



## Cisco IOS System Message Guide for the Catalyst 4000 Family Switch

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## Preface

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This preface describes who should read the *Cisco IOS System Message Guide for the Catalyst 4000 Family Switch* how it is organized, where to find related information, the typefaces used for commands, how to obtain information, and how to obtain technical assistance.

## Audience

This publication is designed for installers and users of the Catalyst 4000 family switch system software and users with a working knowledge of the product. Users of this publication might also include network administrators and other people responsible for setting up and maintaining these switches.

## Organization

The major sections of this publication are as follows:

Chapter	Title	Description
1	<a href="#">System Message Overview</a>	Describes how to read a system or error message.
2	<a href="#">Message and Recovery Procedures</a>	Contains explanations of messages and recommended actions.

## Related Documentation

The following publications are available for the Catalyst 4000 family switches:

- *Catalyst 4000 Series Installation Guide*
- *Catalyst 4500 Series Installation Guide*
- *Catalyst 4000 Family Module Installation Guide*
- *Cisco IOS Software Configuration Guide for the Catalyst 4000 Family Switch*
- *Cisco IOS Command Reference for the Catalyst 4000 Family Switch*
- *Release Notes for Catalyst 4000 Family Switch, Cisco IOS Release 12.1(12c)EW*
- *Installation and Configuration Note for the Catalyst 4000 Family Supervisor Engine III*

- *Installation and Configuration Note for the Catalyst 4000 Family Supervisor Engine IV*
- Cisco IOS Configuration Guides and Command References—Use these publications to help you configure the Cisco IOS software that runs on the MSFC and on the MSM and ATM modules.
- For information about MIBs, go to the following URL:  
<http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>

## Conventions for Commands

This document uses the following font conventions when showing commands:

Convention	Description
<b>boldface font</b>	Commands, command options, and keywords are in <b>boldface</b> .
<i>italic font</i>	Command arguments for which you supply values are in <i>italic</i> .
[ ]	Command elements in square brackets are optional.
{ x   y   z }	Alternative command keywords are grouped in braces and separated by vertical bars.
[ x   y   z ]	Optional alternative command keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the command string or the string will include the quotation marks.
screen font	Terminal sessions and information the system displays are in screen font.
<b>boldface screen font</b>	Information you must enter is in <b>boldface screen font</b> .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
→	This pointer highlights an important line of text in an example.
Ctrl-D	This key combination means hold down the Control key while you press the D key.
< >	Nonprinting characters, such as passwords, are in angle brackets.

Notes use the following conventions:



### Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.

# Obtaining Documentation

These sections explain how to obtain documentation from Cisco Systems.

## World Wide Web

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com>

Translated documentation is available at this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

## Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

## Ordering Documentation

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:  
[http://www.cisco.com/cgi-bin/order/order\\_root.pl](http://www.cisco.com/cgi-bin/order/order_root.pl)
- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:  
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- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

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You can submit your comments by mail by using the response card behind the front cover of your document or by writing to the following address:

Cisco Systems  
Attn: Document Resource Connection  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web Site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web Site.

### Cisco.com

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- Resolve technical issues with online support
- Download and test software packages
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If you want to obtain customized information and service, you can self-register on Cisco.com. To access Cisco.com, go to this URL:

<http://www.cisco.com>

## Technical Assistance Center

The Cisco Technical Assistance Center (TAC) is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two levels of support are available: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Cisco TAC inquiries are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

The Cisco TAC resource that you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

### Cisco TAC Web Site

You can use the Cisco TAC Web Site to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to this URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

<http://www.cisco.com/register/>

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC Web Site, you can open a case online by using the TAC Case Open tool at this URL:

<http://www.cisco.com/tac/caseopen>

If you have Internet access, we recommend that you open P3 and P4 cases through the Cisco TAC Web Site.

### Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.



# System Message Overview

This chapter describes the IOS system message structure and error message traceback report.

This chapter contains the following major sections:

- [Structure of System Error Messages, page 1-1](#)
- [Error Message Traceback Reports, page 1-4](#)

## Structure of System Error Messages

System error messages are structured as follows:

FACILITY-SEVERITY-MNEMONIC: Message-text

- FACILITY code

The facility code consists of at least two uppercase letters that indicate the facility to which the message refers. A facility can be a hardware device, a protocol, or a module of the system software.

[Table 1-1](#) lists the system facility codes.

**Table 1-1 Facility Codes**

Code	Facility
ACL	Access control list
BUFFERMANAGER	Memory buffer management
CHASSIS	Chassis
COMMONHWACLMAN	Common hardware ACL management
DTP	Dynamic Trunking Protocol
EBM	Ethernet bridge management
EC	EtherChannel
GBICMAN	Gigabit Interface Convertor (GBIC) manager
HWACLMAN	Hardware ACL management
HWPORTMAN	Hardware port management
IDBMAN	Interface descriptor block management
IOSACLMAN	IOS ACL management
IOSDHCP SnoopMAN	IOS DHCP snoop management

**Table 1-1 Facility Codes (continued)**

Code	Facility
IOSIGMPSNOOPMAN	IOS IGMP Snoop management
IOSIPROUTEMAN	IOS IP route management
IOSINTF	Catalyst 4000 IOS interface operation
IOSL2MAN	ISO Layer 2 management
IOSSYSMAN	Catalyst 4000 IOS system management
IPROUTEMAN	Catalyst 4000 IOS IP routing management
L3HWFORWARDING	Layer 3 hardware forwarding
LINECARDMGMTPROTOCOL	Line Card Management Protocol
PKTPROCESSING	Packet processing
PM	Port manager
PORTFANOUTASIC4X1000MAN	Port fan-out ASIC 4x1000 management
PORTFANOUTASIC8X100MAN	Port fan-out ASIC 8x100 management
PORTFANOUTASIC8X1000HW	Port fan-out ASIC 8x1000 hardware
PORTFANOUTASIC8X1000MAN	Port fan-out ASIC 8x1000 management
QOS	Quality of Service
SPANTREE	Spanning Tree Protocol
SPANTREE-FAST	Spanning Tree fast convergence extensions
SPANTREE_VLAN_SW	Spanning Tree VLAN switch management
STORE	Memory
SUPERVISOR	Supervisor
SW-VLAN	Switch VLAN management
SWITCHINGENGINEMAN	Switching engine management
SWITCHMANAGER	Switch management
SYSMAN	System management
UFAST	UplinkFast
WATCHDOG	Watchdog timer

- SEVERITY level

The severity level is a single-digit code from 0 to 7 that reflects the severity of the condition. The lower the number, the more serious the situation. [Table 1-2](#) lists the message severity levels.

**Table 1-2 Message Severity Levels**

Severity Level	Description
0	Emergency – System is unusable
1	Alert – Immediate action required
2	Critical – Critical condition
3	Error – Error condition

**Table 1-2** Message Severity Levels (continued)

Severity Level	Description
4	Warning– Warning condition
5	Notification – Normal but significant condition
6	Informational – Informational message only
7	Debugging – Message that appears during debugging only

- **MNEMONIC code**  
The mnemonic code uniquely identifies the error message.
- **Message text**  
Message text is a text string that describes the error condition. The text string sometimes contains detailed information about the event, including terminal port numbers, network addresses, or addresses that correspond to locations in the system memory address space. Because variable fields change from message to message, they are represented here by short strings enclosed in square brackets ([ ]). A decimal number, for example, is represented as [dec]. [Table 1-3](#) lists the variable fields in messages.

**Table 1-3** Representation of Variable Fields in Messages

Representation	Type of Information
[dec]	Decimal
[chars] or [char]	Character string
[hex]	Hexadecimal integer
[num]	Number

## Sample System Error Messages

The following is an example of a system error message:

**Error Message** LINK-2-BADVCALL: Interface [chars], undefined entry point

Some error messages also indicate the card and slot reporting the error. These error messages are structured as follows:

*CARD-SEVERITY-MSG:SLOT FACILITY-SEVERITY-MNEMONIC:*  
*Message-text*

- *CARD* is a code that describes the type of card reporting the error.
- *MSG* is a mnemonic indicating that this is a message. It is always shown as *MSG*.
- *SLOT* indicates the slot number of the card reporting the error. It is shown as *SLOT* followed by a number (for example, *SLOT5*).

# Error Message Traceback Reports

Some messages describe internal errors and contain traceback information, which provides the stack trace of the function calls that resulted in the message. This trace helps the engineers track down the problem indicated in the message. You should include this information when you report a problem to your technical support representative.

The traceback report includes the following sample information:

```
-Process= "Exec", level= 0, pid= 17
```

```
-Traceback= 1A82 1AB4 6378 A072 1054 1860
```

The numbers printed above indicate which lines of code caused the message to occur.



## Message and Recovery Procedures

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This chapter lists and describes the IOS system error messages for the Catalyst 4000 family switch by facility. Within each facility, the messages are listed by severity levels 0 to 7. The highest severity level is 0, and the lowest severity level is 7. Each message is followed by an explanation and a recommended action, if available.

The system sends these error messages to the console (and, optionally, to a logging server on another system). Not all system error messages indicate problems with your system; some are purely informational, while others help diagnose problems with communication lines, internal hardware, or the system software.



**Note**

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The messages listed in this chapter do not include the date/time stamp designation; the date/time stamp designation is displayed only if the software is configured for system log messaging.

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**Note**

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Writing to a module's serial EEPROM is not standard practice; when the module comes from the factory, the serial EEPROM is set to the correct values. Changing the factory defaults can cause the module to malfunction, and is not recommended.

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**Note**

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If the Explanation provided for a given command does not sufficiently explain your problem and there is no recommended action given, write down the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** command to gather additional information about the error. If the error message text and the output from the **show tech-support** command do not help you solve the problem, contact your technical support representative and provide the representative with the information you have gathered.

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In the course of resolving system/hardware errors, you may need to contact your technical support representative for assistance. For detailed information on how to do this, see [Obtaining Technical Assistance](#).

## ACL Message

This section contains the access control list (ACL) messages.

**Error Message** C4K\_ACL-4-OUTOFMEMORY:Out of Memory while allocating [char]

**Explanation** The software failed to allocate memory for the given object while processing ACLs. Possibly, the configuration exceeded its maximum limit. If so, the feature using this ACL will not work.

**Recommended Action** If it is mandatory that the feature work normally, remove other unwanted features that require ACLs and retry the operation. If there are no features using ACLs that can be removed, contact your technical support representative.

## Buffer Manager Message

This section contains the memory buffer management (BUFFERMANAGER) message.

**Error Message** C4K\_BUFFERMANAGER-3-OUTOFVBUFS: Have run out of vbufs (internal buffers)

**Explanation** The switch has run out of the internal memory buffers used for various tasks.

This is an unusual error because the internal buffers are generally used for only a short time, released, and then available for reuse. Usually this condition is transitory.

**Recommended Action** If the message reappears, reset the system.

# Chassis Messages

This section contains the chassis (CHASSIS) messages.

## CHASSIS-2

**Error Message** C4K\_CHASSIS-2-INSUFFICIENTFANSDETECTED:Too few working fans, the chassis will overheat

**Explanation** One or more fans in the system fan tray have failed. Although this is a minor alarm, system components could overheat and shut down.

**Recommended Action** Replace the system fan tray or broken fans.

**Error Message** C4K\_CHASSIS-2-INSUFFICIENTFANSSHUTDOWN:Resetting linecards due to too few working fans

**Explanation** One or more required fans in the fan tray or power supplies has failed. Modules have been reset to reduce heat generation.

**Recommended Action** Replace the broken fans as soon as possible.

**Error Message** C4K\_CHASSIS-2-INSUFFICIENTPOWERDETECTED:Insufficient power available for the current chassis configuration

**Explanation** The current chassis configuration exceeds power availability. If this situation persists, modules will reset.

**Recommended Action** If the power availability problem persists and impacts performance, replace the power supply with a larger capacity power supply.

**Error Message** C4K\_CHASSIS-2-INSUFFICIENTPOWERSHUTDOWN:Resetting linecards due to insufficient power

**Explanation** The switch has been using more power than is available for the allowed time interval. Modules were reset to reduce power consumption.

**Recommended Action** If the power availability problem persists and impacts performance, replace the power supply with a larger capacity power supply.

**Error Message** C4K\_CHASSIS-2-OVERHEATINGSHUTDOWN:Resetting linecards due to critical temperature

**Explanation** The maximum allowable operating temperature for the switch has been exceeded. The modules have been reset to reduce heat generation.

**Recommended Action** Verify that the switch is in the proper operating environment, and that the fans are functioning properly.

## CHASSIS-3

**Error Message** C4K\_CHASSIS-3-BADGBIC:Port [char]: Gbic's seeeprom is bad, try reinserting: vendor: [char], p/n: [char], s/n: [char]

**Explanation** A Gigabit Interface Convertor (GBIC) with a serial EEPROM has been detected in the port specified in the message. Although a reading of the serial EEPROM's contents succeeded, the contents are not valid (perhaps due to a bad checksum).

The message lists the vendor, part number, and serial number from the GBIC's serial EEPROM. Sometimes, this error occurs because the GBIC is not seated correctly.

**Recommended Action** Remove and reinsert the GBIC. If this message appears repeatedly, insert the GBIC in another port to verify that it is the GBIC and not the port that is bad. If the GBIC fails in the a different port, you need to return the GBIC to your technical support representative for reprogramming. If the GBIC works in other ports but not the original port, the original port is bad, and the module needs to be returned to your representative for repair. To further test the port, insert a different GBIC into the port. If the other GBIC fails in that port, the port is bad.

**Error Message** C4K\_CHASSIS-3-BADMACRANGEINSPROM:Module [dec]'s serial eeprom contains [dec] mac addresses, but needs [dec]

**Explanation** The module's serial EEPROM contains a range of MAC addresses for this module. The range should contain the same number of MAC addresses as front-panel ports, because each MAC address corresponds to a front-panel port. The contents of the module's serial EEPROM is incorrect, and the range is smaller than the number of front-panel ports for the module.

**Recommended Action** You need to return the module to Cisco to reprogram the serial EEPROM. Contact your technical support representative.

**Error Message** C4K\_CHASSIS-3-DAUGHTERCARDSEEPROMREADFAILED:Failed to read the serial eeprom on module [dec], daughter card [dec]

**Explanation** The serial EEPROM for a daughter card on the specified module is unreadable. Because reading this EEPROM is the only way to determine what type of card this is, the card remains offline, as if it was not installed on the module.

**Recommended Action** Remove the module; then remove and reseat the daughter card in the module. If this message appears again after you reinsert the module into the switch, the serial EEPROM might be bad; you will need to return the module to Cisco. Contact your technical support representative.

**Error Message** C4K\_CHASSIS-3-GBICSEEPROMREADFAILED:Failed to read gbic serial eeprom on port [char], try reinserting

**Explanation** A Gigabit Interface Convertor (GBIC) with a serial EEPROM has been detected in the specified port, but a reading of the contents of the EEPROM has failed. The EEPROM must be read to determine the GBIC type. Sometimes the read fails because the GBIC is not seated correctly.

**Recommended Action** Remove and reinsert the GBIC. If this message reappears, insert the GBIC in another port to verify that it is the GBIC and not the port that is bad. If the GBIC fails in the other port, you need to return the GBIC to your technical support representative for reprogramming. If the GBIC works in other ports but not the original port, the original port is bad, and the module must be returned to your technical support representative for repair. To further test the port, insert a different GBIC into the port. If the other GBIC also fails in that port, the port is bad.

**Error Message** C4K\_CHASSIS-3-INSUFFICIENTPOWER:Insufficient power to bring up module in slot [dec]

**Explanation** The module type has been identified, but the switch does not have sufficient power to bring the module up. The switch holds the module in reset mode to consume less power.

**Recommended Action** Add or replace a power supply to expand the power capacity of the chassis.

**Error Message** C4K\_CHASSIS-3-INSUFFICIENTPOWERSUPPLIESDETECTED:Insufficient power supplies present for specified configuration

**Explanation** System software has detected that the current chassis configuration has fewer power supplies than required for the existing configuration.

**Recommended Action** Add a power supply to meet the needs of the current chassis configuration.

**Error Message** C4K\_CHASSIS-3-LINECARDSEEPROMREADFAILED:Failed to read module [dec]'s serial eeprom, try reinserting module

**Explanation** The switch cannot read the serial EEPROM of the specified module and the module will not boot because the EEPROM identifies the module type. Sometimes the read fails because the module isn't seated correctly in the slot.

**Recommended Action** Remove and reinsert the module. If this message appears again, reset the switch. If the switch is still unable to read the EEPROM, you need to return the module to Cisco. Contact your technical support representative.

**Error Message** C4K\_CHASSIS-3-LINECARDSEEPROMWRITEFAILED:Failed to write module [dec]'s serial eeprom

**Explanation** Writing to the serial EEPROM failed. Sometimes the write fails because the module isn't seated correctly in the slot.

**Recommended Action** Remove and reinsert the module. If this message reappears, reset the switch. If the switch is still unable to write to the EEPROM, you need to return the module to Cisco. Contact your technical support representative.

**Error Message** C4K\_CHASSIS-3-MODULENOTSUPPORTHALF:Module [dec] does not support 10 Mb or 100Mb Half duplex operation. Please have your card upgraded if you need half duplex operation.

**Explanation** Some pre-production boards have interfaces that do not work in half- duplex mode.

**Recommended Action** Return the unit to Cisco for replacement.

**Error Message** C4K\_CHASSIS-3-ONLYLXSFPSALLOWED:Port [char] has a non-LX SFP, which is not supported

**Explanation** The WS-X4448-GB-LX module supports only LX SFP; it marks any other type of SFP as faulty. SFP stands for Small Form-factor Pluggables.

**Recommended Action** Replace the SFP with an LX SFP known to be supported by Cisco.

**Error Message** C4K\_CHASSIS-3-OUTOFMEMORY:Ran out of memory - cannot allocate internal buffers

**Explanation** The switch has run out of memory in the temporary buffers.

**Recommended Action** If this message reappears, reboot the switch.

**Error Message** C4K\_CHASSIS-3-SEEPROMREADFAILEDATERWRITE:Error reading back module [dec]s serial EEPROM data after write

**Explanation** After writing a module's serial EEPROM in response to a CLI request, the switch tries to read it back in, to ensure that the correct values were written out. What the switch reads back in differs from what the switch wrote out. Sometimes the read or write fails because the module isn't seated correctly in the slot.

**Recommended Action** Remove and reinsert the module. If that doesn't work, reset the switch. If the read or write still fails, you need to return the module to Cisco by contacting your technical support representative.




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**Note** Note that writing the module's serial EEPROM is not standard practice; when the module comes from the factory, its serial EEPROM is set to the correct values; changing these values is not recommended because that could cause the module not to work.

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**Error Message** C4K\_CHASSIS-3-SFPCRCINTEGRITYCHECKFAILED:SFP integrity check on port [char] failed: bad crc

**Explanation** Only Cisco-qualified Small Form-factor Pluggables (SFPs) are supported. Other SFPs place the associated port in a faulty status.

The checksum of the SFP SEEPROM is not valid, indicating a bad or non-Cisco SFP.

**Recommended Action** Replace the SFP with one known to be supported by Cisco.

**Error Message** C4K\_CHASSIS-3-SFPINTEGRITYCHECKFAILED:SFP integrity check on port [char] failed: bad key

**Explanation** Only Cisco-qualified Small Form-factor Pluggables (SFPs) are supported. Other SFPs place the associated port in a faulty status.

**Recommended Action** Replace the SFP with one known to be supported by Cisco.

**Error Message** C4K\_CHASSIS-3-SFPSERIALINTEGRITYCHECKFAILED:SFPs on ports [char] and [char] have duplicate serial numbers

**Explanation** Only Cisco-qualified Small Form-factor Pluggables (SFPs) are supported. Other SFPs place the associated port in the faulty status.

All SFPs must have a unique serial number. This message indicates a cloned SFP SEEPROM.

**Recommended Action** Replace the SFP with one known to be supported by Cisco.

**Error Message** C4K\_CHASSIS-3-UNKNOWNLINECARD:Unknown module (Field Replaceable Unit minor type [dec]) in slot [dec]

**Explanation** The module's serial EEPROM has been read and the FRU minor type is unknown. This means that your current software image does not recognize this kind of module. A software upgrade is necessary.

**Recommended Action** Upgrade the software to a version that is compatible with the module.

## CHASSIS-4

**Error Message** C4K\_CHASSIS-4-CANTWRITESUPERVISORSPROM:Writing the supervisor's SPROM is not supported

**Explanation** Rewriting the supervisor's serial programmable read-only memory (SPROM) is not allowed, because if it is done incorrectly, it could make the system unusable.

**Error Message** C4K\_CHASSIS-4-OVERHEATINGOVER:Resuming normal operation after return to acceptable temperatures.

**Explanation** The unit's modules have been reset to reduce heat generation because the unit reached a critical temperature. The switch has returned to an acceptable temperature range and normal operation has resumed.

**Error Message** C4K\_CHASSIS-4-SUFFICIENTFANSRESTORED:Resuming normal operation after restoration of adequate fan cooling

**Explanation** The unit's modules have been reset to reduce heat generation because there were not enough working fans. Adequate fan cooling has been restored and normal operation is resuming.

**Error Message** C4K\_CHASSIS-4-SUFFICIENTPOWERRESTORED:Resuming normal operation after restoration of adequate power

**Explanation** The modules were reset to conserve power because the available power was exceeded. Adequate power has been restored and normal operation is resuming.

## CHASSIS-7

**Error Message** C4K\_CHASSIS-7-FANSGOOD: Fan failure fixed or new fan tray inserted

**Explanation** The system has detected sufficient fans for normal operation.

**Recommended Action** This is an informational message only. No action is required.

**Error Message** C4K\_CHASSIS-7-GBICINSERTED:Port [char]: New gbic inserted: vendor: [char], p/n: [char], s/n: [char]

**Explanation** A Gigabit Interface Convertor (GBIC) with a serial EEPROM has been detected in the specified interface. The message lists the vendor, part number, and serial number from the GBIC's serial EEPROM.

**Recommended Action** This is an informational message only. No action is required.

## COMMONHWACLMAN Messages

This section contains the common hardware ACL management (COMMONHWACLMAN) messages.

**Error Message** C4K\_COMMONHWACLMAN-4-FAILEDOTOSWITCHPORTTAGS:Failed to switch port tags, old tag: [object-info] new tag: [object-info] . Software paths: [dec] Hardware paths: [dec]

**Explanation** Software failed to switch tags. This could be a transient error. The ACL that we were trying to configure will not become active.

**Recommended Action** Detaching and attaching ACLs (and policies) again might solve the problem.

**Error Message** C4K\_COMMONHWACLMAN-4-FAILEDOTOSWITCHVLANTAGS:Failed to switch vlan tags, old tag: [object-info] new tag: [object-info] . Software paths: [dec] Hardware paths: [dec]

**Explanation** Software failed to switch tags. This could be a transient error. The ACL that you were trying to configure will not become active.

**Recommended Action** Detaching and re-attaching ACLs (and policies) might solve the problem.

**Error Message** C4K\_COMMONHWACLMAN-4-OUTOFPATHS: Could not allocate path for ( [object-info] )

**Explanation** There are too many ports or VLANs that are using ACLs. ACLs may not work correctly.

**Recommended Action** Try to remove unnecessary ACLs from some interfaces.

**Error Message** C4K\_COMMONHWACLMAN-4-OUTOFTAGS:No more free tags available

**Explanation** All the tags are being used or are about to be used. You have configured either too many features using ACLs or features using ACLs attached to ports or VLANs. Consequently, the hardware forwards the packets to CPU for ACL processing.

**Recommended Action** Try to remove unnecessary ACLs from some interfaces.

**Error Message** C4K\_COMMONHWACLMAN-4-PUNTTOSOFTWARE:Out of resources, punt packets to sw for [object-info]

**Explanation** Hardware content addressable memory (CAM) resources have been depleted. Consequently, the hardware forwards the packets to software for ACL processing.

## Dot1x (801.x) Messages

This section contains the 802.1x-related port-based authentication error messages.

**Error Message** DOT1X-4-MEM\_UNAVAIL:Memory was not available to perform the 802.1X action

**Explanation** Due to lack of memory, Dot1x cannot perform authentication, so it will not be enabled.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, install more memory.

**Error Message** DOT1X-4-MSG\_ERR: Unknown message event received

**Explanation** Due to an unexpected event, the Dot1x process received an unknown message.

**Recommended Action** Restart Dot1x in case the condition is transient. If the restart fails, reload the device.

**Error Message** DOT1X-4-PROC\_START\_ERR: DOT1X unable to start

**Explanation** For unknown reasons, Dot1x could not start.

**Recommended Action** Restart Dot1x by entering **dot1x system-auth-control** in case the condition is transient. If the restart fails, reload the device.

**Error Message** DOT1X-4-UNKN\_ERR: An unknown operational error occurred

**Explanation** Due to an unexpected internal error, Dot1x cannot operate.

**Recommended Action** Because of the unexpected nature of the problem, the only recommended action is to reload the device.

**Error Message** DOT1X-5-ERR\_CHANNELLING: Dot1x can not be enabled on Channelling ports

**Explanation** Because this port is a bundled port, **dot1x port-control** could not enable state with **auto** (or disable state with **force-authorized**).

**Recommended Action** No action is required.

**Error Message** DOT1X-5-ERR\_DYNAMIC: Dot1x can not be enabled on Dynamic ports

**Explanation** Because this port is a dynamic port, **dot1x port-control** could not enable state with **auto** (or disable state with **force-authorized**).

**Recommended Action** No action is required.

**Error Message** DOT1X-5-ERR\_DYNAMIC\_VLAN: Dot1x can not be enabled on dynamic VLAN ports.

**Explanation** Because this port is a dynamic VLAN port, **dot1x port-control** could not enable state with **auto** (or disable state with **force-authorized**).

**Recommended Action** No action is required.

**Error Message** DOT1X-5-ERR\_MULTI\_ACCESS:Dot1x can not be enabled on voice vlan configured ports.

**Explanation** Dot1x could not be enabled on a voice VLAN configured port. This condition is caused by trying to set Dot1x port-control to **auto** or **force-unauthorized (force\_unauth)** mode on a voice VLAN configured port, which is not allowed.

**Recommended Action** Disable voice VLAN on the interface and then try Dot1x.

**Error Message** DOT1X-5-ERR\_PROTO\_TUNNELLING:Dot1x can not be enabled on protocol tunnelling enabled ports.

**Explanation** Dot1x could not be enabled on the protocol tunneling enabled port. This condition is caused by trying to set Dot1x port-control to **auto** or **force-unauthorized (force\_unauth)** mode on a protocol tunneling enabled port, which is not allowed.

**Recommended Action** Disable protocol tunnelling on the interface and then try Dot1x.

**Error Message** DOT1X-5-ERR\_PSECURE: Dot1x can not be enabled on Port Security enabled ports

**Explanation** Because this port is a port security port, **dot1x port-control** could not be set to **auto** (or **force-authorized**).

**Recommended Action** No action is required.

**Error Message** DOT1X-5-ERR\_PVLAN\_TRUNK:Dot1x can not be enabled on private VLAN trunk ports.

**Explanation** Dot1x cannot coexist with private VLAN trunking on the same port.

**Recommended Action** No action is required.

**Error Message** DOT1X-5-ERR\_RSPAN\_VLAN:Dot1x can not be enabled on ports configured in Remote SPAN vlan.

**Explanation** Dot1x could not be enabled on the Remote SPAN VLAN port. This condition is caused by trying to set Dot1x port-control to **auto** or **force-unauthorized (force\_unauth)** mode on a port that is in the remote SPAN VLAN, which is not allowed.

**Recommended Action** Disable **remove span** on the VLAN and then try Dot1x.

**Error Message** DOT1X-5-ERR\_SPANDST: Dot1x can not be enabled on SPAN destination ports

**Explanation** Because this port is a SPAN destination port, **dot1x port-control** could not enable state with **auto** (or disable state with **force-authorized**).

**Recommended Action** Disable the SPAN destination on the interface and retry Dot1x.

**Error Message** DOT1X-5-ERR\_TRUNK: Dot1x can not be enabled on Trunk port

**Explanation** Because this port is a trunk port, **dot1x port-control** could not enable state with **auto** (or disable state with **force-authorized**).

**Recommended Action** Disable trunking on the interface and then try Dot1x.

**Error Message** DOT1X-5-ERR\_TUNNEL:Dot1x can not be enabled on 802.1q tunnelling enabled ports

**Explanation** Dot1x could not be enabled on the dot1q tunneling enabled port. This condition is caused by trying to set Dot1x port-control to **auto** or **force-unauthorized (force\_unauth)** mode on a 802.1q tunnel enabled port, which is not allowed.

**Recommended Action** Disable 802.1q tunneling on the interface and then try Dot1x.

**Error Message** DOT1X-5-ERR\_VLAN\_NOT\_ASSIGNABLE: RADIUS tried to assign a VLAN to dot1x port [char] whose VLAN cannot be assigned

**Explanation** Because this port is configured so that a VLAN cannot be changed, the RADIUS server failed when it attempted to assign a VLAN to a client attached to this port. For example, this port could be a routed port.

**Recommended Action** No action is required.

**Error Message** DOT1X-5-ERR\_VLAN\_NOT\_FOUND: RADIUS tried to assign non-existent VLAN name [char] to dot1x port

**Explanation** The RADIUS server tried to assign a VLAN to a client on a port, but the VLAN name was not found in the VTP database.

**Recommended Action** No action is required.

**Error Message** DOT1X-5-ERR\_VLAN\_RSPAN\_CONFIGURED: VLAN [dec] is configured as a Remote SPAN VLAN

**Explanation** Remote SPAN should not be enabled on a VLAN in which ports are configured with Dot1x enabled.

**Recommended Action** Either disable Remote SPAN configuration on the VLAN or disable Dot1x on all the ports in this VLAN.

**Error Message** DOT1X-5-ERR\_VVID: Dot1x can not be enabled on ports with a voice VLAN configured

**Explanation** Dot1x cannot coexist with voice VLANs on the same port.

**Recommended Action** No action is required.

**Error Message** DOT1X-5-INVALID\_INPUT: Dot1x Interface parameter is Invalid on interface [char]

**Explanation** The parameter specified for the Dot1X interface is not valid (it could be outside the range of valid values).

**Recommended Action** Try again, using a valid value. See the CLI help to find out the valid Dot1x parameters.

**Error Message** DOT1X-5-INVALID\_MAC: Invalid MAC address(zero

**Explanation** Authentication is allowed for an invalid source MAC address, because it is non-zero, not broadcast, and not a multicast MAC address.

**Recommended Action** No action is required.

**Error Message** DOT1X-5-NOT\_DOT1X\_CAPABLE: Dot1x disabled on interface [char] because it is not an Ethernet interface

**Explanation** Dot1x can be enabled on Ethernet module interfaces only.

**Recommended Action** Enable Dot1x authentication on Ethernet interfaces only.

**Error Message** DOT1X-5-SECURITY\_VIOLATION: Security violation on interface [char]

**Explanation** The port is configured in Single Host mode, so any new host being added to this interface results in a security violation and the port is shut down.

**Recommended Action** Ensure that the port is configured to use only one host. Enter **shut** followed by **no shut** to restart the port.

## DTP Messages

This section contains the Dynamic Trunking Protocol (DTP) messages.

### DTP-4

**Error Message** DTP-4-MEM\_UNAVAIL:Memory not available to perform the trunk negotiation action

**Explanation** The system is unable to negotiate trunks because of a lack of memory.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

**Error Message** DTP-4-TMRERR:An internal timer error occurred when trunking on interface [char]

**Explanation** Occasionally, a timer used by the trunking protocol expires unexpectedly. This problem is corrected internally.

**Recommended Action** This problem has no long-term ramifications. However, if further trunking problems persist, you should reload the device.

**Error Message** DTP-4-UNKN\_ERR:An unknown operational error occurred

**Explanation** This message indicates that the system is unable to negotiate trunks because an internal operation generated an error that the protocol (DTP, in this case) did not expect to handle.

**Recommended Action** Reload the device.

## DTP-5

**Error Message** DTP-5-ILGLCFG:Illegal config(on

**Explanation** The two ports on the link are set to the ON mode, but one is set to 802.1Q encapsulation, while the other is set to ISL encapsulation. When both ports on a link are set to the ON mode, their encapsulation types must match.

**Recommended Action** Configure both ports on the link to have the same encapsulation type.

**Error Message** DTP-5-NONTRUNKPORTON:Port [dec]/[chars] has become non-trunk

**Explanation** The interface [dec] / [chars] is nontrunked. [dec] / [chars] is the module number/interface range.

**Recommended Action** This is an informational message. No action is required.

**Error Message** DTP-5-TRUNKPORTCHG:Port [dec]/[chars] has changed from [chars] trunk to [chars] trunk

**Explanation** The encapsulation type of the trunk has changed. *dec* is the module number, the first *chars* is the interface number, the second *chars* is the original encapsulation type, and the third *chars* is the new encapsulation type.

**Recommended Action** This is an informational message. No action is required

**Error Message** DTP-5-TRUNKPORTON:Port [dec]/[chars] has become trunk

**Explanation** This message indicates that the interface [dec] / [chars] is trunked. [dec] / [chars] is the module number/interface range.

**Recommended Action** This is an informational message. No action is required.

# EBM Messages

This section contains the Ethernet bridge management (EBM) messages.

## EBM-3

**Error Message** C4K\_EBM-3-CANTALLOCATEEBMPORT:No EbmPort memory to allocate EbmPort for PimPort [char]

**Explanation** There is insufficient memory for information associated with the specified port.

**Recommended Action** Install additional memory.

**Error Message** C4K\_EBM-3-CANTALLOCATEIENODE:No interposition table memory to add entry for addr %ea

**Explanation** There is insufficient memory for this internal data structure.

**Recommended Action** Install additional memory.

**Error Message** C4K\_EBM-3-CANTALLOCATEIGMPGROUPENTRY:No igmp group memory to add new group entry for addr [mac-addr]

**Explanation** Insufficient memory exists to support additional Internet Group Management Protocol (IGMP) group entries. This is happening because you may have created a large number of IGMP groups.

**Recommended Action** Either install additional memory or reduce the number of IGMP groups.

**Error Message** C4K\_EBM-3-CANTALLOCATEPORTHOSTENTRY:No port host table memory to add entry for addr [mac-addr] / [mac-addr]

**Explanation** Insufficient memory exists for this internal data structure.

**Recommended Action** Install additional memory.

**Error Message** C4K\_EBM-3-CANTALLOCATEVLANGROUPENTRY:No vlan group table memory to add entry for addr %ea

**Explanation** Insufficient memory exists to support additional layer 2 group entries corresponding to IP multicast groups.

**Recommended Action** Install additional memory. If memory is unavailable, turn off Cisco Group Management Protocol (CGMP)/Internet Group Management Protocol (IGMP).

**Error Message** C4K\_EBM-3-CANTALLOCATEVLANHOSTENTRY:No vlan host table memory to add entry for addr %ea

**Explanation** Insufficient memory exists to support additional host addresses.

**Recommended Action** Install additional memory.

## EBM-4

**Error Message** C4K\_EBM-4-HOSTFLAPPING:Host [mac-addr] in vlan [dec] is flapping between port [char] and port [char]

**Explanation** The specified host is detected as a source address on multiple ports. Normally, a host is supposed to be learned on only one port. The most common cause of this condition is spanning tree loops. All traffic from the specified host is temporarily dropped. After 15 seconds, forwarding is reenabled.

**Recommended Action** If the problem persists, the traffic from the problem host will continue to be dropped indefinitely.

**Error Message** C4K\_EBM-4-ZEROETHERADDR:Filtering Ethernet MAC address of value zero from agent host table interface (port: [char])

**Explanation** The switch has learned about a host with the MAC address 00:00:00:00:00:00. This is not a valid MAC address and was probably generated by some non-IEEE 802.1d-compliant hardware or software in the network.

The host sort algorithm does not sort hosts with MAC addresses with all zeros (00:00:00:00:00:00), so a MAC address with all zeros is not listed in the learned host table. A request to show learned hosts, either by the **show cam dynamic** command or by an SNMP request, will not list a MAC address with all zeros.

**Recommended Action** Track down the source of the bad MAC address, because it might cause other problems.

## EtherChannel Messages

This section contains the EtherChannel (EC) messages.

## EC-4

**Error Message** EC-4-NOMEM:Not enough memory available for [char]

**Explanation** The Port Aggregation Protocol or Ether Channel could not obtain the memory it needed.

**Recommended Action** No action is required.

## EC-5

**Error Message** EC-5-BUNDLE:Interface [char] joined port-channel [char]

**Explanation** The interface joined the bundle.

**Recommended Action** This is an informational message. No action is required.

**Error Message** EC-5-CANNOT\_ALLOCATE\_AGGREGATOR: Aggregator limit reached

**Explanation** A new aggregator cannot be allocated in the group.

**Recommended Action** Change the port attributes of the ports in the group so that they match and join the same aggregator.

**Error Message** EC-5-CANNOT\_BUNDLE1:Port-channel [char] is admin-down

**Explanation** The admin state of the port channel is down.

**Recommended Action** Enable the port channel to form a bundle.

**Error Message** EC-5-CANNOT\_BUNDLE2:[char] is not compatible with [char] and will be suspended ([char])

**Explanation** The port has different port attributes from those of the port channel (or the ports within the port channel).

**Recommended Action** Adjust the port attributes to match those of the port-channel.

**Error Message** EC-5-CANNOT\_BUNDLE\_LACP: [char] is not compatible with aggregators in channel [dec] and cannot attach to them ([char])

**Explanation** The port has different port-attributes than other ports within the port-channel.

**Recommended Action** Match the port-attributes to that of port-channel.

**Error Message** EC-5-CANNOT\_BUNDLE\_QOS: Removed [char] from port channel because a QoS policy cannot be supported across multiple DFC cards.

**Explanation** The port specified in the error message cannot join a port channel, because the QoS policy attached to the port channel cannot support multiple DFC cards.

**Recommended Action** Place the port in another port channel, or remove the QoS policy from the port channel.

**Error Message** EC-5-ERRPROT: Channel protocol mismatch for interface [char] in group [dec]: the interface can not be added to the channel group

**Explanation** The interface can not be added to the channel-group with the specified mode.

**Recommended Action** Change the channel-group or the mode for the interface.

**Error Message** EC-5-ERRPROT2: Command rejected: the interface [char] is already part of a channel with a different type of protocol enabled

**Explanation** The interface can not be selected for the specified protocol, because it is already part of a channel with a different type of protocol enabled.

**Recommended Action** Remove the interface from the channel group.

**Error Message** EC-5-ERRPROT3: Command rejected: the interface [char] is already part of a channel

**Explanation** The interface can not be unselected for the specified protocol, because is already part of a channel.

**Recommended Action** Remove the interface from the channel group.

**Error Message** EC-5-L3DONTBNDL1:[char] suspended: PAgP not enabled on the remote port.

**Explanation** PAgP is enabled on the layer 3 interface, but the partner port does not have PAgP enabled. In this mode, the port is put in a suspended state.

**Recommended Action** Enable PAgP on remote side.

**Error Message** EC-5-L3DONTBNDL2:[char] suspended: incompatible partner port with [char]

**Explanation** For a port to join a bundle, the local and partner group capabilities (GC)s should match the ports in the bundle. In this case, the partner port's GC differs from some of the other ports in the bundle.

**Recommended Action** Configure all the ports so that their partner GCs match.

**Error Message** EC-5-L3DONTBNDL3:[char] suspended:LACP currently not enabled on the remote port.

**Explanation** LACP is enabled on an L3 interface, but software has detected that the partner port does not have LACP enabled. In this mode, the L3 interface is put in a suspended state.

**Recommended Action** Enable LACP on the remote side.

**Error Message** EC-5-L3PORTDOWN: Shutting down [char] as it's port-channel is admin-down

**Explanation** The layer 3 port's admin state is ruled by the admin state of its aggregate port (agport). The agport's admin state is down, so the port's admin state is going down as well. This process occurs automatically.

**Recommended Action** Change the agport's admin state to up.

**Error Message** EC-5-L3STAYDOWN:[char] will remain down as it's port-channel [char] is admin-down

**Explanation** For layer 3 ports and aggregate ports (agports), the admin state of the agport overrides that of the port. If the agport's admin state is down, the admin state of the ports in the agport must go down as well.

**Recommended Action** Enable the agport.

**Error Message** EC-5-NOLACP: Invalid EC mode

**Explanation** LACP is not included in the image. You cannot set EC mode to active or passive.

**Recommended Action** Upgrade to an image with LACP or set the mode to On.

**Error Message** EC-5-NOPAGP: Invalid EC mode

**Explanation** PAgP is not included in the image, so the EtherChannel mode cannot be set to desirable/auto.

**Recommended Action** Either obtain an image that includes PAgP or set the mode to ON.

**Error Message** EC-5-STAYDOWN: no-shut not allowed on [char]. Module [dec] not online

**Explanation** An interface with etherchannel configuration cannot be admin-up if its port-channel is admin-down. This is a case where we know that an interface has etherchannel configuration, but still have no information about its port-channel. To be safe, we disallow no-shut in this case.

**Recommended Action** Wait for the module to come online.

**Error Message** EC-5-UNBUNDLE: Interface [char] left the port-channel [char]

**Explanation** The interface fell off the bundle.

**Recommended Action** This is an informational message. No action is required.

**Error Message** EC-5-UNSUITABLE:[char] will not join any port-channel

**Explanation** The configurations for Portfast, VMPS, and Dest-SPAN are incompatible with EtherChannel.

**Recommended Action** Unconfigure the three features so that the port can form a bundle.

## GBIC Messages

This section contains the Gigabit Interface Convertor (GBIC) manager (GBICMAN) messages.

### GBICMAN-3

**Error Message** C4K\_GBICMAN-3-BADGBIC:Port [char]: Gbic's seeeprom is bad, try reinserting: vendor: [char], p/n: [char], s/n: [char]

**Explanation** The GBIC/SFP serial EEPROM data is corrupted. GBIC stands for Gigabit Interface Convertor and SFP stands for Small Form-factor Pluggables.

**Recommended Action** Remove and reinsert the GBIC.

**Error Message** C4K\_GBICMAN-3-GBICSEEPROMREADFAILED:Failed to read gbic serial eeprom on port [char], try reinserting

**Explanation** The switch cannot identify the newly inserted GBIC/SFP. GBIC stands for Gigabit Interface Convertor and SFP stands for Small Form-factor Pluggables.

**Recommended Action** Remove and reinsert the GBIC or SFP.

**Error Message** C4K\_GBICMAN-3-S2WERROR:S2w bus error while looking for changed gbics on port [char]

**Explanation** There was an internal communication error when the software read the GBIC/SFP control data.

**Recommended Action** Contact your technical support representative.

# Hardware ACL Management Messages

This section contains the hardware ACL manager (HWACLMAN) messages.

**Error Message** C4K\_HWACLMAN-4-ACLHWPROGERR:[char] [char] - hardware TCAM limit, [char]

**Explanation** Some ACL-based feature(s) could not be fully programmed into hardware. Packets that traverse these feature(s) will complete processing in software. (If the feature is a policy map, then QoS will be completely disabled (on the specific interface)).

This message lists the impacted feature; further message(s) will list the specific failure that occurred.

**Recommended Action** None.

**Error Message** C4K\_HWACLMAN-4-ACLHWPROGERRREASON:[char] [char] - [char]

**Explanation** This message lists the specific failure that prevented an ACL-based feature(s) from being fully programmed into hardware.

**Recommended Action** Informational message only, no action is required.

**Error Message** C4K\_HWACLMAN-4-WARNINGSTRING:[char]

**Explanation** A warning message has been displayed.

**Recommended Action** See the message string [char] for more information.

# Hardware Port Management Message

This section contains the hardware port management (HWPORTMAN) message.

## HWPORTMAN-4

**Error Message** C4K\_HWPORTMAN-4-BLOCKEDTXQUEUE:Blocked transmit queue HwTxQId[dec] on [char], count=[dec]

**Explanation** This rate-limited message indicates that a transmit queue on a port is blocked for reasons other than “paused.”

**Error Message** C4K\_HWPORTMAN-4-CHECKFORDUPLEXMISMATCH:[char] Tx-Queue could be blocked due to duplex mismatch

**Explanation** The TxQueue on this port could be blocked due to a duplex mismatch. If that is the case, fixing duplex mismatch should unblock the tx-queue.

## HWPORTMAN-7

**Error Message** C4K\_HWPORTMAN-7-FLOWCONTROLPACKET:Received invalid flow control packet from [char] da [mac-addr] sa [mac-addr] ethertype [hex] opcode [hex]

**Explanation** The Supervisor Engine forwarded a malformed flow control packet to software. The hardware does this if one or both of the Ethertype and flow control/operation code are incorrect. For flow control packets, the expected Ethertype is 0x8808 and the expected operation code is 1 (xoff).

**Recommended Action** If devices connected to the switch are capable of generating flow control and are configured to do so, verify that the devices generate well-formed flow control packets with valid Ethertype and operation code fields.

## NetFlow Error Messages

**Error Message** C4K\_HWNETFLOWMAN-4-FATALERRORADDRS:Netflow Fatal Error Info: Interrupt Status ( [char] ), FDT1 Err Addr ( [char] ), FDT2 Err Addr ( [char] ), FLD Err Addr ( [char] )

**Explanation** This message is seen in conjunction with the C4K\_HWNETFLOWMAN-4-FATALERRORINTERRUPTSEEN message. If this message appears, be sure to capture the complete message information so you'll be able to share it with Cisco TAC. The information from the [char] variables can be very helpful in diagnosing the problem.

**Error Message** C4K\_HWNETFLOWMAN-4-FATALERRORINTERRUPTSEEN: Netflow Fatal Error interrupt seen

**Explanation** This is an extremely rare error. This message is seen when the NetFlow Services Card sends a fatal interrupt call to the supervisor engine, which can crash the service card, the supervisor engine, and the entire switch.

**Error Message** C4K\_HWNETFLOWMAN-4-FLOWSLOSTERR: Netflow stats lost due to full hw flow table. [char] [dec] packets.

**Explanation** If the cache is full, then some flow statistics will be lost. This message periodically informs users about the total collected. If the counter that tracks the lost statistics has itself overflowed, an accurate count of total lost flows is not available.

**Recommended Action** None. This is an informational message.

# ILC Protocol Errors

**Error Message** C4K\_ILC-3-ILCPROTOCOLERROR: Service Module failed S2W protocol, error [dec], state [dec]

**Explanation** S2W communication with an intelligent line card deviated from the defined protocol.

## Interface Descriptor Block Management Messages

This section contains the interface descriptor block (IDB) management (IDBMAN) messages.

**Error Message** IDBMAN-3-AGGPORTMISMATCH:[char]:[char]([dec] / [dec]) does match internal slot/port state [char]([dec] / [dec])

**Explanation** Due to an internal error, the software used an invalid aggregate port.

**Error Message** IDBMAN-3-DELETEDAGGPORT:[char]([dec] / [dec]) Group [dec] has been deleted

**Explanation** Due to an internal error, a deleted interface was reused for a new aggregate port.

**Error Message** IDBMAN-3-INVALIDAGGPORTBANDWIDTH:[char]([dec] / [dec]) has an invalid bandwidth value of [dec]

**Explanation** Due to an internal error, an invalid bandwidth was used for an aggregate port.

**Error Message** IDBMAN-3-INVALIDPORT:[char]:trying to use invalid port number [dec] (Max [dec])

**Explanation** Due to an internal error, the software used an invalid port number.

**Error Message** IDBMAN-3-INVALIDVLAN:[char]:trying to use invalid Vlan [dec]

**Explanation** Due to an internal error, the software used an invalid VLAN.

**Error Message** IDBMAN-3-NOTANAGGPORT:[char]([dec] / [dec]) is not an aggregate port

**Explanation** Due to an internal error, an interface that is not an aggregate port was used for aggregate port operations.

**Error Message** IDBMAN-3-PORTNOTINAGGPORT:[char]([dec] / [dec]) is not present in Aggport [char]([dec] / [dec])

**Explanation** Due to an internal error, an invalid port was considered to belong to an aggregate port.

**Error Message** IDBMAN-3-VLANINUSE:[char]:Vlan [dec] is in use by [char]

**Explanation** Each layer 3 interface has a VLAN associated with it. This message indicates that the VLAN associated with the interface is being used by some other layer 3 interface.

**Recommended Action** This is an informational message only. No action is required.

**Error Message** IDBMAN-3-VLANNOTSET:[char]:Vlan [dec] not set since it already has Vlan [dec]

**Explanation** Due to an internal error, an interface set its VLAN to a non-requested value.

## IDBMAN-4

**Error Message** IDBMAN-4-ACTIVEPORTSINAGGPORT:[char]([dec] / [dec]) has [dec] active ports

**Explanation** Due to an internal error, an aggregate port with active ports was removed.

## IDBMAN-6

**Error Message** DBMAN-6-VLANMAPPED:Vlan [dec] is mapped to [char]

**Explanation** The given VLAN is mapped to the given interface.

**Recommended Action** This is an informational message only. No action is required.

# IOS ACL Management

**Error Message** C4K\_IOSACLMAN-4-ACLTYPEMISMATCH:Acl [char] was earlier attached as [char] Acl. Please unconfigure all its before using it as a [char] Acl

**Explanation** This message is logged if you attach a named ACL as one type, then delete the ACL and configure an ACL of a different type with the same name. For example, you configure a named IP ACL using the name DefaultAcl and attach it to a router port. You then delete the ACL DefaultAcl by entering **no ip access-list extended DefaultAcl**. Then you could configure a MAC ACL using the same name. This message is displayed when you try to configure any ACEs in the MAC ACL.

**Recommended Action** Remove all configurations where the ACL is being used as an IP ACL before configuring a MAC ACL with the same name.

# IOS IGMP Snoop Manager

**Error Message** C4K\_IOSIGMPSNOOPMAN-3-NOSPACELEFT:No igmp group memory to add new group entry

**Explanation** Insufficient memory exists to support additional IGMP group entries, which are added automatically when you run CGMP/IGMP.

**Recommended Action** Install additional memory or reduce the number of IGMP groups.

## IOS Interface Messages

This section contains the Catalyst 4000 IOS interface operation (IOSINTF) messages.

### IOSINTF-4

**Error Message** C4K\_IOSINTF-4-INTVLANALLOCFAIL:Failed to allocate internal VLAN for interface [char]. The interface will remain down.

**Explanation** When a routed port or port channel interface is enabled, it must map to an internal VLAN in order to operate. If there are no internal VLANs available when an interface is enabled, the interface remains down and this message is logged.

**Recommended Action** An internal VLAN can be freed up by disabling some other routed port or port channel interface or by deleting a user configured VLAN in the 1006 to 4094 range. Once a VLAN is made available, the interface will come up if it is disabled and re-enabled.

**Error Message** C4K\_IOSINTF-4-REFLEXIVEACLNOTSUPPORTED: Reflexive Acls are not supported. Ignoring the [char] entry.

**Explanation** Reflexive ACLs are not supported. ACEs with Evaluate and Reflect keywords are ignored.

**Recommended Action** Do not configure ACEs with Evaluate or Reflect keywords.

### IOSINTF-5

**Error Message** C4K\_IOSINTF-5-NOTXVLAN:Router Port [char] has no internal vlan assigned to transmit packet

**Explanation** The specified layer 3 interface does not have an assigned internal VLAN because duplicate IP network assignments exist on different layer 3 interfaces.

**Recommended Action** Remove the duplicate IP network configured on the interface. Then, assign the correct IP network and issue the **no shutdown** command on this interface.

**Error Message** C4K\_IOSINTF-5-STALEPHYPORT:Dropping packets to be transmitted out on port [char] (Linecard in Slot [dec] may have been removed)

**Explanation** Occasionally, during hot-swapping operations, a previously queued packet is transmitted after the module in that slot has already been removed. By that time, the module no longer exists, indicating that the packets are being dropped.

**Recommended Action** If the problem persists even without any hot-swapping operations, please contact your technical support representative.

**Error Message** C4K\_IOSINTF-5-TXL3PKTONPHYPORT:Transmitting L3 packet on a physical port [char] that is part of [char] ([dec] packets). Make sure the physical port in the L3 port channel does not have an ip addresses configured on it.

**Explanation** The layer 3 protocols operate at the logical, not the physical, port level. This message indicates that layer 3 protocol packets were sent on a physical port that is part of a bundle. This situation can happen if there is a misconfiguration; a physical port that is part of a layer 3 port channel may have been assigned an IP address.

**Error Message** C4K\_IOSINTF-5-TXPKTDROPONETHERCHANNEL:Dropping transmit packet out of interface [char]

**Explanation** A packet that will be transmitted out of a port channel is dropped during transitions in the port channel membership. This situation occurs when a packet is transmitted out of the aggregate port by higher layer protocols but the software cannot find the specific state information. This can temporarily happen when physical ports transition into or out of the port channel membership.

**Recommended Action** If the problem persists, contact your technical support representative.

## IOS IP Route Manager Messages

This section contains the Catalyst 4000 IOS IP route manager (IOSIPROUTEMAN) messages.

### IOSIPROUTEMAN-3

**Error Message** C4K\_IOSIPROUTEMAN-3-ADJMANNOMOREADJS:AdjMan:hardware adjacency resources exhausted, performance may be degraded.

**Explanation** Hardware adjacency resources have been exhausted. The Supervisor Engine will forward packets to this adjacency in software. This action will likely represent a significant performance degradation.

**Recommended Action** Reduce the number of adjacencies loaded into the routing table, and then clear the IP routing table.

**Error Message** C4K\_IOSIPROUTEMAN-3-FIBCANTALLOCATEFIBADJ:IOS IP Route Manager:No memory available to allocate FIB Adjacency for [object-info]

**Explanation** Insufficient memory exists to allocate space for this adjacency; the Supervisor Engine III will forward it in the software instead.

**Error Message** C4K\_IOSIPROUTEMAN-3-FIBCANTALLOCATEFIBENTRY:IOS IP Route Manager:No memory available to allocate FIB Entry for [ip-addr]

**Explanation** Insufficient memory exists to allocate space for the route associated with this network. Contact your technical support representative as memory leaks might exist.

**Error Message** C4K\_IOSIPROUTEMAN-3-PBRDOESNOTSUPPORTQOS:Route-map '[char]' on interface '[char]' specifies Quality of Service rewriting which is not supported via Policy-Based Routing on this platform. Please use the Quality of Service feature instead. This action on the specified route map will be ignored.

**Explanation** The Cat4000 does not support QoS services implemented using PBR route-maps.

**Recommended Action** This feature should be configured using the QoS policy-maps and class-maps instead. The PBR route-map specified will be loaded, but references to QoS services will be ignored.

## IOS Layer 2 Manager Message

This section contains the Catalyst 4000 IOS Layer 2 manager (IOSL2MAN) message.

**Error Message** C4K\_IOSL2MAN-3-VLANCREATIONERROR:Unable to create new vlan [dec]

**Explanation** The switch has run out of the memory it uses for allocating new VLANs, so new VLAN allocation has failed.

**Recommended Action** There could be a memory leak. Contact your technical support representative.

## IOS Module Port Manager Messages

**Error Message** C4K\_IOSMODPORTMAN-2-INLINEPOWEROFF:Inline power to the switch has been turned off

**Explanation** Software has detected that the passthrough current is disabled. This will cause all phones drawing inline power from the switch to be powered off.

**Error Message** C4K\_IOSMODPORTMAN-3-MIXINPOWERDETECTED:Power supplies in the chassis are of different types (AC/DC) or wattage

**Explanation** IOS has detected different kinds of power supplies in the chassis. In a 4006 chassis, the power values default to the wattage of the weakest power supply. In all other chassis, the second power supply is completely ignored. We do not recommend mixing power supplies of different wattages.

**Error Message** C4K\_IOSMODPORTMAN-4-INLINEPOWERRESTORED:Resuming normal phone operation since inline power has been restored

**Explanation** The inline power supply to the switch has been restored and normal phone operation will resume.

**Error Message** C4K\_IOSMODPORTMAN-4-POWERSUPPLYBAD:Power Supply [dec] has failed

**Explanation** This message indicates that a power supply has failed.

**Recommended Action** Replace the power supply as soon as possible.

**Error Message** C4K\_IOSMODPORTMAN-4-POWERSUPPLYREMOVED:Power Supply [dec] has been removed

**Explanation** This informational message indicates that the power supply has been removed. No action is required.

**Error Message** C4K\_IOSMODPORTMAN-6-MODULEOFFLINE: Module [dec] is offline

**Explanation** This is an informational message only.

**Recommended Action** No action is required.

**Error Message** C4K\_IOSMODPORTMAN-6-MODULEONLINE: Module [dec] is online

**Explanation** This is an informational message only.

**Recommended Action** No action is required.

**Error Message** C4K\_IOSMODPORTMAN-6-POWERSUPPLYGOOD:Power Supply [dec] is Okay

**Explanation** This is an informational message indicating that a failed power supply has been fixed.

**Recommended Action** No action is required.

**Error Message** C4K\_IOSMODPORTMAN-6-POWERSUPPLYINSERTED:Power Supply [dec] has been inserted

**Explanation** This informational message indicates that the power supply has been inserted. No action is required.

## IOS System Messages

This section contains the Catalyst 4000 IOS system manager (IOSSYSMAN) messages.

### IOSSYSMAN-0

**Error Message** C4K\_IOSSYSMAN-0-FATALERRORCRASH:Forced crash due to: [char]

**Explanation** The system has become unusable due to software and/or hardware failures.

**Recommended Action** Analyze the memory dump, if any, and determine the cause of the failure; or contact your technical support representative.

### IOSSYSMAN-3

**Error Message** C4K\_IOSSYSMAN-3-ENVVARNAMETOOLONG:Name of environment variable

**Explanation** The environment variable name is too long.

**Recommended Action** Use the **unset** command to shorten it.

**Error Message** C4K\_IOSSYSMAN-3-OUTOFFPACKETHEADERS:Cannot allocate buffer for a packet header

**Explanation** The system cannot allocate a buffer for the packet header.

**Recommended Action** Call Cisco TAC and be ready to provide the configuration information for the switch.

## IOSSYSMAN-4

**Error Message** C4K\_IOSSYSMAN-4-ENVVARTOOLONG: Value of env. variable [char] is too long

**Explanation** The software writes certain configuration values to the NVRAM. This message indicates that the variable name being stored is too long (greater than 4096 bytes).

**Recommended Action** Boot the system into ROMMON, and at the ROMMON prompt enter the **unset** command to change the environment variable name to one that is shorter.

**Error Message** C4K\_IOSSYSMAN-4-NOSPACEFORENVVAR: Env. variable [char] cannot be set: no space

**Explanation** The software writes certain configuration values to the NVRAM. This message indicates that there is no more space available to write an environment variable.

**Recommended Action** Make the system boot into ROMMON, and at the ROMMON prompt use the **unset** command to remove unused environment variables to reclaim the space.

## IP Routing Messages

This section contains the Catalyst 4000 IOS IP routing manager (IPROUTEMAN) messages.

### IPROUTEMAN-3

**Error Message** C4K\_IPROUTEMAN-3-CANTALLOCATEIPETHERADDRENTY:IP Route Manager:No memory to add Router Port MAC Address, numInUse: [dec]

**Explanation** Each router port in the system can listen to secondary MAC addresses as the “router's MAC address,” a process that is useful for protocols like Hot Standby Routing Protocol (HSRP). This message indicates that the system has run out of its allotted memory for holding secondary MAC addresses.

**Error Message** C4K\_IPROUTEMAN-3-FIBADJMANDUPLICATEADJ:FIB Entry:Tried to create a duplicate adj for key [object-info]

**Explanation** A request was made to add a duplicate adjacency to the Forwarding Information Base (FIB) adjacency database.

**Error Message** C4K\_IPROUTEMAN-3-FIBADJMANINUSEDELETION:FIB Adjacency Manager:Attempted to delete FIB Adjacency Id [dec] which is in use

**Explanation** A request was made to delete an adjacency from the Forwarding Information Base (FIB) database while that adjacency was still referenced by a routing table entry.

**Error Message** C4K\_IROUTEMAN-3-FIBADJMANNONEXISTENTDELETION:FIB Adjacency Manager:Attempted to delete FIB Adjacency Id [dec] which does not exist

**Explanation** A request was made to delete an adjacency from the platform Forwarding Information Base (FIB) that did not exist.

**Error Message** C4K\_IROUTEMAN-3-FIBDUPLICATEENTRY:FIB:Attempt to create a duplicate FIB Entry for [ip-addr]

**Explanation** A request to add a duplicate routing table entry to the Forwarding Information Base (FIB) database was detected.

**Error Message** C4K\_IROUTEMAN-3-FIBENTRYNOSUCHADJTODELETE:FIB Entry:Couldn't delete adj [ip-addr] from FIB Entry [ip-addr], no such adj.

**Explanation** An attempt was made to delete an adjacency from a routing table entry in the platform Forwarding Information Base (FIB) and the adjacency was not found.

**Error Message** C4K\_IROUTEMAN-3-FIBENTRYTOOMANYADJ:FIBEntry:Too many adjacencies on FIBEntry for [ip-addr], tried to add adj [ip-addr]

**Explanation** An attempt was made to add another adjacency to a routing table entry in the platform Forwarding Information Base (FIB) when that entry was already at the maximum allowed value.

**Error Message** C4K\_IROUTEMAN-3-FIBNONEXISTENTDELETION:FIB:Attempted to delete FIB Entry Id [dec] which does not exist

**Explanation** A request was made to delete a nonexistent routing table entry from the platform Forwarding Information Base (FIB).

**Error Message** C4K\_IROUTEMAN-3-NOMOREK2FIBADJS:K2FibUnicast:no more K2FibAdjs available, using punt adj instead for [ip-addr] route.

**Explanation** Hardware resources for adjacencies have been exhausted; switching will take place in software instead. Performance might be degraded.

## IROUTEMAN-4

**Error Message** C4K\_IROUTEMAN-4-CANTALLOCATEFIBENTRY:FIB:No memory available to allocate FIB Entry for [ip-addr]

**Explanation** Insufficient memory exists to allocate space for the route associated with this network.

**Recommended Action** You might need to install additional memory.

# Layer 3 Hardware Forwarding Messages

This section contains the layer 3 hardware forwarding (L3HWFORWARDING) messages.

**Error Message** C4K\_L3HWFORWARDING-2-FWDCAMFULL:L3 routing table is full. Switching to software forwarding.

**Explanation** The hardware routing table is full; forwarding takes place in software instead. Performance is likely to be degraded.

**Recommended Action** Reduce the size of the routing table. Then, use the **ip cef** command to return to hardware forwarding.

**Error Message** C4K\_L3HWFORWARDING-3-FWDCAMCONSISTENCYCHECKFAILED: [char] FwdCam Consistency Check Failed: index [dec]

**Explanation** There was a consistency check failure. If this error happens frequently, it could indicate faulty hardware.

**Recommended Action** None. This is an informational message.

**Error Message** C4K\_L3HWFORWARDING-3-MASKTABLECONSISTENCYCHECKFAILED: MaskTable Consistency Check Failed: block [dec] index [dec]

**Explanation** There was a mask table consistency check failure. If this error happens frequently, it could indicate faulty hardware.

**Error Message** C4K\_L3HWFORWARDING-3-MASKTABLEREGIONCONSISTENCYCHECKFAILED: MaskTable Consistency Check Failed: region [object-info]

**Explanation** There is a consistency check failure in the mask table. The error is located in the region specified by [object-info].

**Recommended Action** None. This is an auxiliary message to help in troubleshooting.

**Error Message** C4K\_L3HWFORWARDING-3-NOMOREK2FIBADJS:No hardware adjacency resource available for route [ip-addr]

**Explanation** The hardware adjacency table does not have enough available space to allocate the adjacency set for this route. Forwarding will take place in software instead.

**Error Message** C4K\_L3HWFORWARDING-3-PBRBLOCKFAILEDTOADDFLATAACE:K2FibPbrBlock:failed to add FlatAce [object-info] to block [dec]

**Explanation** This is an internal error message that indicates corruption within the policy-routing data structures. If this message appears, contact Cisco TAC immediately. This memory corruption will probably crash the switch soon.

**Error Message** C4K\_L3HWFORWARDING-3-PBRBLOCKFAILEDTODELETEFLATACE:K2FibPbrBlock:failed to remove FlatAce [object-info] from block [dec]

**Explanation** This is an internal error message that indicates corruption within the policy-routing data structures. If this message appears, contact Cisco TAC immediately. This memory corruption will probably crash the switch soon.

**Error Message** C4K\_L3HWFORWARDING-3-PBRFLATTENINGFAILED:Software resource exhaustion trying to load route-map for interface [char] ([dec] )

**Explanation** The switch ran out of memory resources when trying to process the access-list for a route map.

**Error Message** C4K\_L3HWFORWARDING-3-PBRNOPBRCAMLEFT: K2FibPbr: attempted addition of [dec] blocks to PBR cam region failed, only managed to get [dec] for FRM [char]

**Explanation** There is no longer enough free memory to program a new route map.

**Recommended Action** Remove unused portions of the configuration in order to free up the memory needed.

**Error Message** C4K\_L3HWFORWARDING-3-PBRPUNTINGVLAN:K2FibPbr:exceeded maximum TCAM usage, all IP unicast traffic on vlan [dec] will be switched in software.

**Explanation** The hardware policy based routing (PBR) forwarding engine has insufficient resources to handle the route map for the specified VLAN. All unicast IP traffic for that VLAN will be switched in software.

**Error Message** C4K\_L3HWFORWARDING-4-FLOWCACHEOUTOFSPACEFORFLOWCACHEENTRY: K2FibFlowCache: insufficient space to store flow of type [object-info] with label [packet-info]

**Explanation** The software could not load a flow cache entry into the hardware due to lack of free memory.

**Error Message** C4K\_L3HWFORWARDING-6-PBRNOLONGERPUNTINGVLAN:K2FibPbr:sufficient TCAM space has been found to handle PBR for vlan [dec] in hardware, no longer punting to software.

**Explanation** The hardware policy based routing (PBR) forwarding engine now has sufficient resources to handle the route map for the specified VLAN, hardware forwarding of unicast IP traffic has been restored.

**Recommended Action** No action is required.

# Module Management Protocol Messages

This section contains the module management protocol (LINECARDMGMTPROTOCOL) messages.

**Error Message** C4K\_LINECARDMGMTPROTOCOL-4-INITIALTIMEOUTWARNING:[char] - management request timed out.

**Explanation** Indicates communication problems with the module ASIC that fans out a single gigabit port to front-panel ports. A few messages are within tolerance levels.

**Error Message** C4K\_LINECARDMGMTPROTOCOL-4-ONGOINGTIMEOUTWARNING:[char] - consecutive management requests timed out.

**Explanation** Indicates persistent communication problems with the module ASIC that fans out a single gigabit port to front-panel ports.

**Recommended Action** Re-insert the module.

# Packet Processing Messages

This section contains the packet processing (PKTPROCESSING) messages.

## PKTPROCESSING-3

**Error Message** C4K\_PKTPROCESSING-3-INVALIDVLAN:Packet received on invalid Vlan from hardware. PortId [dec] [12-header] Vlan [dec] TagType [object-info]

**Explanation** The hardware sent a packet to the CPU, but the receiving VLAN was incorrect. This message indicates a hardware problem.

**Error Message** C4K\_PKTPROCESSING-3-OUTOFPACKETINFOTODRIVER: \ "Ran out of memory to send packet information to the driver that enqueues packets to hardware\ "

**Explanation** Transmit packets are probably stuck in a queue, and some of them are sent to multiple destinations. This wastes memory, so new packet information cannot be allocated.

**Error Message** C4K\_PKTPROCESSING-3-OUTOFFPACKETSTODRIVER: \ "Ran out of memory to send packets to the driver that enqueues packets to hardware\ "

**Explanation** Transmit packets are probably stuck in a queue, so new packets cannot be queued.

**Error Message** C4K\_PKTPROCESSING-3-UNEXPECTEDOUTPUTACLHIT:Packet hit output ACL but sent to CPU as a result of hardware input Acl processing [l2-header] Port char] Vlan [dec]

**Explanation** An inconsistent hardware state might exist. A packet was sent to the CPU due to input ACL processing by the hardware. Unexpectedly, the packet encountered output ACL processing.

**Error Message** C4K\_PKTPROCESSING-3-UNRECOGNIZEDEVENT:Packet received for an unimplemented event. CPU Subport [dec] TxQId [dec] PDD {[dec], [dec]}

**Explanation** The hardware sent a packet to the CPU, but the software did not recognize the event that triggered the packet to be sent.

## PKTPROCESSING-4

**Error Message** C4K\_PKTPROCESSING-4-ERRORPACKET:[char]

**Explanation** The software is unable to process a packet; it has been forwarded to the CPU instead. Because this event is unexpected, the packet is being dropped.

**Error Message** C4K\_PKTPROCESSING-4-INVALIDACLACTION:Unable to determine the ACL action to take because we ran out of memory. Address: src [mac-addr] dst [mac-addr]

**Explanation** There was not enough free memory to create a list of actions to perform on the packet. As a result, the packet was dropped.

**Error Message** C4K\_PKTPROCESSING-4-UNKNOWNBRIDGEORROUTE:Unable to determine whether to route or bridge replicated software-processed packet with source address [mac-addr] and destination address [mac-addr]

**Explanation** When a replicated packet is sent to the software by an output ACL, the hardware does not indicate whether the packet needs to be bridged or routed.

When resources are exhausted or when the ACLs programmed in the hardware cannot handle processing directly (such as ACLs matching TCP flags), the Supervisor Engine III sends the packets

to software for processing. If the software cannot determine whether to bridge or route, the packet might be dropped. This drop indicates that the packet was directed to a Hot Standby Routing Protocol (HSRP) router group MAC address.

**Error Message** C4K\_PKTPROCESSING-4-UNKNOWNSOURCELOCATIONFORBRIDGE:Unable to determine source host location of replicated software-processed packet with source address [mac-addr] and destination address [mac-addr]

**Explanation** When a replicated packet is sent by an output ACL to the software for processing, the hardware does not indicate the ingress port or VLAN ID.

When resources are exhausted or when the ACLs programmed in the hardware cannot handle processing directly (such as ACLs matching TCP flags), the Supervisor Engine III sends the packets to the software for processing. Without the ingress port identifier, the supervisor might forward the packet back out the port on which it was received, possibly creating network loops or other problems. If the switch is unable to infer the ingress port from other information, the packet is dropped.

## PKTPROCESSING-5

**Error Message** C4K\_PKTPROCESSING-5-NOTAPPLYINGACL:Not applying [input/output] Acl for packet [packet-info]

**Explanation** The software has not taken the ACL actions because it could not determine the correct ACL entry indicated by the hardware. The hardware-provided index of the ACL content addressable memory (CAM) indicates that the software needs to take the actions for the entry at that index. If the packet was queued in the hardware before being processed by the software, the index is out-of-date.

**Recommended Action** This message is informational only. No action is required.

## PKTPROCESSING-7

**Error Message** C4K\_PKTPROCESSING-7-ADJLOOKUPFAILED:Draining the backed up packets in CPU queue when we cleaned up FIB adjacencies. Last drained packet's source address [ip-addr] and destination address [ip-addr]

**Explanation** This could happen when the software processes the routed packets and the router port is shut down. The software can automatically repair adjacencies, but there was at least one packet in the queue that was lost.

**Recommended Action** This message is informational only. No action is required.

# PM Messages

This section contains the port manager (PM) messages.

## PM-2

**Error Message** PM-2-LOW\_SP\_MEM: Switch process available memory is less than [dec] bytes

**Explanation** The available memory for the switch processor dropped to a low level. Possibly too many Layer 2 VLANs are configured in the system.

**Recommended Action** Remove Layer 2 VLANs or other features from the system to reduce memory usage.

**Error Message** PM-2-NOMEM:Not enough memory available for [char]

**Explanation** The port manager subsystem could not obtain the memory it needed for the specified PM operation (where *char* is the PM operation ID).

**Error Message** PM-2-VLAN\_ADD:Failed to add VLAN [dec] - [char].

**Explanation** The VLAN was not added to VTP, because of the reason stated in the text string.

## PM-3

**Error Message** PM-3-ERR\_INCOMP\_PORT: [dec]/[dec] is set to inactive because [dec]/[dec] is a [char] port

**Explanation** The private host port can't be configured with trunk, private promiscuous, and span destination port on the same coil.

**Recommended Action** Try to configure the incompatible ports on different coils.

**Error Message** PM-3-INTERNALERROR:Port Manager Internal Software Error ([char]:[char]:[dec]:[char])

**Explanation** The access VLAN on the VMPS server is set to the same VLAN as a voice VLAN on the port. The access VLAN assignment on VMPS server should be different from voice VLAN.

**Recommended Action** Reset the VLAN assignments to remove the conflict.

## PM-4

**Error Message** PM-4-BAD\_APP\_ID:an invalid application id [dec] was detected

**Explanation** The port manager detected a request with an invalid application ID, where [dec] is the application ID.

**Error Message** PM-4-BAD\_APP\_REQ:an invalid [char] request by the '[char]' application was detected

**Explanation** The port manager detected an invalid request. The first [char] is the invalid request, and the second [char] is the application making the request.

**Error Message** PM-4-BAD\_CARD\_COOKIE:an invalid card cookie was detected

**Explanation** The port manager detected an invalid request.

**Error Message** PM-4-BAD\_CARD\_SLOT:an invalid card slot [dec] was detected

**Explanation** The port manager detected an invalid request on slot number [dec].

**Error Message** PM-4-BAD\_COOKIE:[char] was detected

**Explanation** The port manager detected an invalid request.

**Error Message** PM-4-BAD\_HA\_ENTRY\_EVENT: Invalid Host access entry event ([dec]) is received

**Explanation** The entry event is not an add, delete, or update event (the only supported types).

**Error Message** PM-4-BAD\_PORT\_COOKIE:an invalid port cookie was detected

**Explanation** The port manager detected an invalid request.

**Error Message** PM-4-BAD\_PORT\_NUMBER:an invalid port number [dec] was detected

**Explanation** The port manager detected an invalid request on interface number [dec].

**Recommended Action** Contact your technical support representative.

**Error Message** PM-4-BAD\_VLAN\_COOKIE:an invalid vlan cookie was detected

**Explanation** The port manager detected an invalid request.

**Error Message** PM-4-BAD\_VLAN\_ID:an invalid vlan id [dec] was detected

**Explanation** The port manager detected an invalid request.The invalid VLAN ID is *dec*.

**Error Message** PM-4-ERR\_DISABLE:[char] error detected on [char]

**Explanation** This is a defensive measure that will put the interface in the errdisable state when it detects a misconfiguration or misbehavior. After the configured retry time (5 minutes by default), the system will attempt to recover the interface.

**Error Message** PM-4-ERR\_RECOVER:Attempting to recover from [char] err-disable state on [char]

**Explanation** The system is attempting to bring the interface back from the errdisable state.

**Error Message** PM-4-EXT\_VLAN\_INUSE: VLAN [dec] currently in use by [char]

**Explanation** The Port Manager failed to allocate the VLAN for external use as the VLAN is currently occupied by another feature.

**Recommended Action** Reconfigure the feature to use another internal VLAN, or request another available VLAN.

**Error Message** PM-4-EXT\_VLAN\_NOTAVAIL: VLAN [dec] not available in Port Manager

**Explanation** The Port Manager failed to allocate the requested VLAN. The VLAN is mostly likely used as internal VLAN by other features.

**Recommended Action** Try a different VLAN on the device.

**Error Message** PM-4-INACTIVE: putting [char] in inactive state because [char]

**Explanation** The Port Manager has been blocked from creating a virtual port for the switch port and VLAN, causing the port to be inactive. The reason for this condition is specified in the error message.

**Error Message** PM-4-INT\_FAILUP: [char] failed to come up. No internal VLAN available

**Explanation** The Port Manager failed to allocate the internal VLAN and the interface cannot start.

**Recommended Action** Remove extended range VLANs to free up resources.

**Error Message** PM-4-INT\_VLAN\_NOTAVAIL: Failed to allocate internal VLAN in Port Manager

**Explanation** The Port Manager failed to find any available internal VLAN.

**Recommended Action** Delete some extended range VLANs created by users or remove some features that require internal VLAN allocation, such as a routed port.

**Error Message** PM-4-INVALID\_HOST\_ACCESS\_ENTRY: Invalid Host access entry type ([dec]) is received

**Explanation** The host access entry should be of either the configured or dynamic type.

**Recommended Action** Attempt to reconfigure using the correct type.

**Error Message** PM-4-LIMITS:Virtual port count for [char] exceeded the recommended limit of [dec]

**Explanation** There is a limit of 1200 virtual ports per module and 4500 per switch. This limit was exceeded.

**Error Message** PM-4-NO\_SUBBLOCK:No PM subblock found for [char]

**Explanation** A port manager (PM) subblock was not found for this interface.

**Error Message** PM-4-TOO\_MANY\_APP:application '[char]' exceeded registration limit

**Explanation** The port manager detected an invalid request. [char] is the application.

**Error Message** PM-4-UNKNOWN\_HOST\_ACCESS: Invalid Host access value ([dec]) is received

**Explanation** The host access table is being accessed with an invalid host access value.

**Error Message** PM-4-VMPS\_CFG: Dynamic access VLAN [dec] same as voice vlan on [char].

**Explanation** The access VLAN on the VMPS server is set to the same VLAN as the voice VLAN on the port.

**Recommended Action** Change the assignments so that the access VLAN assignment on VMPS server is different from the voice VLAN.

## PORT FAN OUT ASIC 4x1000 Manager Messages

This section contains the port fan-out ASIC 4x1000 manager (PORTFANOUTASIC4X1000MAN) messages. This ASIC takes a Gigabit port and fans it out to four 1000Mb ports.

**Error Message** C4K\_PORTFANOUTASIC4X1000MAN-4-DIAGSFAILED:[char] failed diagnostics

**Explanation** The module ASIC identified by [char] failed diagnostics. Contact your technical support representative.

**Error Message** C4K\_PORTFANOUTASIC4X1000MAN-4-FAILEDTOSENDLOOPBACKTRIES:[char] port [dec] failed to send packet in [dec] tries

**Explanation** For the *decth* time, the module ASIC *char* was unable to send a loopback packet on module ASIC port *dec*. This message indicates that the switch is out of memory. The switch will attempt to send a loopback packet only up to three times. Contact your technical support representative.

**Error Message** C4K\_PORTFANOUTASIC4X1000MAN-4-UNEXPECTEDLOOPBACK:  
[char] sent out a loopback packet on port [dec], but it came back on port [dec]

**Explanation** The module ASIC diagnostics for *char* sent a loopback packet out port *dec*, and it came back on another port *dec*. This situation is atypical because the loopback is internal to the hardware. Contact your technical support representative.

# PORT FAN OUT ASIC 8x100 Manager Messages

This section contains the port fan-out ASIC 8x100 manager (PORTFANOUTASIC8X100MAN) messages. This ASIC takes a Gigabit port and fans it out to eight 100Mb ports.

## PORTFANOUTASIC8X100MAN-4

**Error Message** C4K\_PORTFANOUTASIC8X100MAN-4-DIAGSFAILED:[char] failed diagnostics

**Explanation** The module ASIC identified by [char] failed diagnostics. Contact your technical support representative.

**Error Message** C4K\_PORTFANOUTASIC8X100MAN-4-FAILEDTOSENDLOOPBACKTRIES:[char] port [dec] failed to send packet in [dec] tries

**Explanation** For the *dect* time, the module ASIC *char* was unable to send a loopback packet on the module ASIC port *dec*. This messages indicates that the switch is out of memory; it will attempt to send a loopback packet up to 3 times. Contact your technical support representative.

**Error Message** C4K\_PORTFANOUTASIC8X100MAN-4-UNEXPECTEDLOOPBACK:[char] sent out a loopback packet on port [dec], but it came back on port [dec]

**Explanation** The module ASIC diagnostics for *char* sent the loopback packet out port *dec*, but it came back on another port *dec*. This situation is atypical because the loopback is internal to the hardware. Contact your technical support representative.

## PORTFANOUTASIC8X100MAN-7

**Error Message** C4K\_PORTFANOUTASIC8X100MAN-7-LOSTPACKET:[char] port [dec] lost a packet

**Explanation** A loopback packet was lost during online diagnostics of this port.

**Recommended Action** This is an informational message only. No action is required.

## PORT FAN OUT ASIC 8x1000 Hardware Message

This section contains the port fan-out ASIC 8x1000 hardware (PORTFANOUTASIC8X1000HW) message. This ASIC takes a Gigabit port and fans it out to eight 1000Mb ports.

**Error Message** C4K\_PORTFANOUTASIC8X1000HW-3-UNKNOWNDEVICEID:[char] - Linecard Management Protocol info register has unknown device id [hex]

**Explanation** Each module ASIC has an information register on it that contains the device ID field (DID) of the ASIC. When the module ASIC driver read this register, it discovered that the DID type was invalid. Contact your technical support representative.

The [char] field of the DID will probably contain <asic-code>(x) where x is the gigabit port of the switching engine that the module ASIC is attached to. The hex field of the DID contains the device ID. The expected value is 0x0450.

## PORT FAN OUT ASIC 8x1000 Manager Messages

This section contains the port fan-out ASIC 8x000 manager (PORTFANOUTASIC8X1000MAN) messages. This ASIC takes a Gigabit port and fans it out to eight 1000Mb ports.

### PORTFANOUTASIC8X1000MAN-4

**Error Message** C4K\_PORTFANOUTASIC8X1000MAN-4-DIAGSFAILED:[char] failed diagnostics

**Explanation** The module ASIC identified by [char] failed diagnostics. Contact your technical support representative.

**Error Message** C4K\_PORTFANOUTASIC8X1000MAN-4-FAILEDTOSENDLOOPBACKTRIES:[char] port [dec] failed to send packet in [dec] tries

**Explanation** After dec tries, the module ASIC char was unable to send a loopback packet on module ASIC port dec. This messages indicates that the switch is out of memory. It will attempt to send a loopback packet up to three times. Contact your technical support representative.

**Error Message** C4K\_PORTFANOUTASIC8X1000MAN-4-UNEXPECTEDLOOPBACK:[char] sent out a loopback packet on port [dec], but it came back on port [dec]

**Explanation** The module ASIC diagnostics for char sent a loopback packet out port dec and it came back on another port dec. This is atypical because the loopback is internal to the hardware. Contact your technical support representative.

## PORTFANOUTASIC8X1000MAN-7

**Error Message** C4K\_PORTFANOUTASIC8X1000MAN-7-LOSTPACKET:[char] port [dec] lost a packet

**Explanation** A loopback packet was lost during online diagnostics of module ASIC *char*.

**Recommended Action** This is an informational message only. No action is required.

## Power Shelf Messages

**Error Message** C4K\_POWERSHELF-3-INVALIDPACKETRECEIVED: We got an invalid packet

**Explanation** The GCP protocol stack received a packet of an unexpected type. This is a transient error condition; the protocol will most likely recover automatically on the next discovery cycle.

**Error Message** C4K\_POWERSHELF-3-MANYINVALIDGCPPACKETSRECEIVED:Many invalid GCP packets seen on power supply slot [dec] serial bus

**Explanation** The GCP packet driver reported processing many more invalid packets than valid ones. This might indicate a hardware problem with the power supply or with one of the rectifiers on the power shelf.

**Error Message** C4K\_POWERSHELF-3-NOROOMFORDEVICE: We dont have room to store more rectifiers for power supply slot [dec]

**Explanation** There are more rectifiers in the power shelf than the system can support. Check your documentation to see how many rectifiers are supported in one power shelf.

**Error Message** C4K\_POWERSHELF-6-MAXRECTIFIERSDISCOVERED: The maximum number of allowed rectifiers on slot [dec] discovered

**Explanation** Two power rectifiers per shelf are supported and possible. This message appears to let the user know that all expected rectifiers have been found by the software.

**Recommended Action** No action is required.

## Quality of Service Message

This section contains the quality of service (QoS) message.

**Error Message** C4K\_QOS-4-OUTOFPOLICERRESOURCES:Out of memory to allocate a policer

**Explanation** The software failed to allocate memory for a policer while processing the QoS configuration, possibly because the policer configuration exceeded its maximum supported limit.

**Recommended Action** Remove policers from other unwanted policies and retry the operation. Resend the command when other telnet sessions are not sending debugging commands.

## Redundancy Messages

This section contains the Supervisor Engine Redundancy messages.

**Error Message** C4K\_REDUNDANCY-2-POSTFAIL:POST failure on [char] supervisor detected

**Explanation** The active supervisor failed POST. The current standby supervisor will reset the current active supervisor to standby and attempt to become the active supervisor.

**Recommended Action** Please run offline diagnostics on the failed supervisor to isolate the problem. If necessary, return the failed supervisor to Cisco.

**Error Message** C4K\_REDUNDANCY-4-CONFIGSYNCFAIL:Persistent-config Sync to Standby supervisor failed.

**Explanation** The active supervisor failed to receive a confirmation message from the standby supervisor. There is a potential problem with the standby supervisor.

**Recommended Action** Call Cisco TAC.

**Error Message** C4K\_REDUNDANCY-5-CONFIGSYNC:The [char] has been successfully synchronized to the standby supervisor

**Explanation** The configuration has been successfully synchronized to the standby supervisor. *Char* can be either private configuration or startup configuration.

**Recommended Action** This is an informational message. No action is required.

**Error Message** C4K\_REDUNDANCY-5-CONFIGSYNC\_RATELIMIT:The [char] has been successfully synchronized to the standby supervisor

**Explanation** The configuration has been successfully synchronized to the standby supervisor. This is a rate limited message. These messages are logged at 1 minute intervals, rather than continuously as with many other messages.

**Recommended Action** This is an informational message. No action is required.

**Error Message** C4K\_REDUNDANCY-6-ACTIVESUPNOTFOUND:Active supervisor not found.

**Explanation** This message is displayed on the standby supervisor when it fails to communicate with the active supervisor.

**Recommended Action** This is an informational message. No action is required.

**Error Message** C4K\_REDUNDANCY-6-ATTEMPTINGTOBECOMEACTIVE:Attempting to become active supervisor.

**Explanation** This message is displayed on the standby supervisor when it fails to communicate with the active supervisor and attempts to takeover as active supervisor.

**Recommended Action** This is an informational message. No action is required.

**Error Message** C4K\_REDUNDANCY-6-INIT:Initializing as [char] supervisor

**Explanation** A supervisor that you are connected to is currently initializing as either the active or standby supervisor.

**Recommended Action** This is an informational message. No action is required.

**Error Message** C4K\_REDUNDANCY-6-MODE:[char] supervisor initializing for [char] mode

**Explanation** The supervisor that you are not directly connected to is currently initializing as either the active or standby supervisor, in RPR mode.

**Recommended Action** This is an informational message. No action is required.

**Error Message** C4K\_REDUNDANCY-6-SWITCHOVER:Switchover activity detected

**Explanation** The standby supervisor detected switchover activity.

**Recommended Action** This is an informational message. No action is required.

## Service Card Messages

**Error Message** C4K\_SERVICECARDMAN-6-EVENTTIMEOUT: Bringup Handshake timed out for module [dec]

**Explanation** The service card did not receive a response from the line card in the expected time when trying to establish a connection at boot up.

**Recommended Action** No action is required.

**Error Message** C4K\_SERVICECARDMAN-6-NEWCONFIGVBUF: New Vbuf message for module [dec]

**Explanation** Received new Buffer allocation message

**Recommended Action** No action is required.

**Error Message** C4K\_SERVICECARDMAN-6-RESETNOTIFY: Reset notification message received for module [dec]

**Explanation** Received reset notification for this line card.

**Recommended Action** No action is required.

**Error Message** C4K\_SERVICECARDMAN-6-RUNREADY: Run ready notification message received for module [dec]

**Explanation** Received run ready notification for this line card.

**Recommended Action** No action is required.

## Spanning Tree Protocol Messages

This section contains the Spanning Tree Protocol (SPANTREE) messages.

### SPANTREE-2

**Error Message** SPANTREE-2-BLOCK\_BPDU GUARD: Received BPDU on port [char] with BPDU Guard enabled. Disabling port.

**Explanation** A BPDU was received in the specified interface that has the spanning tree BPDU Guard feature enabled. As a result, the interface was administratively shut down.

**Recommended Action** Either remove the device sending BPDUs or disable the BPDU Guard feature. The BPDU Guard feature can be locally configured on the interface or globally configured on all ports that have portfast enabled. After the conflict has been resolved, reenable the interface by entering the **no shutdown** command in interface configuration mode.

**Error Message** SPANTREE-2-BLOCK\_PVID\_LOCAL: Blocking [char] on [char]. Inconsistent local vlan.

**Explanation** The spanning tree port associated with the listed spanning tree instance (*char*) and interface (*char*) will be held in spanning tree blocking state until the port VLAN ID (PVID) inconsistency is resolved. The listed spanning tree instance is that of the native VLAN ID of the listed interface.

**Recommended Action** Verify that the configuration of the native VLAN ID is consistent on the interfaces at each end of the 802.1Q trunk connection. When the configuration is consistent, spanning tree automatically unblocks the interfaces, as appropriate.

**Error Message** SPANTREE-2-BLOCK\_PVID\_PEER: Blocking [char] on [char]. Inconsistent peer vlan.

**Explanation** The spanning tree port (with spanning-tree port ID *char*) associated with the listed instance and interface will be held in blocking state until the port VLAN ID (PVID) inconsistency is resolved. The listed spanning tree instance is that of the native VLAN ID of the interface on the peer switch to which the listed interface is connected.

**Recommended Action** Verify that the configuration of the native VLAN ID is consistent on the interfaces on each end of the 802.1Q trunk connection. When corrected, spanning tree automatically unblocks the interfaces, as appropriate.

**Error Message** SPANTREE-2-CHNL\_MISCFG: Detected loop due to etherchannel misconfiguration of [chars] [chars]

**Explanation** A misconfigured channel group (with channel group ID *chars*) was detected. For example, ports of one side of the EtherChannel either are not configured to be in the channel or failed to bundle, while ports on the other side of the EtherChannel were successfully bundled.

**Recommended Action** Locate the misconfigured local ports by entering the **show interfaces status err-disabled** command. Check the EtherChannel configuration on the remote device by entering the **show etherchannel summary** command on the remote device. After the configuration is corrected, enter the **shutdown/no shutdown** command on the associated port-channel interface.

**Error Message** SPANTREE-2-LOOPGUARD\_BLOCK: Loop guard blocking port [char] on [char].

**Explanation** The spanning tree message age timer has expired because no BPDUs were received from the designated bridge. Because this condition could be caused by an unidirectional link failure, the interface is put into blocking state and marked as loop guard inconsistent in order to prevent possible loops from being created.

**Recommended Action** Use the **show spanning-tree inconsistentports** command to review the list of interfaces with loop guard inconsistencies. Determine why devices connected to the listed ports are not sending BPDUs. One reason could be that they do not run the spanning tree protocol; in this case you should disable loopguard in the inconsistent interfaces or start the spanning tree protocol on the other side of the links, depending on the context. Another reason could be a failure in the cable: if the link has a failure that makes it unidirectional (you can transmit but you can not receive) it should be replaced with a new cable.

**Error Message** SPANTREE-2-LOOPGUARD\_CONFIG\_CHANGE: Loop guard [char] on port [char].

**Explanation** The spanning tree loopguard configuration for the listed interface has been changed. If enabled, the interface will be put into blocking state and marked as loopguard inconsistent when the message age timer expires because no BPDU were received from the designated bridge. This feature is mainly used to detect unidirectional links

**Recommended Action** Verify that this is the desired configuration for the listed interface. Correct it if this is not the desired configuration otherwise no further action is required.

**Error Message** SPANTREE-2-LOOPGUARD\_UNBLOCK: Loop guard unblocking port [char] on [char].

**Explanation** The listed interface has received a BPDU and therefore if the inconsistency was due to an unidirectional link failure, now the problem is not there anymore. The loop guard inconsistency is cleared for the interface, which is taken out of the blocking state if appropriate.

**Recommended Action** No action is required.

**Error Message** SPANTREE-2-PVSTSIM\_FAIL: Superior PVST BPDU received on VLAN [dec] port [char]

**Explanation** When a PVST+ switch is connected to MST switch, IST root (MSTOO) becomes the root for all PVST+ spanning trees. Looping can occur if any of the PVST+ spanning trees have a root with a better preference than IST. To prevent looping, the port on the MST switch that receives the superior message from the PVST+ side is blocked by root guard.

**Recommended Action** When STP is converging after a new switch, or switch port, is added to the topology, this condition may happen transiently. The port unblocks automatically in such cases. If the port remains blocked identify the root bridge as reported in the message, and configure a worse priority for the VLAN spanning tree. There could be better PVST roots than the message indicates, and the port will not recover until all such roots are cleared. If you are unsure whether the roots are cleared, disable and enable the port again.

**Error Message** SPANTREE-2-RECV\_1Q\_NON\_1QTRUNK: Received 802.1Q BPDU on non 802.1Q trunk [char] [char].

**Explanation** A Shared Spanning Tree Protocol (SSTP) bridge protocol data unit (BPDU) was received on the listed interface. The interface was in trunk mode but was not using 802.1Q encapsulation. The interface ID is *char*.

**Recommended Action** Verify that the configuration and operational state of the listed interface and the interface to which it is connected are in the same mode (access or trunk). If the mode is trunk, verify that both interfaces have the same encapsulation (ISL or 802.1Q). Once these parameters are consistent, spanning tree automatically unblocks the interface as appropriate.

**Error Message** SPANTREE-2-RECV\_BAD\_TLV:Received SSTP BPDU with bad TLV on [char][char].

**Explanation** This message indicates that the listed interface received an SSTP BPDU that was missing the VLAN ID tag. The BPDU is discarded. *char* is the interface ID.

**Recommended Action** If the error message recurs, copy the message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and give the gathered information to the representative.

**Error Message** SPANTREE-2-RECV\_PVID\_ERR: Received BPDU with inconsistent peer vlan id [dec] on [char] [char]

**Explanation** This message indicates that the listed interface received an SSTP BPDU that is tagged with a VLAN ID that does not match the VLAN ID on which the BPDU was received. This error occurs when the native VLAN is not consistently configured on both ends of an 802.1Q trunk. *dec* is the VLAN ID. The interface ID is *char*.

**Recommended Action** Verify that the configuration of the native VLAN ID is consistent on the interfaces on each end of the 802.1Q trunk connection. Once the configuration is consistent, spanning tree automatically unblocks the interfaces as appropriate.

**Error Message** SPANTREE-2-ROOTGUARD\_BLOCK: Root guard blocking port [char] on [char].

**Explanation** A BPDU was received on the listed interface that advertised a spanning tree root bridge superior to the one already in use. The interface is put into a blocking state and marked as root guard inconsistent in order to prevent a suboptimal spanning tree topology from forming.

**Recommended Action** Issue the **show spanning-tree inconsistentports** command to review the list of interfaces with root guard inconsistencies. Determine why devices connected to the listed ports are sending BPDUs with a superior root bridge, then take action to prevent further occurrences. Once the invalid BPDUs have been stopped, the interfaces will automatically recover and resume normal operation. By looking at the configuration, ensure that it is appropriate to have root guard enabled on the interface.

**Error Message** SPANTREE-2-ROOTGUARD\_CONFIG\_CHANGE: Root guard [char] on port [char].

**Explanation** The spanning tree root guard configuration for the listed interface has been changed. If root guard is enabled, any BPDU received on the interface that advertises a superior spanning tree root bridge to that already in use will cause the interface to be put into blocking state and marked as root guard inconsistent.

**Recommended Action** Verify that this is the correct configuration for the listed interface. If this is not the correct configuration, change the configuration to one that is appropriate for the interface.

**Error Message** SPANTREE-2-ROOTGUARD\_UNBLOCK: Root guard unblocking port [char] on [char].

**Explanation** The listed interface is no longer receiving BPDUs advertising a superior root bridge. The root guard inconsistency is cleared for the interface and then it is taken out of the blocking state if appropriate.

**Recommended Action** This is an informational message. No action is required.

**Error Message** SPANTREE-2-UNBLOCK\_CONSIST\_PORT: Unblocking [char] on [char]. Port consistency restored.

**Explanation** The port VLAN ID and/or port type inconsistencies have been resolved. The Spanning Tree Protocol will unblock the listed interface of the spanning tree instance as appropriate. The interface ID is *char*.

**Recommended Action** This is an informational message. No action is required.

## SPANTREE-3

**Error Message** SPANTREE-3-BAD\_PORTNUM\_SIZE: Rejected an attempt to set the port number field size to [dec] bits (valid range is [dec] to [dec] bits).

**Explanation** The spanning tree port identifier is a 16-bit field that is, by default, divided evenly between port priority and port number. Each subfield is 8 bits wide, allowing the port number field to represent port numbers between 1 and 255. However, on systems with more than 255 ports, the STP subsystem must increase the size of the port number portion of the port ID to support the greater number of ports. This happens at system initialization time because the maximum number of ports on a particular platform will not change. This error occurs because of an error in the platform-specific code that caused it to request more (or fewer) bits than were possible.

**Error Message** SPANTREE-3-PORT\_SELF\_LOOPED: [char] disabled.- received BPDU src mac ([mac-addr]) same as that of interface

**Explanation** A BPDU with a source MAC address that matches the address assigned to the listed interface was received. As a result, a port looped back on itself, possibly due to a diagnostic cable that was plugged into the interface. The interface will be administratively shut down. *chars* is the interface ID.

**Recommended Action** Check the interface configuration and any cable plugged into the interface. Once the problem is resolved, reenables the interface by entering the **no shutdown** command on the interface.

## SPANTREE-5

**Error Message** SPANTREE-5-EXTENDED\_SYSID: Extended SysId [char] for type [char]

**Explanation** The extended system ID feature has been either enabled or disabled for the given type of spanning tree. If the feature was enabled, the spanning tree instance identifier is stored in the lower portion of the bridge ID priority field; this will cause the allowed values for the bridge priority to be limited to the range of 0 to 61,440, in increments of 4096. If the feature was disabled, the bridge ID priority field consists entirely of the configured priority, but some spanning tree features might not be available on a given platform (i.e., 4096 VLAN support). On some platforms, this feature might be mandatory.

**Recommended Action** This is an informational message. No action is required.

## SPANTREE-7

**Error Message** SPANTREE-7-BLOCK\_PORT\_TYPE: Blocking [char] on [char]. Inconsistent port type.

**Explanation** The listed interface is being held in spanning-tree blocking state until the port type inconsistency is resolved. The port ID is *chars*.

**Recommended Action** Verify that the configuration and operational state of the listed interface and that of the interface to which it is connected are in the same mode (access or trunk). If the mode is trunk, verify that both interfaces have the same encapsulation type (ISL or 802.1Q). When these parameters are consistent, spanning tree automatically unblocks the interface as appropriate.

**Error Message** SPANTREE-7-RECV\_1Q\_NON\_TRUNK: Received 802.1Q BPDU on non trunk [char] [char].

**Explanation** An SSTP BPDU was received on the listed interface, which is not an operational trunking interface. The interface ID is *chars*.

**Recommended Action** Verify that the configuration and operational state of the listed interface and that of the interface to which it is connected are in the same mode (access or trunk). If the mode is trunk, verify that both interfaces have the same encapsulation type (none, ISL, or 802.1Q). Once these parameters are consistent, spanning tree automatically unblocks the interface as appropriate.

**Error Message** SPANTREE\_FAST-7-PORT\_FWD\_UPLINK: [char] [char] moved to Forwarding (UplinkFast).

**Explanation** The listed interface has been selected as the new root port for the listed spanning tree instance.

## SPANTREE-VLAN Switch Message

This section contains the spanning tree fast convergence (SPANTREE\_VLAN\_SW) message.

**Error Message** SPANTREE\_VLAN\_SW-2-MAX\_INSTANCE: Platform limit of [dec] STP instances exceeded. No instance created for [char] (port [char]).

**Explanation** The number of currently active VLAN spanning tree instances has reached a platform specific limit. No additional VLAN instances will be created until the number of instances drops below that limit.

**Recommended Action** Reduce the number of currently active spanning tree instances by either disabling some of the instances or deleting the VLANs associated with them. Be aware that you will need to manually enable those spanning trees that could not be created due to limited instances.

# Storage Messages

This section contains the storage (STORE) messages.

**Error Message** C4K\_STORE-2-OUTOFCHUNKS:Out of chunks of memory

**Explanation** The system has run out of memory.

**Recommended Action** Reset the switch.

If this message occurs regularly, add additional memory.

# Supervisor Messages

This section contains the supervisor (SUPERVISOR) messages.

## SUPERVISOR-2

**Error Message** C4K\_SUPERVISOR-2-ALLCHASSISSEEPROMSINVALID: Contents of all chassis's serial eeproms are invalid

**Explanation** The contents of all of the serial EEPROMs in the chassis are invalid; they might have a bad checksum. In non-redundant chassis, the single serial eeprom is bad. If this is a redundant chassis, both serial EEPROMs are bad.

**Recommended Action** Try power cycling the switch. If the serial eeprom is still invalid, this chassis should be returned. Alternatively, it is possible to try programming the serial eeprom from the ROM monitor, but we do not recommend this.

**Error Message** C4K\_SUPERVISOR-2-MUXBUFFERNOTPRESENT:Mux buffer (WS-X4K-MUX) [dec] is not present

**Explanation** The WS-X4K-MUX line card is either not connected to the backplane properly or is not present. If the line card present in this slot cannot be identified, its SEEPROM cannot be read and it will be unusable.

**Recommended Action** Return the backplane to Cisco for repair.

**Error Message** C4K\_SUPERVISOR-2-SUPERVISORSEEPROMINVALID:Contents of supervisor's serial eeprom are invalid

**Explanation** The contents of the supervisor's serial EEPROM are invalid (bad checksum, for example). This could happen because the supervisor is seated incorrectly, causing the read to fail.

**Recommended Action** Try removing and reinserting the supervisor. If that doesn't work, try power cycling the switch. If the switch still fails to come online, this supervisor should be returned. Alternatively, it is possible to try programming the serial EEPROM from the ROM monitor, but we do not recommend this.

## SUPERVISOR-3

**Error Message** C4K\_SUPERVISOR-3-BACKPLANESEEPROMREADFAILED:Failed to read backplane's serial eeprom, read [dec], expected size [dec]

**Explanation** A failure occurred when reading the backplane serial EEPROM.

**Recommended Action** Power cycle the switch. If that doesn't resolve the problem, return the switch to your technical support representative.

**Error Message** C4K\_SUPERVISOR-3-CHASSISTYPEMISMATCHINSPROM:Chassis type in supervisor's FPGA register and chassis' serial eeprom don't match

**Explanation** The chassis type in the field programmable gate array (FPGA) register on the supervisor engine doesn't match the type listed in the serial eeprom on the chassis. Check the chassis serial eeprom information. This should never happen in a production chassis. If it does, the chassis needs to be returned.

**Error Message** C4K\_SUPERVISOR-3-CLOCKMODULESEEPROMINVALID:Invalid Clock Module seeprom data

**Explanation** The Clock Module serial eeprom could not be read or has not been programmed.

**Error Message** C4K\_SUPERVISOR-3-CLOCKMODULESEEPROMREADFAILED: Failed to read clock module's seeprom

**Explanation** A failure occurred while reading the clock module serial EEPROM.

**Error Message** C4K\_SUPERVISOR-3-FANTRAYSEEPROMREADFAILED: Failed to read fan tray's seeprom

**Explanation** A failure occurred while reading the system fan tray serial EEPROM.

**Error Message** C4K\_SUPERVISOR-3-FANTRAYSEEPROMINVALID:Invalid fan tray seeprom data

**Explanation** The Fan Tray serial eeprom could not be read or has not been programmed.

**Error Message** C4K\_SUPERVISOR-3-FIRSTCHASSISSEEPROMINVALID: Contents of chassis's first serial eeprom are invalid

**Explanation** The contents of the first serial EEPROM are invalid, for example, a bad checksum. This message only appears on a 4507R using the redundancy feature, which means there is a second serial EEPROM.

**Recommended Action** Try power cycling the switch. If the serial EEPROM is still invalid, this chassis should be returned. It is possible to try programming the serial eeprom from the ROM monitor, but we do not recommend this.

**Error Message** C4K\_SUPERVISOR-3-INVALIDMGMTETHERNETADDR:Chassis SPROM not set or invalid MAC address range

**Explanation** The out of band management port uses a MAC address from the system MAC address range. The contents of the serial programmable read-only memory (SPROM) are bad, so the management port does not have a MAC address.

**Error Message** C4K\_SUPERVISOR-3-MUXBUFFERSEEPROMINVALID:Invalid data in mux buffer [dec]'s serial eeprom

**Explanation** The mux buffer serial eeprom could not be read or has not been programmed.

**Error Message** C4K\_SUPERVISOR-3-OLDWSX4124:WS-X4124-FX-MT revision [dec].[dec], which is < 1.6, is not supported

**Explanation** WS-X4124-FX-MT modules with hardware revisions 1.6 or earlier are not supported.

**Recommended Action** Replace this module with a WS-X4124-FX-MT module revision 1.7 or later.

**Error Message** C4K\_SUPERVISOR-3-POWERSUPPLYSEEPROMINVALID:Invalid data in power supply [dec]'s serial eeprom

**Explanation** The power supply serial eeprom could not be read or has not been programmed.

**Recommended Action** Try re-inserting the power supply. If that doesn't work, replace it with a new power supply.

**Error Message** C4K\_SUPERVISOR-3-RETIMERDISABLEFAILED:Failed to disable the retimer of the active supervisor's uplink.

**Explanation** The retimer on the active supervisor could not be initialized. In a redundant system, you might see packets transmitted out the active supervisor's non-active uplink. To prevent this, disconnect the second uplink on the active supervisor.

**Error Message** C4K\_SUPERVISOR-3-RETIMERINITFAILED:Failed to initialize the retimer of the active supervisor's uplink.

**Explanation** The retimer on the active supervisor could not be initialized. In a redundant system, you might see packets transmitted out the active supervisor's non-active uplink. To prevent this, disconnect the second uplink on the active supervisor.

**Error Message** C4K\_SUPERVISOR-3-SEEPROMREADFAILED:Failed to read supervisor's serial eeprom, try reinserting supervisor

**Explanation** A reading of the supervisor module's serial EEPROM failed. Sometimes the read fails because the module isn't seated correctly in the slot.

**Recommended Action** Remove and reinsert the module. If that doesn't work, try power cycling the switch. If the read still fails, return the switch to your technical support representative.

**Error Message** C4K\_SUPERVISOR-3-MUXBUFFERSEEPROMREADFAILED: Failed to read mux buffer [dec]'s serial eeprom

**Explanation** A failure occurred while reading the mux buffer serial EEPROM.

**Error Message** C4K\_SUPERVISOR-3-POWERSUPPLYSEEPROMREADFAILED: Failed to read power supply [dec]'s serial eeprom

**Explanation** A failure occurred while reading the power supply serial EEPROM.

**Recommended Action** Try re-inserting it. If that doesn't work, replace it with a new power supply.

**Error Message** C4K\_SUPERVISOR-3-NETFLOWCARDSEEPROMINVALID: Invalid Netflow Services Card seeprom data

**Explanation** The serial eeprom on the NetFlow Services Card could not be read or has not been programmed. For more information, type **sprom read nffc** at the rommon prompt.

**Error Message** C4K\_SUPERVISOR-3-NETFLOWCARDSEEPROMREADFAILED: Netflow Services Card seeprom read failed

**Explanation** Reading the serial eeprom on the NetFlow Services Card failed.

**Error Message** C4K\_SUPERVISOR-3-NETFLOWCARDSEEPROMUNKNOWNNTYPE: Unknown Netflow Services Card revision: Read fru major/minor ([hex],[hex]) but expected ([hex],[hex]).

**Explanation** The serial eeprom on the NetFlow Services Card indicates a revision that is not compatible with this release of software. The card will be ignored in production. It is possible to try programming the serial eeprom from the ROM monitor, but it is not recommended.

## SUPERVISOR-4

**Error Message** C4K\_SUPERVISOR-4-SUPMGMTMACFATALRXERR:Supervisor MAC device type [hex] reset due to a fatal Rx error

**Explanation** An error occurred with the out-of-band management port on the supervisor.

**Error Message** C4K\_SUPERVISOR-4-OTHERSUPERVISORACTIVEDEBOUNCE:Other supervisor is still holding hardware lock

**Explanation** This condition is detected when the redundancy register incorrectly indicates that the other supervisor is holding a lock, and is probably caused by hardware signal latency. Unless there is a real hardware failure, the switch will automatically recover from this state. If there is a persistent hardware failure this message will appear four times.

## SUPERVISOR-7

**Error Message** C4K\_SUPERVISOR-7-BACKPLANESEEPROMWRITEFAILED:Failed to write backplane's serial eeprom

**Explanation** The writing of the backplane serial EEPROM failed.

**Recommended Action** Power cycle the switch.

**Error Message** C4K\_SUPERVISOR-7-POWERSUPPLYTYPE: Setting GalPowerSupplyType=( [dec] ) from Perl interface for testing\

**Explanation** This is a debug message only.

**Recommended Action** No action is required.

**Error Message** C4K\_SUPERVISOR-7-SEEPROMWRITEFAILED:Failed to write supervisor's serial eeprom

**Explanation** The writing of the supervisor module serial EEPROM failed.

**Recommended Action** Remove and reinsert the module. If this message reappears, reset the switch. If the switch is still unable to write to the EEPROM, contact your technical support representative.

## SW-VLAN Messages

This section contains the switch VLAN manager (SW-VLAN) messages.

### SW-VLAN-4

**Error Message** SW-VLAN-4-VTP-INTERNAL-ERROR:VLAN manager received an internal error [dec] from vtp function [chars]: [chars]

**Explanation** This message indicates that an unexpected error code was received by the VLAN manager from the VLAN Trunking Protocol (VTP) configuration software. The error code is *dec*, the first *chars* is the VTP function, and the second *chars* is an error code description.

## VLAN Manager

**Error Message** SW\_VLAN-3-VLAN\_PM\_NOTIFICATION\_FAILURE: VLAN Manager synchronization failure with Port Manager over [char]

**Explanation** Due to lack of ready pool space, the VLAN manager dropped a notification from the Port Manager, as indicated by the message.

**Error Message** SW\_VLAN-3-VTP\_PROTOCOL\_ERROR: VTP protocol code internal error: [char]

**Explanation** VTP protocol code encountered an unexpected error while processing configuration request, packet, or timer expiration.

**Error Message** SW\_VLAN-4-BAD\_PM\_VLAN\_COOKIE\_RETURNED: VLAN manager unexpectedly received a bad PM VLAN cookie from the Port Manager

**Explanation** The VLAN manager received an upcall from the Port Manager containing a VLAN cookie that translated to a bad VLAN number.

**Error Message** SW\_VLAN-4-BAD\_STARTUP\_VLAN\_CONFIG\_FILE: Failed to configure VLAN from startup-config. Fallback to use VLAN configuration file from non-volatile memory

**Explanation** VLAN software failed to use VLAN configuration from startup-config file. It will fallback to use the binary VLAN configuration file in non-volatile memory.

**Recommended Action** No action is required.

**Error Message** SW\_VLAN-4-BAD\_VLAN\_CONFIGURATION\_FILE: VLAN configuration file contained incorrect verification word: [hex]

**Explanation** The VLAN configuration file read by the VLAN manager begins with an unrecognized value and it might not be a valid VLAN configuration file. Thus, it has been rejected.

**Error Message** SW\_VLAN-4-BAD\_VLAN\_CONFIGURATION\_FILE\_VERSION: VLAN configuration file contained unknown file version: [dec]

**Explanation** The VLAN configuration file read by the VLAN manager contained an unrecognized file version number. (This could indicate an attempt to regress to an older version of the VLAN manager software.)

**Error Message** SW\_VLAN-4-BAD\_VLAN\_TIMER\_ACTIVE\_VALUE: Encountered incorrect VLAN timer active value: [char]

**Explanation** Due to a software error, a VLAN timer was detected as being active when it should have been inactive or inactive when it should have been detected as being active.

**Error Message** SW\_VLAN-4-EXT\_VLAN\_CREATE\_FAIL: Failed to create VLANs [char]: [char]

**Explanation** Failed to create VLAN(s).

**Error Message** SW\_VLAN-4-EXT\_VLAN\_INTERNAL\_ERROR: Extended VLAN manager received an internal error [dec] from [char]: [char]

**Explanation** An unexpected error code was received by the VLAN Manager from the extended VLAN configuration software.

**Error Message** SW\_VLAN-4-EXT\_VLAN\_INVALID\_DATABASE\_DATA: Extended VLAN manager received bad data of type [char]: value [dec] from function [char]

**Explanation** Invalid data was received by the extended VLAN Manager from an extended VLAN configuration database routine.

**Error Message** SW\_VLAN-4-IFS\_FAILURE: VLAN manager encountered file operation error: call = [char] / file = [char] / code = [dec] ([char]) / bytes transferred = [dec]

**Explanation** The VLAN manager received an unexpected error return from an IOS file system call.

**Error Message** SW\_VLAN-4-NO\_PM\_COOKIE\_RETURNED: VLAN manager unexpectedly received a null [char] type cookie from the Port Manager

**Explanation** The VLAN manager queried the Port Manager for a reference cookie but received a NULL pointer instead.

**Error Message** SW\_VLAN-4-STARTUP\_EXT\_VLAN\_CONFIG\_FILE\_FAILED: Failed to configure extended range VLAN from startup-config. Error [char]

**Explanation** VLAN software failed to use extended VLAN configuration in the startup-config file. Configuration information for all extended range VLANs will be lost when the system boots.

**Recommended Action** No action is required.

**Error Message** SW\_VLAN-4-VTP\_INTERNAL\_ERROR: VLAN manager received an internal error [dec] from vtp function [char]: [char]

**Explanation** An unexpected error code was received by the VLAN Manager from the VTP configuration software.

**Error Message** SW\_VLAN-4-VTP\_INVALID\_DATABASE\_DATA: VLAN manager received bad data of type [char]: value [dec] from vtp database function [char]

**Explanation** Invalid data was received by the VLAN Manager from a VTP configuration database routine.

**Error Message** SW\_VLAN-4-VTP\_INVALID\_EVENT\_DATA: VLAN manager received bad data of type [char]: value [dec] while being called to handle a [char] event

**Explanation** Invalid data was received by the VLAN Manager from the VTP configuration software.

**Error Message** SW\_VLAN-6-OLD\_CONFIG\_FILE\_READ: Old version [dec] VLAN configuration file detected and read OK. Version [dec] files will be written in the future.

**Explanation** VLAN software detected an old version of the VLAN configuration file format. It was able to interpret the file with no problems but will create files using the new format in the future.

**Recommended Action** No action is required.

**Error Message** SW\_VLAN-6-VTP\_MODE\_CHANGE: VLAN manager changing device mode from [char] to [char].

**Explanation** Some switch devices must automatically change VTP device modes upon receipt of a VLAN configuration database containing more than a set number of VLANs, depending on the device. This message indicates that such a spontaneous conversion has occurred, what the previous mode was, and what the current mode is.

**Recommended Action** No action is required.

## Switching Engine Management Messages

This section contains the switching engine management (SWITCHINGENGINEMAN) messages.

### SWITCHINGENGINEMAN-3

**Error Message** C4K\_SWITCHINGENGINEMAN-3-BADDELIMITER:Received CPU packet with bad delimiter

**Explanation** The software expected a delimiter pattern of successive packets but received some other pattern. This is most likely due to a loss of synchronization between hardware and software.

**Error Message** C4K\_SWITCHINGENGINEMAN-3-BADLENGTH:Received CPU packet with bad length

**Explanation** The switch received a CPU packet that was either too long or too short.

**Error Message** C4K\_SWITCHINGENGINEMAN-3-CIMPKTBUFPARITYERROR: Parity error in Cim Packet Buffer at offset [dec]

**Explanation** There is a parity error in queue memory. This could indicate a transient hardware problem, or a more permanent problem. If you see this message often, reboot the switch. After 128 packet memory and queue memory errors, the switch will reload.

**Error Message** C4K\_SWITCHINGENGINEMAN-3-ERRORINTERRUPT: Error condition detected by hardware. Interrupt Status [hex]

**Explanation** Hardware detected an error condition and has raised an interrupt to the software. The interrupt status value indicates the type of error.

**Error Message** C4K\_SWITCHINGENGINEMAN-3-JUMBOPACKET: Recieved a Jumbo CPU packet

**Explanation** The switch has received a packet that is larger than 2032 bytes, called a jumbo packet.

**Recommended Action** This is an informational message only.

**Error Message** C4K\_SWITCHINGENGINEMAN-3-NOMEMORYFORRXRING: Not enough memory to initialize CPU packets

**Explanation** While trying to initialize the CPU packet driver, the system ran out of memory.

**Error Message** C4K\_SWITCHINGENGINEMAN-3-PACKETENGINEERESTARTED: An error happened in the Packet Engine logic

**Explanation** For unknown reasons, the packet engine logic became unstable.

**Recommended Action** Restart the switch.

**Error Message** C4K\_SWITCHINGENGINEMAN-3-PACKETMEMORYPARITYERROR: Parity error in Packet Memory at address [dec]

**Explanation** There is a parity error in packet memory. This could indicate a transient hardware problem, or a more permanent problem. If you see this message often, reboot the switch. After 128 packet memory and queue memory errors, the switch will reload.

**Error Message** C4K\_SWITCHINGENGINEMAN-3-QUEUEMEMORYPARITYERROR: Parity error in Queue Memory at address [dec]

**Explanation** There is a parity error in queue memory. This could indicate a transient hardware problem, or a more permanent problem. If you see this message often, then please reboot the switch. After 128 packet memory and queue memory errors, the switch will reload.

**Error Message** C4K\_SWITCHINGENGINEMAN-3-RXDELIMITERERROR: Invalid packet delimiter received. Expected [hex] Received [hex]

**Explanation** Successive packets sent by the hardware to the CPU have a specific delimiter pattern. This error indicates that the software expected a delimiter pattern, but received some other pattern. The most likely cause is loss of synchronization between hardware and software.

**Recommended Action** Restart the switch.

# Switch Management Messages

This section contains the switching manager (SWITCHMANAGER) messages.

## SWITCHMANAGER-3

**Error Message** C4K\_SWITCHMANAGER-3-DUPLICATESWPHYPORT: Internal Event: Tried to create new sw PimPhyport [char], but it already exists

**Explanation** This is a debug message used by developers only, and should not occur during operation.

**Error Message** C4K\_SWITCHMANAGER-3-DUPLICATESWPORT: Internal Event: Tried to create new sw PimPort [char], but it already exists

**Explanation** This is a debug message used by developers only, and should not occur during operation.

## SWITCHMANAGER-4

**Error Message** C4K\_SWITCHMANAGER-4-CANTPOWEROFF:Internal Error: PimEthAutoNegotiator - Can't power off port [char]

**Explanation** This is an internal software error in an inline-power state machine.

**Error Message** C4K\_SWITCHMANAGER-4-CANTPOWERON:Internal Error: PimEthAutoNegotiator - Can't power on port [char]

**Explanation** This is an internal software error in an inline-power state machine.

**Error Message** C4K\_SWITCHMANAGER-4-HARDWAREERROR:Power management hardware for port [char] bad.

**Explanation** The switch cannot change the inline-power state for this port.

**Error Message** C4K\_SWITCHMANAGER-4-S2WERROR:Power control to port [char] bad. Possibly power is turned on.

**Explanation** This is a communication error in an inline-power management.

**Error Message** C4K\_SWITCHMANAGER-4-S2WERRORREPORT: PimEthAutoNeg: S2w Read/Write Error for port [char].

**Explanation** A read/write error occurred on the specified port.

## SWITCHMANAGER-5

**Error Message** C4K\_SWITCHMANAGER-5-FLAPSHUTDOWN:Temporarily disabling port [char] due to flap

**Explanation** The specified port is going up and down (link up/down) in rapid succession. This is usually caused by a bad connection or problems with the link-level hardware. The switch has temporarily shut down the problem port. Every five seconds, the switch re-enables the port to see if the problem has gone away. If not, the port will remain shut down indefinitely.

**Recommended Action** This is an informational message only. No action is required.

## System Management Messages

This section contains the system manager (SYSMAN) messages.

### SYSMAN-2

**Error Message** C4K\_SYSMAN-2-POWERONSELFTESTFAIL:Supervisor module failed Power-On-Self-Test(POST). Line cards are **\*\*NOT\*\*** initialized. Please use 'show diagnostics power-on' command for details.

**Explanation** This message is displayed when a power-on self test (POST) failure is detected on the supervisor module. When this happens, modules are not initialized. Use the **show diagnostics power-on** command to isolate the problem.

### SYSMAN-3

**Error Message** C4K\_SYSMAN-3-LINECARDIAGSFAILED:Module in slot [dec] failed online diagnostics. Please use 'show diagnostics online module [dec]' command for details.

**Explanation** A module has failed online diagnostics. When this happens, all the module's ports are flagged as faulty and cannot be used until the problem is resolved.

**Recommended Action** Remove and reinsert the module. If the problem persists, contact your technical support representative.

**Error Message** C4K\_SYSMAN-3-LINECARDIAGSPARTIALFAILURE:Partial failure on module [dec]. Please use 'show diagnostics online module [dec]' command for details.

**Explanation** Some of the module's ports failed online diagnostics.

**Recommended Action** Remove and reinsert the switch. If the problem persists, contact your technical support representative.

## SYSMAN-4

**Error Message** C4KSYSMAN-4-MORETHANONEDEBUGCOMMANDEXECUTING:Cannot execute '[char]' right now, please try again later

**Explanation** More than one telnet session has issued a debugging command at the same time. This is not supported; all telnet sessions except the one that issued the command first will get this message. Try the command later, when other telnet sessions are not issuing debugging commands.

## UplinkFast Messages

This section contains the UplinkFast (UFAST) messages.

### UFAST-3

**Error Message** UFAST\_MCAST\_SW-3-PROC\_START\_ERROR:UplinkFast packets will not be transmitted as the process could not be created.

**Explanation** UplinkFast packets will not be transmitted as the process could not be created.

**Recommended Action** Reload UplinkFast. If this problem persists even after the reload, contact your technical support representative with the configuration and technical support information.

### UFAST-4

**Error Message** UFAST\_MCAST\_SW-4-MEM\_NOT\_AVAILABLE:No memory is available for transmitting UplinkFast packets on Vlan [dec].

**Explanation** UplinkFast packets will not be transmitted on VLAN *dec* due to a lack of memory.

**Recommended Action** Reduce other system activity to ease memory demands.

Contact your technical support representative to determine whether you need to upgrade to a larger memory configuration.

# VQPCIENT Messages

This section contains VLAN Query Protocol (VQP) Client messages.

## VQPCIENT-2

**Error Message** VQPCIENT-2-CHUNKFAIL: Could not allocate memory for VQP

**Explanation** This message indicates that an error has occurred when the system tried to allocate memory for the VQP client.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, and provide your technical support representative with this information.

**Error Message** VQPCIENT-2-DENY: Host [enet] denied on interface [chars]

**Explanation** This message indicates that the VLAN Membership Policy Server (VMPS) has denied access for the given host MAC address to an interface. [enet] is the host MAC address, and [chars] is the interface name.

**Recommended Action** No action is normally required. If you think that the host should have been allowed access, verify the configuration on the VMPS.

**Error Message** VQPCIENT-2-INITFAIL: Platform-specific VQP initialization failed.  
Quitting

**Explanation** This message indicates that an error has occurred during initialization of the VQP client platform-specific code.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, and provide your technical support representative with this information.

**Error Message** VQPCIENT-2-IPSOCK: Could not obtain IP socket

**Explanation** This message indicates that an error has occurred when the system attempted to open an IP socket to the VMPS.

**Recommended Action** If the error message recurs, copy the message exactly as it appears on the console or in the system log, and provide your technical support representative with this information.

**Error Message** VQPCIENT-2-PROCFAIL: Could not create process for VQP. Quitting

**Explanation** This message indicates that an error has occurred while creating a process for the VQP client.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log, and provide your technical support representative with this information.

**Error Message** VQPCIENT-2-SHUTDOWN: Interface [chars] shutdown by VMPS

**Explanation** This message indicates that the VMPS has directed that an interface be shut down. [chars] is the interface name.

**Recommended Action** No action is normally required. If you think that the port should not have been shut down, then verify the configuration on the VMPS.

**Error Message** VQPCIENT-2-TOOMANY: Interface [chars] shutdown by active host limit

**Explanation** This message indicates that the system has shut down an interface because too many hosts have requested access to that port. [chars] is the interface name.

**Recommended Action** To reactivate the port, remove the excess hosts, and enter the **no shutdown** interface configuration command on the interface.

## VQPCIENT-3

**Error Message** VQPCIENT-3-IFNAME: Invalid interface ([char]) in response

**Explanation** This message indicates that the VMPS has sent an unsolicited response with an unknown interface name. [chars] is the name of the unknown interface.

**Recommended Action** Verify the VMPS configuration.

**Error Message** VQPCIENT-3-THROTTLE: Throttling VLAN change on [chars]

**Explanation** This message indicates that an attempt was made to change the VLAN assignment for an interface more often than once every 10 seconds. The VLAN change is denied. [chars] is the name of the interface.

**Recommended Action** No action is normally required. If the message reoccurs, verify the VMPS configuration. Verify that unexpected hosts are not connected to the port.

**Error Message** VQPCIENT-3-VLANNAME: Invalid VLAN ([chars]) in response

**Explanation** This message indicates that the VMPS has specified a VLAN name that is unknown to the switch. [chars] is the invalid VLAN name.

**Recommended Action** Make sure that the VLAN exists on the switch. Verify the VMPS configuration.

## VQPCLIENT-4

**Error Message** VQPCLIENT-4-IPADDR: Main IP address (on [char]) was deleted

**Explanation** This message indicates that the primary IP address on the interface [char] was deleted.

**Recommended Action** Reenter the IP address.

## VQPCLIENT-7

**Error Message** VQPCLIENT-7-DELETING: Freeing deleted saved responses

**Explanation** This message indicates that the VQP client has reclaimed memory from deleted responses.

**Recommended Action** This is a debug message only. No action is required.

**Error Message** VQPCLIENT-7-NEXTSERV: Trying next VMPS

**Explanation** This message indicates that the system has lost connectivity with the current VMPS and is changing to the next server in its list.

**Recommended Action** This is a debug message only. No action is required.

**Error Message** VQPCLIENT-7-PROBE: Probing primary server [IP\_address]

**Explanation** This message indicates that the system is trying to reestablish connectivity with the primary VMPS at the given IP address.

**Recommended Action** This is a debug message only. No action is required.

**Error Message** VQPCLIENT-7-RECONF: Reconfirming VMPS responses

**Explanation** This message indicates that the switch is reconfirming all responses with the VMPS.

**Recommended Action** This is a debug message only. No action is required.

**Error Message** VQPCLIENT-7-STARTUP: Starting VQP client

**Explanation** This message indicates that the VQP client has started.

**Recommended Action** This is an informational message only. No action is required.

**Error Message** VQPCLIENT-7-STOPPING: Stopping VQP client

**Explanation** This message indicates that the VQP client has stopped.

**Recommended Action** This is an informational message only. No action is required.

## Watchdog Message

This section contains the watchdog (WATCHDOG) message.

**Error Message** C4K\_WATCHDOG-3-CHILDFailure: Watchdog failure ([char]) - system may reset

**Explanation** The job *char* was not scheduled and not started soon enough to start its watchdog timer. Determine what other activity is consuming the supervisor processor.





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## A

### abbreviations

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