is not enabled: SLImode <mode>

DESCRIPTION: The driver failed to create a port because the HBA was in wrong mode or was not capable of NPIV.

DATA: (1) sli_rev

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Load the driver with npiv enabled on an HBA that supports SLI-3.

elx_mes1809 Create VPORT failed: Max VPORTs (<vpi>) exceeded.

DESCRIPTION: The driver failed to create a port because the maximum number of port supported by the driver will be exceeded.

DATA: (1) max_vpi

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: No Action. The driver can not create any more vports.

elx_mes1810 Create VPORT failed: Cannot get instance number.

DESCRIPTION: The driver failed to allocate resources for an adapter and could not assign an instance number.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1811 Create VPORT failed: vpi x<vpi>

DESCRIPTION: The driver failed to create a port and had to eliminate all its resources.

DATA: vpi

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1812 vport_delete failed: Cannot delete physical host

DESCRIPTION: An attempt to delete a port failed because it was to delete a physical port and not a virtual port. Only vports on physical ports can be deleted on an NPIV system.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1813 Create VPORT failed. Cannot get sparam.

DESCRIPTION: The port could not be created because it could not be initialized possibly due to unavailable resources.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1814: Create VPORT failed. vname allocation failed

DESCRIPTION: The driver could not allocate memory for the vport name when creating a vport.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a driver issue. If problems persist, report these errors to Technical Support.

elx_mes1815 Could not issue unreg_did (default rpi)

DESCRIPTION: Attempt to unregister rpi failed.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1816 FLOGI NPIV supported, response data <port>

DESCRIPTION: The fabric reports support for NPIV upon FLOGI.

DATA: (1) response_multiple_NPort

SEVERITY: Warning

LOG: LOG_VPORT verbose

ACTION: No action needed, informational.

elx_mes1817 Fabric does not support NPIV - configuring single port mode

DESCRIPTION: The fabric reports no support for NPIV upon FLOGI.

DATA: None

SEVERITY: Warning

LOG: LOG_VPORT verbose

ACTION: No action needed, informational.

elx_mes1818 VPort failed init, mbxCmd <mailbox command> READ_SPARM mbxStatus <mailbox status>, rc = <status>

DESCRIPTION: A pending mailbox command issued to initialize port, failed.

DATA: (1) mbxCommand (2) mbxStatus (3) rc

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1819 Unrecognized lpfc_sli_mode parameter: <mode>

DESCRIPTION: The user has attempted to set the SLI mode to an invalid value. The only valid values for the SLI mode are 0, 2, and 3.

DATA: (1) lpfc_sli_mode

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: The lpfc_sli_mode driver parameter setting must be corrected. Valid values are 0, 2, and 3.

elx_mes1820 Unable to select SLI-3. Not supported by adapter.

DESCRIPTION: The HBA is not capable of operating in a given mode.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: SLI-3 mode is only available on some HBAs. Do not attempt to force the SLI mode to 3 on HBAs that do not support SLI-3 mode. This is an informational message. HBAs that do not support SLI-3 will be configured to run in SLI-2 mode, but it is recommended to use the auto setting (0).

elx_mes1821 Create VPORT failed. Invalid WWN format

DESCRIPTION: The port could not be created due to an invalid WWNN or WWPN format.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Provide a valid WWN when creating Vports.

elx_mes1822 Invalid <name>: <xx: xx: xx: xx: xx: xx: xx: xx>

DESCRIPTION: An invalid WWN was used when creating a vport.

DATA: (1) type_name (2) wwn[1] (3) wwn[3] (3) wwn[5] (4) wwn[7]

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: When creating a vport you must furnish a valid WWN.

elx_mes1823 Create VPORT failed. Duplicate WWN on HBA.

DESCRIPTION: The port could not be created because it would duplicate an existing WWNN HBA address. The resources for the port had to be discarded.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Provide a WWN that is unique.

elx_mes1824 NPIV enabled: Override lpfc_sli_mode parameter (<mode>) to auto(0)

DESCRIPTION: The lpfc_enable_npiv and lpfc_sli_mode driver parameter settings conflict. The HBA must be configured for SLI-3 mode to support NPIV.

DATA: (1) lpfc_sli_mode

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: This is an informational message that indicates that the lpfc_enable_npiv and lpfc_sli_mod parameter settings are not compatible. Resolve the parameter conflict by setting the SLI mode to 0 or 3 or, if SLI-2 mode is required then disable NPIV.

elx_mes1825 Vport Created.

DESCRIPTION: This message is displayed to indicate that a port was created in the system. It is displayed at this level to ensure it is always appears at all log levels.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: No action, informational.

elx_mes1826 Vport Disabled.

DESCRIPTION: The port had to be disabled in the system.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: No action, informational.

elx_mes1827 Vport Enabled.

DESCRIPTION: The port had to be enabled after possible recovery from some errors.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: No action, informational.

elx_mes1828 Vport Deleted.

DESCRIPTION: A Vport was deleted.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: No action, informational.

elx_mes1829 CT command failed to delete objects on fabric.

DESCRIPTION: A command issued to the fabric to delete an associated resource for an object such as for a port, failed.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Software driver error. If this problem persists, report these errors to Technical Support.

elx_mes1830 Signal aborted mbxCmd <command>

DESCRIPTION: A pending mailbox command was aborted because the thread received a signal.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: You should retry the attempted command.

elx_mes1831 Create VPORT Interrupted.

DESCRIPTION: The port creation process was unexpectedly interrupted at a critical time and the operation was unsuccessful.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: The process was interrupted while creating a vport. Retry the command.

elx_mes1832 Delete VPORT can not proceed at this time due to SCSI layer busy.

DESCRIPTION: An attempt to delete a port failed because it was deemed unsafe as the system was not in proper state, such as link down or SCSI layer has not released all the targets associated with the port.

DATA: None

SEVERITY: Error

LOG: LOG_VPORT verbose

ACTION: Retry the command. If this problem persists, report these errors to Technical Support.

elx_mes1833: Vport discovery quiesce Wait: vpi <vpi> state <state> fc_flags <fc_flags>num_nodes <count> wait msec <num>

DESCRIPTION: The driver is waiting for FC discovery to quiesce during a vport create or vport delete. The various data values in the message show the progress.

DATA: None

SEVERITY: Information

LOG: Always

ACTION: No action required, informational.

elx_mes1834: Vport discovery quiesced: vpi <vpi> state <state> fc_flags <fc_flags>num_nodes <count> wait msec <num>

DESCRIPTION: FC discovery has quiesced allowing the vport create/delete to safely proceed.

DATA: None

SEVERITY: Information

LOG: LOG_VPORT verbose

ACTION: No action needed, informational.

elx_mes1835: Vport discovery quiesce failed: vpi <vpi> state <state> fc_flags <fc_flags> num_nodes <count> wait msecs <num>

DESCRIPTION: The driver waited the maximum amount of time for FC discovery to complete and did not detect a successful conclusion.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This could indicate a problem with the driver or with the SAN. If the condition persists, contact Technical Support.

elx_mes1840: Could not issue unreg_login(all_rpis) status <status>

DESCRIPTION: The driver tried to unregister all rpi's assigned to a vport and failed. The status indicates the reason.

DATA: None

SEVERITY: Error

LOG: LOG_MBOX | LOG_VPORT verbose

ACTION: This could indicate a driver or firmware issue. If problems persist, contact Technical Support.

IOCTL Events (1900 - 1999)

elx_mes1901: Queuing Temperature event

DESCRIPTION: The driver is queuing a temperature event from the HBA.

DATA: None

SEVERITY: Information

LOG: LOG_EVENT verbose

ACTION: See messages 0346, 0347 and 0340 for corrective action.

elx_mes1902: Queuing Dump event

DESCRIPTION: The driver is queueing a dump completion event from the HBA.

DATA: None

SEVERITY: Information

LOG: LOG_EVENT verbose

ACTION: No action required, informational.

elx_mes1903: Event Queuing enabled

DESCRIPTION: A management agent has enabled event queueing in the driver.

DATA: None

SEVERITY: Information

LOG: LOG_EVENT verbose

ACTION: No action needed, informational.

elx_mes1904: Event delivered

DESCRIPTION: The driver delivered an event to the management agent.

DATA: None

SEVERITY: Information

LOG: LOG_EVENT verbose

ACTION: No action needed, informational.

elx_mes1905: Event Queuing disabled

DESCRIPTION: A management agent has disabled event queuing in the driver.

DATA: None

SEVERITY: Information

LOG: LOG_EVENT verbose

ACTION: No action needed, informational.

elx_mes1907: Dropping Dump event

DESCRIPTION: The driver is dropping a dump event because no event buffers are available.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: The management agent might not be running. Check to ensure the Emulex core kit is installed and running. If the condition persists, contact Technical Support.

elx_mes1908: Dropping Temperature event

DESCRIPTION: The driver is dropping a temperature event because no data buffers are available.

DATA: None

LOG: LOG_EVENT verbose

ACTION: This could mean the driver is in a low memory state. If the condition persists, contact Technical Support.

elx_mes1909: Dropping Dump event

DESCRIPTION: The driver is dropping a dump completion event because no event buffers are available.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: The management agent might not be running. Check to ensure the Emulex core kit is installed and running. If the condition persists, contact Technical Support.

elx_mes1911: Exec Format Error, Dropping CT event

DESCRIPTION: The driver is dropping a CT event because it could not find the dfchost handling this CT event.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: This could be a driver issue. If the condition persists, contact Technical Support.

elx_mes1920: Exec format error, Dropping Link state event

DESCRIPTION: The driver is dropping a Link event because it could not find the dfchost handling this CT event.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This could be a driver issue. If the condition persists, contact Technical Support.

elx_mes1921: ENOMEM Dropping Link state event

DESCRIPTION: The driver is dropping a link event because no event buffers are available.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: The management agent might not be running. Check to ensure the Emulex core kit is installed and running. If the condition persists, contact Technical Support.

elx_mes1922: Queuing Link state event

DESCRIPTION: The driver is queueing a link event for the management agent.

DATA: None

SEVERITY: Information

LOG: LOG_EVENT verbose

ACTION: No action needed, informational.

elx_mes1923: Exec format error, Dropping rscn event

DESCRIPTION: The driver is dropping an rscn event because it could not find the dfchost handling this CT event.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This could be a driver issue. If the condition persists, contact Technical Support.

elx_mes1924: ENOMEM Dropping rscn event

DESCRIPTION: The driver is dropping an rscn event because no event buffers are available.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: The management agent might not be running. Check to ensure the Emulex core kit is installed and running. If the condition persists, contact Technical Support.

elx_mes1925: Queuing rscn event

DESCRIPTION: The driver queued an rscn event to the management agent.

DATA: None

SEVERITY: Information

LOG: LOG_EVENT verbose

ACTION: No action needed, informational.

elx_mes1926: Exec format error

DESCRIPTION: The driver is failing the loopback test because it could not find the dfchost handling this loopback request.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This could be a driver issue. If the condition persists, contact Technical Support.

elx_mes1927: Exec format error, Dropping temp event

DESCRIPTION: The driver is failing a temperature event from the device because it could not find the dfchost handling this event.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This could be a driver issue. If the condition persists, contact Technical Support.

elx_mes1928: Exec format error, Dropping dump event

DESCRIPTION: The driver is failing a dump event from the device because it could not find the dfchost handling this event.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This could be a driver issue. If the condition persists, contact Technical Support.

elx_mes1929: Exec format error

DESCRIPTION: The driver is failing a loop_get_xri event from the management agent because it could not find the dfchost handling this request.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This could be a driver issue. If the condition persists, contact Technical Support.

elx_mes1930: Exec Format Error, Dropping event

DESCRIPTION: The driver is failing a get_event request from the management agent because it could not find the dfchost handling this request.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: This could be a driver issue. If the condition persists, contact Technical Support.

elx_mes1931: Loopback test did not receive expected data length. received length <length> expected length <length>

DESCRIPTION: The driver started a loopback test and expected the source data byte count to get returned. This did not happen causing a test failure.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: This could indicate a problem with the driver or with the SAN. If the condition persists, contact Technical Support.

elx_mes1932: Loopback test failure ENOMEM

DESCRIPTION: The driver started a loopback test but there was no receive buffer on its completion. This causes a test failure.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: This could indicate a problem with the driver or with the SAN. If the condition persists, contact Technical Support.

elx_mes1933: ENOMEM Discarding Link state data

DESCRIPTION: The driver is processing a link event but could not allocate a data buffer. The driver is dropping the event.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: The driver could be in a low memory state. If the condition persists, contact Technical Support.

elx_mes1934: ENOMEM DMA coherent resource unavailable

DESCRIPTION: The driver failed to allocate coherent memory for a DMA operation. The IOCTL command will fail.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: The driver could be in a low memory state. If the condition persists, contact Technical Support.

elx_mes1936: ENOMEM Kernel resource unavailable

DESCRIPTION: The driver is trying to run a loopback test and failed to get the DMA resources needed. The loopback test will fail.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This error could indicate a driver issue. If the condition persists, contact Technical Support.

elx_mes1938: Dropping CT event

DESCRIPTION: The driver is dropping a received CT event - no bde buffer included.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: This error could indicate a driver issue. If the condition persists, contact Technical Support.

elx_mes1939: Dropping CT event ENOMEM

DESCRIPTION: The driver received an SLI3 event but can't get an event buffer. The driver is dropping the event.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: The management agent might not be running. Check to ensure the Emulex core kit is installed and running. If the condition persists, contact Technical Support.

elx_mes1940: Dropping CT event ENOMEM

DESCRIPTION: The driver received an SLI3 event but can't get a data buffer. The driver is dropping the event.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: The driver could be in a low memory state. If the condition persists, contact Technical Support.

elx_mes1941: Queuing LOOPBACK event

DESCRIPTION: The driver detected an SLI3 Loopback event and queued it for the management agent.
DATA: None
SEVERITY: Information
LOG: LOG_EVENT verbose
ACTION: No action required, informational.

elx_mes1942: Queuing CT event

DESCRIPTION: The driver detected an SLI3 CT event and queued it for the management agent.
DATA: None
SEVERITY: Information
LOG: LOG_EVENT verbose
ACTION: No action required, informational.

elx_mes1943: WARNING CT event Queue full

DESCRIPTION: The driver received a CT event and tried to queue it, but its event queue is full. The driver is dropping the event.
DATA: None
SEVERITY: Warning
LOG: LOG_EVENT verbose
ACTION: The management agent might not be running. Check to ensure the Emulex core kit is installed and running. If the condition persists, contact Technical Support.

elx_mes1944: ENOMEM kernel memory resource unavailable

DESCRIPTION: The driver is processing an IOCB timeout event and can't allocate kernel memory for the event. The timeout is getting dropped.
DATA: None
SEVERITY: Error
LOG: Always
ACTION: This error could indicate a driver issue. If problems persist, report these errors to Technical Support.

elx_mes1945: Dropping CT event ENOMEM

DESCRIPTION: The driver is processing an SLI3 CT event, but can't allocate an event buffer. The event is getting dropped.
DATA: None
SEVERITY: Warning
LOG: LOG_EVENT verbose
ACTION: The management agent might not be running. Check to ensure the Emulex core kit is installed and running. If the condition persists, contact Technical Support.

elx_mes1946: Queuing LOOPBACK event

DESCRIPTION: The driver detected an SLI2 loopback event and queued it for the management agent.
DATA: None
SEVERITY: Information
LOG: LOG_EVENT verbose
ACTION: No action needed, informational.

elx_mes1947: Queuing CT event

DESCRIPTION: The driver detected an SLI2 CT event and queued it for the management agent.

DATA: None

SEVERITY: Information

LOG: LOG_EVENT verbose

ACTION: No action needed, informational.

elx_mes1948: IOCB command timeout

DESCRIPTION: The driver is processing an IOCB timeout and pended the completion.

DATA: None

SEVERITY: Information

LOG: Always

ACTION: No action required, informational.

elx_mes1949: ENOEXEC NULL parameter passed to function

DESCRIPTION: The driver was passed a NULL pointer to a loopback request and is failing the request.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: This could indicate a problem with the driver or the management agent. If the condition persists, contact Technical Support.

elx_mes1950: ENOMEM IOCB resource not available

DESCRIPTION: The driver is processing a loopback request but could not get a command IOCB. The driver is failing the request.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: The driver could be in a low memory state. If the condition persists, contact Technical Support.

elx_mes1951: ENOMEM MBUF resource not available

DESCRIPTION: The driver is processing a loopback request, but could not get a buffer resource. The driver is failing the loopback request.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: The driver could be in a low memory state. If the condition persists, contact Technical Support.

elx_mes1952: ENOMEM DMA resource not available

DESCRIPTION: The driver is processing a loopback request, but could not get a DMA resource. The driver is failing the loopback request.

DATA: None

SEVERITY: Error

LOG: Always

ACTION: The driver could be in a low memory state. If the condition persists, contact Technical Support.

elx_mes1953: Caught iocb timeout race condition

DESCRIPTION: The driver issued an IOCB that timed out, but then completed during the driver's timeout handling. The driver will complete it normally.

DATA: None

SEVERITY: Information

LOG: Always

ACTION: No action required, informational.

elx_mes1954: SLI2Event bytes copied <byte_count>

DESCRIPTION: The driver is processing an SLI2 event and copied <byte_count> bytes to the event.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: No action needed, informational.

elx_mes1955: SLI3Event bytes copied <byte_count>

DESCRIPTION: The driver is processing an SLI3 event and copied <byte_count> bytes to the event.

DATA: None

SEVERITY: Warning

LOG: LOG_EVENT verbose

ACTION: No action needed, informational