



Catalyst 4500 Series Switch Cisco IOS System Message Guide

Cisco IOS Release 12.2(40)SG

Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Text Part Number: OL-14966-01

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

The following information is for FCC compliance of Class B devices: The equipment described in this manual generates and may radiate radio-frequency energy. If it is not installed in accordance with Cisco's installation instructions, it may cause interference with radio and television reception. This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in part 15 of the FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

Modifying the equipment without Cisco's written authorization may result in the equipment no longer complying with FCC requirements for Class A or Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

You can determine whether your equipment is causing interference by turning it off. If the interference stops, it was probably caused by the Cisco equipment or one of its peripheral devices. If the equipment causes interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the equipment to one side or the other of the television or radio.
- Move the equipment farther away from the television or radio.
- Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radio are on circuits controlled by different circuit breakers or fuses.)

Modifications to this product not authorized by Cisco Systems, Inc. could void the FCC approval and negate your authority to operate the product.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

CCVP, the Cisco logo, and Welcome to the Human Network are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networkers, Networking Academy, Network Registrar, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0710R)

Catalyst 4500 Series Switch Cisco IOS System Message Guide
Copyright © 1997-2007 Cisco Systems, Inc. All rights reserved.



CONTENTS

Preface	ix
Audience	ix
Organization	ix
Related Documentation	ix
Software Documentation	x
Conventions	x
Obtaining Documentation, Obtaining Support, and Security Guidelines	xi

CHAPTER 1

System Message Format	1-1
Message Structure	1-1
Facility Code	1-1
SEVERITY Level	1-3
MNEMONIC Code	1-4
Message Text	1-4
Sample System Error Messages	1-4
Error Message Traceback Reports	1-5

CHAPTER 2

Messages and Recovery Procedures	2-1
ACL Messages	2-2
ACL Snooping Messages	2-2
ARP Snooping Messages	2-2
Bad ID Messages	2-3
BUFFERMANAGER Messages	2-3
CHASSIS Messages	2-4
CHASSIS-2	2-4
CHASSIS-3	2-6
CHASSIS-4	2-13
CHASSIS-5	2-15
COMMONHWACLMAN Messages	2-16
COMMONHWACLMAN-4	2-16
COMMONSTUBMAN Messages	2-17
C4K_COMMONSTUBMAN-4	2-17

C4K_COMMONSTUBMAN-7	2-18
DHCP SNOOPING Messages	2-18
DHCP_SNOOPING-3	2-18
DHCP_SNOOPING-4	2-18
DHCP_SNOOPING-5	2-22
DHCP_SNOOPING-6	2-23
DOT1X (802.1X) Messages	2-24
DOT1X-4	2-24
DOT1X-5	2-25
DTP Messages	2-26
DTP-4	2-26
DTP-5	2-26
EBM Messages	2-27
EBM-3	2-27
EBM-4	2-29
EC Messages	2-30
EC-4	2-30
EC-5	2-30
FLASH Messages	2-34
GLM Messages	2-34
HW Messages	2-36
HWACLMAN Messages	2-37
HWL2MAN Messages	2-40
HWNETFLOWMAN Messages	2-41
HWNETFLOWMAN-3	2-41
HWNETFLOWMAN-4	2-41
HWPORTMAN Messages	2-43
HWPORTMAN-3	2-43
HWPORTMAN-4	2-44
HWPORTMAN-7	2-45
IDBMAN Messages	2-46
IDBMAN-3	2-46
IDBMAN-4	2-47
IDBMAN-6	2-48
IOSACLMAN Messages	2-48
IOSDIAGMAN Messages	2-49
IOSDHCP Snooping Messages	2-49
IOSIGMPSNOOPMAN Messages	2-50

IOSINTF Messages	2-50
IOSINTF-4	2-50
IOSINTF-5	2-51
IOSIPROUTEMAN Messages	2-53
IOSIPROUTEMAN-3	2-53
IOSIPROUTEMAN-4	2-54
IOSL2MAN Messages	2-55
IOSL3MAN Message	2-55
IOSMODPORTMAN Messages	2-55
IOSMODPORTMAN-2	2-55
IOSMODPORTMAN-3	2-57
IOSMODPORTMAN-4	2-57
IOSMODPORTMAN-6	2-61
C4K_IOSREDUNDANCYMAN Messages	2-64
IOSSYS Message	2-65
IOSSYS-3	2-65
IOSSYS-4	2-65
IOSSYS-7	2-65
IOSSYSMAN Messages	2-66
IOSSYSMAN-0	2-66
IOSSYSMAN-3	2-66
IOSSYSMAN-4	2-67
IPROUTEMAN Messages	2-67
IPROUTEMAN-3	2-67
IPROUTEMAN-4	2-70
L2MAN	2-71
L3HWFORWARDING Messages	2-71
L3HWFORWARDING-2	2-71
L3HWFORWARDING-3	2-71
L3HWFORWARDING-4	2-74
L3HWFORWARDING-6	2-75
LINECARD Messages	2-76
LINECARDMGMTPROTOCOL Messages	2-77
LOGGING REDIRECT Messages	2-77
LPIPMAN Messages	2-81
PKTPROCESSING Messages	2-81
PKTPROCESSING-3	2-81
PKTPROCESSING-4	2-83

PKTPROCESSING-5	2-84
PKTPROCESSING-7	2-85
PM Messages	2-85
PM-1	2-85
PM-2	2-85
PM-3	2-86
PM-4	2-86
PORTFANOUTASIC4X1000MAN Messages	2-91
PORTFANOUTASIC8X1000HW Messages	2-92
PORTFANOUTASIC8X1000HW-3	2-92
PORTFANOUTASIC8X1000HW-4	2-92
PORTFANOUTASIC8X1000HW-7	2-93
PORTFANOUTASIC8X100MAN Messages	2-93
PORTFANOUTASIC8X100MAN-4	2-93
PORTFANOUTASIC8X100MAN-7	2-94
QOS Messages	2-94
QOS IOS Messages	2-95
QOS Manager Messages	2-97
REDUNDANCY Messages	2-98
REDUNDANCY-1	2-98
REDUNDANCY-2	2-98
REDUNDANCY-3	2-101
REDUNDANCY-4	2-102
REDUNDANCY-5	2-103
REDUNDANCY-6	2-103
RETMAN Messages	2-104
S2W Messages	2-105
SPD Messages	2-105
SFF8472 Messages	2-106
SFF8472-2	2-106
SFF8472-3	2-106
SFF8472-5	2-106
SFF8472_FLOAT	2-107
SPANTREE Messages	2-107
SPANTREE-2	2-107
SPANTREE-3	2-111
SPANTREE-4	2-112
SPANTREE-5	2-112

SPANTREE-6	2-113
SPANTREE-7	2-113
SPANTREE_FAST	2-114
SPANTREE_VLAN_SW Messages	2-114
Supervisor Messages	2-114
STORM_CONTROL Messages	2-116
STORE Messages	2-116
SUPERVISOR Messages	2-117
SUPERVISOR-2	2-117
SUPERVISOR-3	2-117
SUPERVISOR-4	2-120
SUPERVISOR-7	2-121
SWITCH-QOS-TB Messages	2-121
SW_DAI Messages	2-122
SW_DAI-4	2-122
SW_DAI-6	2-123
SW-VLAN Messages	2-123
SW-VLAN-3	2-123
SW-VLAN-4	2-124
SW-VLAN-6	2-127
SWITCHINGENGINEMAN Messages	2-128
SWITCHINGENGINEMAN-2	2-128
SWITCHINGENGINEMAN-3	2-128
SWITCHINGENGINEMAN-4	2-136
SWITCHINGENGINEMAN-6	2-141
SWITCHINGENGINEMAN-7	2-141
SWITCHMANAGER Messages	2-141
SWITCHMANAGER-3	2-141
SWITCHMANAGER-4	2-142
SWITCHMANAGER-5	2-143
SWNETFLOWMAN Messages	2-143
SWNETFLOWMAN-4	2-143
SWNETFLOWMAN-6	2-144
SYSMAN Messages	2-144
SYSMAN-2	2-144
SYSMAN-3	2-145
SYSMAN-4	2-145
TRANSCEIVER Messages	2-145

- UFAST_MCAST_SW Messages 2-147
 - UFAST-3 2-147
 - UFAST-4 2-147
- VQPCLIENT Messages 2-148
 - VQPCLIENT-2 2-148
 - VQPCLIENT-3 2-149
 - VQPCLIENT-7 2-149
- WATCHDOG Messages 2-150

INDEX



Preface

This preface describes who should read the *Catalyst 4500 Series Switch Cisco IOS System Message Guide*, how it is organized, and its document conventions.

Audience

This publication is designed for installers and users with a working knowledge of the Catalyst 4500 series switch system software. Users of this publication might also include network administrators and other individuals responsible for setting up and maintaining these switches.

Organization

This publication is organized as follows:

Chapter	Title	Description
1	System Message Format	Describes how to read a system or error message.
2	Messages and Recovery Procedures	Contains explanations of messages and recommended actions.

Related Documentation

The following publications are available for the Catalyst 4500 series switches:

Catalyst 4500 Series Switch Documentation Home

- http://www.cisco.com/en/US/products/hw/switches/ps4324/tsd_products_support_series_home.html

Catalyst 4500 Series Switches Installation Guide (DOC-7814409=)

- http://www.cisco.com/en/US/products/hw/switches/ps4324/products_installation_guide_book09186a0080126d3d.html

Catalyst 4500 Series Module Installation Guide (DOC-786444=)

- http://www.cisco.com/en/US/products/hw/switches/ps4324/products_module_installation_guide_book09186a008009c17d.html

Catalyst 4500 Series Regulatory Compliance and Safety Information (DOC-7813233=)

- http://www.cisco.com/en/US/products/hw/switches/ps4324/products_regulatory_approvals_and_compliance09186a00800d7676.html

Installation notes for specific supervisor engines or for accessory hardware are available at:

- http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_installation_guides_list.html

Software Documentation

The abilities of your switch and the modules supported depend greatly on the software you have installed. Each software release typically has each of the following:

- Release Note
http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_release_notes_list.html
- Configuration Guide
http://www.cisco.com/en/US/products/hw/switches/ps4324/products_installation_and_configuration_guides_list.html
- Command Reference
http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_command_reference_list.html
- System Message Guide
http://www.cisco.com/en/US/products/hw/switches/ps4324/products_system_message_guides_list.html

You may want to bookmark the guides appropriate to your software release.

- For information about MIBs, go to the following URL:
<http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>

Conventions

This publication uses the following conventions:

Convention	Description
boldface font	Commands, command options, and keywords are in boldface .
<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.

Convention	Description
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.
boldface screen font	Information you must enter is in boldface screen font .
<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, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>



CHAPTER 1

System Message Format

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

This chapter contains the following sections:

- [Message Structure, page 1-1](#)
- [Error Message Traceback Reports, page 1-5](#)

Message Structure

The message includes the following information:

- Facility code
- Severity level
- Mnemonic code
- Description field

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
ACLSNOOPMAN	ACL Snooping
ARPSNOOPINGMAN	ARP Snooping
BUFFERMANAGER	Memory buffer management
CHASSIS	Chassis
COMMONHWACLMAN	Common hardware ACL management

Table 1-1 Facility Codes (continued)

Code	Facility
COMMONSTUBMAN	ASIC-specific messages
DHCP_SNOOPING	DHCP snooping messages
DOT1X	802.1X-related port-based authentication
DTP	Dynamic Trunking Protocol
EBM	Ethernet bridge management
EC	EtherChannel
FLASH	Flash memory
GBICMAN	Gigabit Interface Converter (GBIC) manager
HW	Hardware
HWACLMAN	Hardware ACL management
HWL2MAN	Layer 2 hardware management
HWNETHFLOWMAN	NetFlow management
HWPORTMAN	Hardware port management
IDBMAN	Interface descriptor block management
ILCPROTOCOLERROR	ILC protocol
IOSACLMAN	Cisco IOS ACL management
IOSDIAGMAN	Cisco IOS Diagnostic Manager
IOSDHCP SnoopMAN	Cisco IOS DHCP snoop management
IOSIGMPSNOOPMAN	Cisco IOS IGMP snoop management
IOSINTF	Catalyst 4500 IOS interface operation
IOSIPROUTEMAN	Cisco IOS IP Route Manager
IOSL2MAN	Cisco IOS Layer 2 Manager
IOSL3MAN	Cisco IOS Layer 3 Manager
IOSMODPORTMAN	Cisco IOS module Port Manager
IOSREDUNDANCYMAN	Cisco IOS redundancy manager
IOSSYS	Catalyst 4500 IOS system
IOSSYSMAN	Catalyst 4500 IOS system management
IPROUTEMAN	Catalyst 4500 IOS IP routing management
L2MAN	Layer 2 hardware management
L3HWFORWARDING	Layer 3 hardware forwarding
LINECARDMGMTPROTOCOL	Line Card Management Protocol
LOGGING_REDIRECT	Logging Redirect ISSU
LPIPMAN	LAN Port IP (LPIP) dynamic host policies
PKTPROCESSING	Packet processing
PM	Port manager
PORTFANOUTASIC4X1000MAN	Port fan-out ASIC 4x1000 management

Table 1-1 Facility Codes (continued)

Code	Facility
PORTFANOUTASIC8X1000HW	Port fan-out ASIC 8x1000 hardware
PORTFANOUTASIC8X100MAN	Port fan-out ASIC 8x100 management
QOS	Quality of Service
REDUNDANCY	Redundant supervisor
S2W	Calendar
SPD	SPD
SFF8472	Floating-point subsystem (SFF8472)
SPANTREE	Spanning Tree Protocol
SPANTREE_VLAN_SW	Spanning Tree VLAN switch management
STORM_CONTROL	Broadcast storm control
STORE	Memory
SUPERVISOR	Supervisor
SWITCH-QOS-TB	Switch QoS management
SW_DAI	Dynamic ARP inspection
SW-VLAN	Switch VLAN management
SWITCHINGENGINEMAN	Switching engine management
SWITCHMANAGER	Switch management
SWNETFLOWMAN	Software NetFlow management
SYSMAN	System management
TRANSCIEVER	TRANSCEIVER subsystem
UFAST	UplinkFast
VQPCLIENT	VLAN query protocol client
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
4	Warning—Warning condition

Table 1-2 Message Severity Levels (continued)

Severity Level	Description
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. All mnemonics are all uppercase character strings.

Message Text

Message text is a text string that describes the error condition. The text string may contain 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 that are 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
<i>[dec]</i>	Decimal
<i>[chars]</i> or <i>[char]</i>	Character string
<i>[hex]</i>	Hexadecimal integer
<i>[num]</i>	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 that is 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 that are printed in the message indicate which lines of code caused the message to occur.



CHAPTER 2

Messages and Recovery Procedures

This chapter lists and describes the Cisco IOS system error messages by facility for the Catalyst 4500 series switch. 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.

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 messages are purely informational, while other messages help diagnose problems with communication lines, internal hardware, or the system software.



Note

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.



Note

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. We do not recommend that you change the factory defaults, because this action can cause the module to malfunction.

If the explanation that is provided for a given command does not sufficiently explain your problem and no recommended action is given, copy the error message exactly as it appears on the console or in the system log.

You should research and attempt to resolve the error using the Output Interpreter at this URL:
<https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>.

You can also enter the **show tech-support** command to gather additional information about the error. If the error message text, information from the Output Interpreter, or 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 that you have gathered. For detailed information on how to contact your technical support representative, see the “[Obtaining Documentation, Obtaining Support, and Security Guidelines](#)” section on page xi.

ACL Messages

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

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. The configuration might have 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 the problem persists, contact your technical support representative.

ACL Snooping Messages

This section contains the access control list management (ACLSNOOPMAN) messages.

Error Message C4K_ACLSNOOPMAN-4-ACLALLOCFAILURE: Acl Allocation for [char] failed.

Explanation A new IOS ACL was created but there is no memory for the analogous platform ACL. ACL-based snooping will not function properly on the interface.

Recommended Action Alter or remove the configuration on the switch to reduce memory use.

Error Message C4K_ACLSNOOPMAN-4-ACLFEATUREALLOCFAILURE: AclFeature Allocation for Acl Id: [dec] failed.

Explanation Memory for the platform ACL-related data structures is exhausted. ACL-based snooping will not function properly on the interface.

Recommended Action Alter or remove the configuration on the switch to reduce memory use.

ARP Snooping Messages

This section contains the ARP snooping message.

Error Message C4K_ARPSNOOPINGMAN-4-OUTOFRESOURCES: Resources for constructing ACLs are not available.

Explanation Software resources are not available to setup hardware to redirect ARP packets to software. Dynamic ARP inspection will not work if this log message appears.

Recommended Action Unconfigure other TCAM related features to reduce switch memory requirements and reconfigure the ACL.

Bad ID Messages

This section contains the EEPROM ID messages.

Error Message C4K_BAD_ID_HW-3-AUTHENTICATIONFAILUREFANTRAY: The Fan tray failed to authenticate and may not be a genuine Cisco product

Explanation The fan tray failed authentication for one of two reasons. The fan tray is either counterfeit or the authentication process on the fan tray is broken. The fan tray will continue to operate, but keep in mind it may be counterfeit.

Recommended Action Please return the fan tray to Cisco TAC for further analysis.

Error Message C4K_BAD_ID_HW-3-AUTHENTICATIONFAILUREMODULE: Module [dec] failed to authenticate and may not be a genuine Cisco product

Explanation A switching module or supervisor engine failed authentication for one of two reasons. The switching module or supervisor engine is either counterfeit or the authentication process on the switching module or supervisor engine is broken. If a supervisor engine fails authentication, it will continue to operate, but keep in mind it may be counterfeit. If a switching module fails authentication, it will be disabled.

Recommended Action Please return the switching module or supervisor engine to Cisco TAC for further analysis.

BUFFERMANAGER Messages

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 ran out of the internal memory buffers that are used for various tasks. This error is unusual because the internal buffers are used for only a short time, released, and then available for reuse. Typically, this condition is transitory.

Recommended Action If the message persists, reboot the switch.

CHASSIS Messages

This section contains the chassis (CHASSIS) messages.

CHASSIS-2

Error Message C4K_CHASSIS-2-ALLCHASSISSEEPROMSINVALID: Contents of all chassis's serial eeproms are invalid

Explanation The contents of all of the chassis's serial EEPROMs are invalid. In non-redundant chassis, there is one serial EEPROM, and it is bad. If this is a redundant chassis, there are two serial EEPROMs, and they are both bad.

Recommended Action Try removing and reinserting the supervisor engine. If that doesn't work, try power cycling the switch. If the serial EEPROM is still invalid, this chassis should be returned.

Error Message C4K_CHASSIS-2-SUPERVISORSEEPROMINVALID: Contents of supervisor's serial eeprom are invalid

Explanation The contents of the supervisor engine's serial EEPROM are invalid. For example, a bad checksum or the supervisor engine type doesn't match with the other hardware information. This could happen if the read failed because the supervisor engine isn't seated correctly in the slot.

IOS considers this supervisor engine faulty and will not bring up the chassis' interfaces.

Recommended Action Try removing and reinserting the supervisor engine. If that doesn't work, try power cycling the switch. If the switch still fails to come online, this supervisor engine should be returned.

Error Message C4K_CHASSIS-2-SLOTTOVERHEATINGSHUTDOWN: Resetting linecard in slot [dec] due to critical temperature

Explanation Critical temperature for a module has been exceeded. The module has been reset to reduce heat generation.

Recommended Action Remove and reinsert the module after some cooling period. If the problem persists, the module has failed and needs to be replaced.

Error Message C4K_CHASSIS-2-MUXBUFFERSEEPROMINVALID: Invalid data in mux buffer [dec]'s serial eeprom

Explanation The mux buffer's serial EEPROM could not be read or has not been programmed. This may impact traffic.

Recommended Action Please contact Cisco TAC to confirm that it is okay to continue using this mux buffer.

Error Message C4K_CHASSIS-2-MUXBUFFERTYPENOTSUPPORTED: Mux Buffer in slot [dec] of unsupported type [dec] .

Explanation The Mux Buffer in this slot is not supported by this software. This may impact traffic.

Recommended Action Please contact Cisco TAC to confirm that it is okay to continue using this mux buffer.

Error Message C4K_CHASSIS-2-INLINEPOWEROFF:Inline power to the switch has been turned off

Explanation Software detected that the pass-through current is disabled. This condition will cause all phones drawing PoE from the switch to be powered off.

Recommended Action If you want PoE, verify that the in-line power switch on the power supply is turned on.

Error Message C4K_CHASSIS-2-INSUFFICIENTFANSDETECTED: Too few working fans in fan tray, the chassis will overheat. If not resolved, in [dec] minutes [dec] seconds all line cards will be placed into Reset-Mode

Explanation Two or more fans in the system fan tray are malfunctioning, or the fan tray has been removed. 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-INSUFFICIENTFANSDETECTEDPOWERDOWN: Too few working fans in fan tray, the chassis will overheat. If not resolved, in [dec] minutes [dec] seconds the chassis will power down

Explanation Two or more required fans in the fan tray are malfunctioning, or the fan tray has been removed. Software will reset the modules to reduce heat generation, and power down the switch to prevent overheating damage to components.

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 condition persists, software will reset the modules.

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: Holding module in slot [dec] in reset, due to insufficient power

Explanation The switch was using more power than is available for the allowed time interval. Software reset the modules to reduce power consumption.

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

Error Message C4K_CHASSIS-2-OVERHEATINGSHUTDOWN:Resetting linecards due to critical temperature

Explanation The switch is now warmer than its maximum allowable operating temperature. Software will reset modules to reduce heat generation.

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

Error Message C4K_CHASSIS-2-MUXBUFFERNOTPRESENT: Mux buffer [dec] is not present

Explanation The mux buffer card is either not connected to the backplane properly or is not present. This will render the impacted slot useless. The switching module present in this slot cannot be identified, its SEEPROM cannot be read and it will be as good as non-existent.

Recommended Action Reseat the mux buffers as described the hardware documentation. If the problem persists, return the backplane to get it fixed immediately.

CHASSIS-3

Error Message C4K_CHASSIS-3-ALLMODULETEMPERATURESENSORSFAILED: All temperature sensors on module [dec] have failed

Explanation All temperature sensors on the module have failed. If an over-temperature condition develops, the module will be unable to detect and report it.

Recommended Action If this message appears only once, this could be a transient error and no action is required. If this message appears repeatedly, have the module repaired.

Error Message C4K_CHASSIS-3-BADMACRANGEINSPROM:Module [dec]'s serial eeprom contains [dec] mac addresses, but needs [dec]

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

Recommended Action Contact your technical support representative; you will likely have to return the module to Cisco to reprogram the serial EEPROM.

Error Message C4K_CHASSIS-3-CHASSISTYPEMISMATCHINSPROM: Supervisor's FPGA register chassis type is [char], but chassis' serial eeprom chassis type is [char]

Explanation The chassis type in the supervisor engine's FPGA register doesn't match the type in the chassis' serial EEPROM.

Recommended Action Check the chassis serial EEPROM information, using the **show idprom chassis** command. This should never happen in a production chassis. If it does, the chassis needs to be returned.

Error Message C4K_CHASSIS-3-CLOCKMODULESEEPROMINVALID: Invalid Clock Module seeprom data

Explanation A failure occurred while reading the clock module serial EEPROM. This message should occur only in a prototype switch used in an early field trial.

Recommended Action Contact your technical support representative. You may need to return some switch components for repair or replacement.

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 the type of card, the card remains offline, as if it was not installed on the module.

Recommended Action Remove the module, and then remove and reseat the daughter card in the module. If this message reappears after you reinsert the module into the switch, the serial EEPROM might be bad. Contact your technical support representative; you will likely have to return the module to Cisco to reprogram or replace the serial EEPROM.

Error Message C4K_CHASSIS-3-FANTRAYSEEPROMINVALID: Invalid fan tray seeprom data

Explanation A failure occurred while reading the system fan tray serial EEPROM. This message should occur only in a prototype switch used in an early field trial.

Recommended Action Reseat the fan tray to see if the message is due to a faulty connection. If it persists, contact your technical support representative. You may need to return some switch components for repair or replacement.

Error Message C4K_CHASSIS-3-FIRSTCHASSISSEEPROMINVALID: Contents of chassis's first serial eeprom are invalid

Explanation The contents of the chassis's first serial EEPROM are invalid. This message only appears in a redundant chassis, 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.

Error Message C4K_CHASSIS-3-INSUFFICIENTPOWER: Insufficient power to bring up module in slot [dec]

Explanation The module type was 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 Either remove the module or upgrade the power supply to expand the power capacity of the chassis.

Error Message C4K_CHASSIS-3-INSUFFICIENTPOWERSUPPLIESDETECTED: Insufficient power supplies present for specified configuration

Explanation The system software 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-INVALIDMGMTETHERNETADDR: Chassis SPROM not set or invalid MAC address range

Explanation The out of band management port uses a MAC address from the system's MAC address range. The contents of the system's SPROM are bad, so the out of band management port does not have a MAC address.

Recommended Action Contact your technical support representative. You may need to return some switch components for repair or replacement.

Error Message C4K_CHASSIS-3-LINECARDNOTSUPPORTEDINCHASSIS: Module [char] is not supported in this chassis.

Explanation The module identified in the message is not supported in the chassis. For example, modules requiring 24 Gbps of backplane capacity are not supported in chassis providing only 6 Gbps on the backplane.

Recommended Action Refer to the release notes and module documentation to find which chassis supports this module.

Error Message C4K_CHASSIS-3-LINECARDMUXBUFFERTOSUPALIGNMENTWRONG: Linecard [dec] MuxBuffers aligned towards supervisor in slot [dec] instead of [dec]

Explanation The mux buffers that work with the switching module in the mentioned slot are configured to work with the standby supervisor engine. The switching module is completely unusable in this condition.

Recommended Action Try removing and reinserting the affected switching module. If that doesn't work, try resetting the switch. If the problem persists, contact your technical support representative.

Error Message C4K_CHASSIS-3-MIXINVOLTAGEDETECTED: Power supplies in the chassis are receiving different voltage inputs

Explanation All the inputs to a chassis must be at the same voltage. Mixed voltage inputs are not supported.

Recommended Action Change the power supplied to the switch so that all inputs to the chassis are of the same type.

Error Message C4K_CHASSIS-3-MODULEBRINGUPTIMEDOUT: Module [dec] software bring up did not complete within allocated time

Explanation The module bring up could not be completed within pre-allocated time. The module status will be shown as faulty.

Recommended Action Please try using **hw-mod module <module number> reset** command and check if the problem occurs again. If it does, please contact Cisco technical support to get further assistance.

Error Message C4K_SUPERVISOR-3-MUXMAYMISALIGN: Linecard Mux-buffers may mis-align to incorrect supervisor due to reset with other supervisor desires to be active

Explanation While resetting the switching modules and taking them out of reset the other supervisor engine is trying to become active using hardware hot-standby logic. This may cause incorrect alignment of the switching module mux-buffers to use the non-active supervisor engine, and the switch will not be able to pass traffic until the alignment is reset.

Recommended Action Reset the other supervisor engine using the **redundancy reload peer** command, and contact your technical support representative to report the failure.

Error Message C4K_CHASSIS-3-LINECARDNOTVALIDINSLOT: Linecard [char] is not supported in slot [dec], try slots [char].

Explanation The supervisor engine identified the type, but the switching module cannot be supported in this slot due to the insufficient number of backplane ports in this slot.

Recommended Action Remove the module from the slot and place it in the alternative slot listed in the message.

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 failed to identify the module type. The read might fail if the module is not seated correctly in the slot.

Recommended Action Remove and reinsert the module. If this message reappears, reboot the switch. If the problem persists, contact your technical support representative. You will likely have to return the module to Cisco to reprogram or replace the serial EEPROM.

Error Message C4K_CHASSIS-3-LINECARDSEEPROMWRITEFAILED:Failed to write module [dec]'s serial eeprom

Explanation A write operation to the serial EEPROM failed. The write might fail if the module is not seated correctly in the slot.

Recommended Action Remove and reinsert the module. If this message reappears, reboot the switch. If the problem persists, contact your technical support representative. You will likely have to return the module to Cisco to reprogram or replace the serial EEPROM.

Error Message C4K_CHASSIS-3-MIXINPOWERDETECTED:Power supplies in the chassis are of different types (AC/DC) or wattage

Explanation The software detected different kinds of power supplies in the chassis. In a Catalyst 4006 chassis, the power values default to the wattage of the weakest power supply. If you mix power supplies in a Catalyst 4500 series chassis, the switch will use the power supply in power supply bay 1 (PS1) and ignore the power supply in power supply bay 2 (PS2). We do not recommend mixing power supplies of different wattages.

Recommended Action Verify that both power supplies are the same kind and wattage. Replace a power supply if necessary.

Error Message C4K_CHASSIS-3-MIXINVOLTAGEDETECTED: Power supplies in the chassis are receiving different voltage inputs

Explanation All the inputs to a chassis must be at the same voltage. Mixed voltage inputs are not supported.

Recommended Action Replace one of the power supplies so that the power supplies used are of the same model.

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 preproduction switching modules have interfaces that do not work in half-duplex mode. This module is probably a prototype.

Recommended Action Contact your technical support representative; you will likely have to return the module to Cisco.

Error Message C4K_CHASSIS-3-OLDWSX4124: WS-X4124-FX-MT revision [dec].[dec], which is < 1.6, is not supported

Explanation WS-X4124-FX-MT modules with revisions < 1.6 are not supported.

Recommended Action This module needs to be replaced with a WS-X4124-FX-MT module that has a newer hardware revision number.

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 SFPs. It marks any other type of Small Form-Factor Pluggable (SFP) as faulty.

Recommended Action Replace the SFP with an LX SFP that Cisco supports.

Error Message C4K_CHASSIS-3-OUTOFMEMORY:Ran out of memory - cannot allocate internal buffers

Explanation The switch ran out of memory in the temporary buffers.

Recommended Action If this message reappears, reboot the switch.

Error Message C4K_CHASSIS-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_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 tried to read it back in, to ensure that the correct values were written out. What the switch read back in differs from what the switch wrote out. The read or write might fail if the module is not seated correctly in the slot.

Recommended Action Remove and reinsert the module. If that does not work, reboot the switch. If the problem persists, contact your technical support representative. You will likely have to return the module to Cisco to reprogram or replace the serial EEPROM.



Note 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. We do not recommend that you change the factory defaults, because this action could cause the module to malfunction.

Error Message C4K_CHASSIS-3-TRANSCEIVERCRCINTEGRITYCHECKFAILED: transceiver integrity check on port [char] failed: bad crc

Explanation The checksum of the transceiver SEEPROM is not valid, indicating a bad or non-Cisco transceiver. Only Cisco-qualified transceivers are supported. Other transceivers will cause the associated port to show as faulty.

Recommended Action Replace the transceiver with a transceiver that Cisco supports.

Error Message C4K_CHASSIS-3-TRANSCEIVERINTEGRITYCHECKFAILED: transceiver integrity check on port [char] failed: bad key

Explanation Only Cisco-qualified transceivers are supported. Other transceivers will cause the associated port to show as faulty.

Recommended Action Replace the transceiver with an transceiver that Cisco supports.

Error Message C4K_CHASSIS-3-TRANSCEIVERSERIALINTEGRITYCHECKFAILED: transceivers on ports [char] and [char] have duplicate serial numbers

Explanation Only Cisco-qualified transceivers are supported. Other transceivers place the associated port in the faulty status.

All transceivers must have a unique serial number. If this message appears you likely have a cloned transceiver SEEPROM.

Recommended Action Replace the transceiver with a transceiver that Cisco supports.

Error Message C4K_CHASSIS-3-STUBPHYMISMATCH: Stub type mismatch: stub [dec]/[dec] is type [dec], should be type [dec]

Explanation The stubs have non-matching physical types for the specified module.

Recommended Action Verify that the physical types for every stub on the module match.

Error Message C4K_CHASSIS-3-SUPERVISORTYPEMISMATCHINSPROM: Supervisor's FPGA register type is [dec], but supervisor's serial eeprom type is [dec]

Explanation The type in the supervisor engine's FPGA register doesn't match the type in the supervisor engine's serial EEPROM. This might happen if the IDPROM is misprogrammed or the supervisor engine's FPGA register somehow returns an incorrect value. Both are extremely unlikely.

Recommended Action Check the FruMinorType field in the supervisor engine's serial EEPROM, using the **show idprom supervisor** command. The output should be the same as the number printed in this log message for the FPGA register type. This should never happen with a production supervisor engine. If it does, replace the supervisor engine.

Error Message C4K_CHASSIS-3-UNKNOWNLINECARD: Unknown module (Field Replaceable Unit minor type [dec]) in slot [dec]

Explanation The module's serial EEPROM was readable, and your software image does not recognize this 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 engine's serial programmable read-only memory (SPROM) is not allowed, because if it is done incorrectly, it could make the system unusable.

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

Error Message C4K_CHASSIS-4-INLINEPOWERRESTORED: Resuming normal phone operation since inline power has been restored

Explanation PoE to the switch was restored, and normal phone operation will resume.

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

Error Message C4K_CHASSIS-4-OVERHEATINGOVER: Resuming normal operation after return to acceptable temperatures.

Explanation The unit's modules were reset to reduce heat generation, because the unit reached a critical temperature. The switch is now cool enough to return to normal operation.

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

Error Message C4K_CHASSIS-4-SUFFICIENTFANSRESTORED: Resuming normal operation after restoration of adequate fan cooling

Explanation The modules were reset to reduce heat generation because there were not enough working fans. Adequate fan cooling is now restored, and the switch will resume normal operation.

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

Error Message C4K_CHASSIS-4-SLOTOVERHEATINGOVER: Resuming normal operation in slot [dec] after return to acceptable temperatures.

Explanation The module has been reset to reduce heat generation since it exceeded critical temperature. It has returned to acceptable temperature and normal operation is resuming.

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

Error Message C4K_CHASSIS-4-SUFFICIENTMODULEPOWERRESTORED: Module in slot [dec] resuming normal operation after restoration of adequate power

Explanation The module was reset to conserve power because the system had inadequate power available. The switch now has adequate power and is resuming normal operation.

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

Error Message C4K_CHASSIS-4-SUFFICIENTPOWERRESTORED: Resuming normal operation after restoration of adequate power

Explanation The switch reset the modules to conserve power, but it now has adequate power and will resume normal operation.

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

Error Message C4K_CHASSIS-4-SOMEMODULETEMPERATURESENSORSFAILED: Some temperature sensors on module [dec] have failed

Explanation Some temperature sensors on the module have failed. This may restrict the module's ability to detect over-temperature conditions. If further sensors fail, the module will be unable to detect over-temperature conditions.

Recommended Action If this message appears only once, this could be a transient error and no action is required. If this message appears repeatedly (once every hour), return the module for repair.

Error Message C4K_CHASSIS-4-TDRTESTINPROGRESS: TDR test is in progress on interface [char]

Explanation The TDR test is already in progress on this interface.

Recommended Action Try the command again after the test is completed.

Error Message C4K_CHASSIS-4-TESTNOTSUPPORTEDONPORT: [char] is not supported on this port

Explanation The online diagnostic test requested cannot be run on the specified port.

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

Error Message C4K_CHASSIS-4-TESTNOTSUPPORTEDONPORTCONNECTOR: [char] is not supported on port connector type: [char]

Explanation This online diagnostic test cannot be run on the specified port with the current connector type. If the connector type changes to copper, it may be possible to run the test.

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

Error Message C4K_CHASSIS-4-UNSUPPORTEDTRANSCEIVER: Unsupported transceiver found in [char]

Explanation The transceiver was identified as an unsupported non-Cisco transceiver.

Recommended Action If this transceiver was purchased from Cisco, contact Cisco TAC to get the transceiver replaced.

Error Message C4K_CHASSIS-7-SYSTEMMEMORYINSTALLED: [dec] MB of system memory installed. Do 'show platform hardware sdram spd' for details.

Explanation This tells how much memory has been installed, on supervisor engines s having more than one DIMM slot.

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

CHASSIS-5

Error Message C4K_CHASSIS-5-POEFIXED: Poe fixed on slot [dec] (count=[dec])

Explanation Under very rare conditions, due to an anomaly in hardware state that includes transients in input power supply, PoE on a slot is restarted by software.

Recommended Action If the message shows up rarely and coincides with external events such as input power supplies being changed, this message can be safely ignored. If the message shows up continuously, please contact your Cisco technical support representative.

Error Message C4K_CHASSIS-5-POERESTARTED: Poe restarted on slot [dec] (count=[dec])

Explanation Software detected a glitch on the power input to the chassis power supplies and had to restart PoE on one or more slots.

Recommended Action Please verify that the power provided to the switch conforms to Cisco's recommendations. If the power input to the chassis is good and the message is showing up continuously, please contact your Cisco technical support representative.

Error Message C4K_CHASSIS-5-PORTSPOERESTARTED: Poe restarted for interfaces on slot [dec] (count=[dec])

Explanation Software detected a glitch on the power input to the chassis power supplies and had to restart PoE on the specified slot.

Recommended Action Please verify that the power provided to the switch conforms to Cisco's recommendations. If the power input to the chassis is good and the message is showing up continuously, please contact your Cisco technical support representative.

COMMONHWACLMAN Messages

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

COMMONHWACLMAN-4

Error Message C4K_COMMONHWACLMAN-4-ALLACLINHW: All configured ACLs now fully loaded in hardware TCAM - hardware switching / QoS restored

Explanation All ACL-based features are now successfully loaded. Packets that were previously processed in software due to the prior loading failure will now be processed in hardware.



Note If the features were policy maps, then QoS will be reenabled on all applicable interfaces.

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

Error Message C4K_COMMONHWACLMAN-4-HWPROGSUCCESS: [char] [char] - now fully loaded in hardware

Explanation An ACL-based feature has now been successfully loaded after earlier failing to be fully programmed into hardware. Packets using this feature that were being processed in software due to the prior loading failure will now be processed in hardware. If the feature is a policy map, then QoS will be reenabled on the specific interface.

Recommended Action This is an informational message only. No action is required. This log messages indicates a resumption of normal hardware-based ACL and QoS processing for the specified ACL-based feature

Error Message C4K_COMMONHWACLMAN-4-OUTOFPATHS: Could not allocate path for ([object-info])

Explanation There are too many ports or VLANs using ACLs. The ACLs might not work correctly.

Recommended Action Remove unnecessary ACLs from some interfaces.

Error Message C4K_COMMONHWACLMAN-4-OUTOFLABELS: No more free labels available for path ([object-info])

Explanation A new label could not be assigned for an ACL that the user is trying to program. There are too many labels being used. As a result, software will apply security ACLs, and will not apply QoS features. It's possible too many distinct features using ACLs have been configured, or too many per-port per-VLAN features using ACLs have been configured. The hardware will forward the packets to the CPU for ACL processing.

Recommended Action Detaching and reattaching ACLs or policies may help in some cases.

Error Message C4K_COMMONHWACLMAN-4-PERMITALL: Out of resources for Qos, permit all for [object-info]

Explanation The switch is running out of hardware CAM resources. All packets are permitted, and QoS is applied.

Recommended Action Remove unnecessary ACLs from some interfaces.

Error Message C4K_COMMONHWACLMAN-4-PORTBASEDACLSDISABLED: Output Port Acl [char]100 has been disabled on port [char]

Explanation The output port ACL is disabled on the interface because there are not enough hardware resources or there are ACEs that require CPU processing of packets.

The port ACL is disabled and displays a warning message because the software cannot handle the output port ACLs.

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

Error Message C4K_COMMONHWACLMAN-4-PUNTTO SOFTWARE: Out of resources, punt packets to sw for [object-info]

Explanation The hardware content-addressable memory (CAM) resources have been depleted. The hardware forwards the packets to the software for ACL processing.

Recommended Action Remove unnecessary ACLs from some interfaces.

COMMONSTUBMAN Messages

This section contains the Catalyst 4500 series ASIC-specific messages.

C4K_COMMONSTUBMAN-4

Error Message C4K_COMMONSTUBMAN-4-DIAGSFAILED: [char] failed diagnostics

Explanation An ASIC in slot [char] failed diagnostics.

Recommended Action Contact your technical support representative.

Error Message C4K_COMMONSTUBMAN-4-FAILEDTOSENDLOOPBACKTRIES: [char] port [dec] failed to send packet in [dec] tries

Explanation An ASIC in slot [char] was unable to send a loopback packet on port [dec] and this is the [dec]th time it tried to send and failed. This suggests that the switch is out of memory. The software will attempt to send a loopback packet only three times.

Recommended Action Contact your technical support representative.

Error Message C4K_COMMONSTUBMAN-4-UNEXPECTEDLOOPBACK: [char] sent out a loopback packet on port [dec], but it came back on port [dec]

Explanation The ASIC diagnostics for slot [char] sent a loopback packet out port [dec] and it came back on another port [dec]. This is unexpected because the loopback is done within the hardware.

Recommended Action Contact your technical support representative.

C4K_COMMONSTUBMAN-7

Error Message C4K_COMMONSTUBMAN-7-LOSTPACKET: [char] port [dec] lost a packet

Explanation A loopback packet was lost during online diagnostics of an ASIC in slot [char].

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

DHCP SNOOPING Messages

This section contains the DHCP snooping (DHCP_SNOOPING) messages.

DHCP_SNOOPING-3

Error Message DHCP_SNOOPING-3-DHCP_SNOOPING_INTERNAL_ERROR: DHCP Snooping internal error [char]

Explanation A software sanity check failed in the DHCP snooping process. This message may also show up if the system is running out of memory or resources.

Recommended Action Please reduce resource consumption by disabling features, ports, or packets destined to software. If the condition persists, please call Cisco technical support.

DHCP_SNOOPING-4

Error Message DHCP_SNOOPING-4-AGENT_OPERATION_FAILED_N: DHCP snooping binding transfer failed ([dec]). [chars]

Explanation This message is logged once every 30 minutes and displays the [dec] number of failures that occurred for a given reason [chars] during the past 30 minutes.

This message is a rate-limited version of the DHCP_SNOOPING-4-AGENT_OPERATION_FAILED message.

Recommended Action Based on the reason for the error [chars], look at the explanation for the DHCP_SNOOPING-4-AGENT_OPERATION_FAILED message, and take the appropriate action.

Error Message DHCP_SNOOPING-4-AGENT_OPERATION_FAILED: DHCP snooping binding transfer failed. Unable to access URL.

Explanation The DHCP snooping binding transfer failed. The reason for failure can include any of the following:

- The URL is not available to use.
- Not enough memory is available for creating an agent.
- The number of agents reached the maximum supported limit.
- The switch is unable to create an agent.
- The switch is unable to access the URL.
- The switch is unable to start the agent.
- The Abort timer expired.
- The number of entries exceeded the maximum supported limit.
- An error occurred when reading the remote database.
- An error occurred while writing to the remote database.
- DHCP snooping expected more data during the read.
- The string type is invalid.
- The version string type is invalid.
- DHCP snooping is expecting a new line in the database.
- 'TYPE' was not found in the remote database.
- 'VERSION' was not found in the remote database.
- 'BEGIN' was not found in the remote database.
- 'END' was not found in the remote database.
- The type string was not found in the remote database.
- The version string was not found in the remote database.
- The checksum failed upon entry into the remote database.

Recommended Action Based on the reason for the error (listed above), take the appropriate action.

Error Message DHCP_SNOOPING-4-DHCP_SNOOPING_DATABASE_FLASH_WARNING: Saving DHCP snooping bindings to [char] can fill up your device causing the writes of bindings to device

Explanation Saving DHCP snooping bindings to a flash file system such as bootflash or slot0 could cause the flash to fill up. Possible consequences include a long delay to regain a console connection, write failures for database configurations, regular squeeze requirements, and reduced life of flash due to regular squeeze operations.

Recommended Action Save the DHCP snooping bindings to an alternate destination. Possible locations for the database agent include a TFTP or FTP server. Please see the command line help for a complete list of options.

Error Message DHCP_SNOOPING-4-DHCP_SNOOPING_RATE_LIMIT_EXCEEDED: The interface [char] is receiving more than the threshold set

Explanation This message indicates that DHCP packets are coming into the CPU at a much higher rate than the specified threshold.

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

Error Message DHCP_SNOOPING-4-INVALID_RELEASE_OR_DECLINE_PKT: The interface [char] has received a DHCP Release/Decline packet with no existing binding entry for it

Explanation This message indicates that a DHCP Release/Decline packet was received with no corresponding binding entry.

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

Error Message DHCP_SNOOPING-4-OPTION82_INSERTION_FAIL: The interface [char] is not able to insert opt82 into the packet because of insufficient space in the packet

Explanation This message indicates that certain data was not inserted into a DHCP packet due to insufficient space in the packet.

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

Error Message DHCP_SNOOPING-4-DHCP_SNOOPING_ERRDISABLE_WARNING: DHCP Snooping received [dec] DHCP packets on interface [char]

Explanation DHCP snooping detected a DHCP packet rate-limit violation on the specified interface. The interface will be placed in the errdisable state.

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

Error Message DHCP_SNOOPING-4-DHCP_SNOOPING_PVLAN_WARNING: DHCP Snooping configuration may not take effect on secondary vlan [dec]. [char]

Explanation DHCP snooping configuration on the primary VLAN automatically propagates to all secondary VLANs if private VLANs are enabled.

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

Error Message DHCP_SNOOPING-4-IP_SOURCE_BINDING_PVLAN_WARNING: IP source filter may not take effect on secondary vlan [dec] where IP source binding is configured. [char]

Explanation The IP source filter on the primary VLAN automatically propagates to all secondary VLANs if private VLANs are enabled.

Recommended Action Reconfigure the IP source binding to a known functioning VLAN.

Error Message DHCP_SNOOPING-4-IP_SOURCE_BINDING_NON_EXISTING_VLAN_WARNING: IP source binding is configured on non existing vlan [dec].

Explanation IP source binding was configured on a VLAN that has not yet been configured.

Recommended Action This is an informational message only. No action is required. It may persist unless you define the VLAN in question and then reapply the IP source binding. If you see this message regarding a VLAN that is correctly configured, contact your technical support representative.

Error Message DHCP_SNOOPING-4-NTP_NOT_RUNNING: NTP is not running; reloaded binding lease expiration times are incorrect.

Explanation If the DHCP snooping bindings are loaded by the DHCP snooping database agent and NTP is not running, then the calculated lease duration for the bindings will be incorrect.

Recommended Action Configure NTP on the switch to provide an accurate time and date for the system clock. Then disable and re-enable DHCP snooping to clear the bindings database.

Error Message DHCP_SNOOPING-4-QUEUE_FULL: Fail to enqueue DHCP packet into processing queue: [char]

Explanation DHCP packets are coming into the CPU at a much higher rate than the DHCP snooping process can handle them. These unhandled DHCP packets will be dropped to prevent a denial of service attack.

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

Error Message DHCP_SNOOPING-4-SSO_SYNC_ACK_ERROR: Error is encountered in processing acknowledgement for DHCP snooping binding sync [char]. ack message txn id:[hex]

Explanation There was an error in handling the DHCP synchronization acknowledgement. In most of these cases, the ACK message is ignored.

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

Error Message DHCP_SNOOPING-4-STANDBY_AGENT_OPERATION_FAILED: DHCP snooping binding transfer failed on the Standby Supervisor. [char]

Explanation If the DHCP snooping database supporting SSO is configured as a local device, both supervisor engines will update their database whenever there is an update regarding bindings. This error message is an indication that a snooping database update on the standby supervisor engine failed in the manner mentioned. The most likely cause for these problems is if the snooping database is configured as a slot0 device, but functioning compact flash memory is only present on the active supervisor engine's slot0 while the standby supervisor engine's slot0 is empty or faulty. Possible variations in output include:

“URL not available for use.”

“Not enough memory available for creating agent.”

“Number of agents reached maximum supported limit.”

“Unable to create agent.”
 “Unable to access URL.”
 “Unable to start agent.”
 “Abort timer expiry.”
 “Number of entries exceeded max supported limit.”
 “Unable to transfer bindings. Memory allocation failure.”
 “Error reading the remote database.”
 “Error writing to remote database.”
 “Expected more data on read.”
 “Type string invalid.”
 “Version string invalid.”
 “New line expected in database.”
 “\‘TYPE\’ not found in remote database.”
 “\‘VERSION\’ not found in remote database.”
 “\‘BEGIN \’ not found in remote database.”
 “\‘END\’ not found in remote database.”
 “Type string not found in remote database.”
 “Version string not found in remote database.”
 “Checksum failed on an entry in remote database.”
 “No failure recorded.”

Recommended Action The switch will continue to function if no action is taken, but the redundancy features will be compromised until both active and standby supervisor engines have working flash memory available. Replace or insert flash memory into the supervisor engine that lacks it if needed.

DHCP_SNOOPING-5

Error Message DHCP_SNOOPING-6-AGENT_OPERATION_SUCCEEDED: DHCP snooping database [char] succeeded.

Explanation DHCP snooping has successfully read from or written to the database.

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

Error Message DHCP_SNOOPING-5-DHCP_SNOOPING_FAKE_INTERFACE: [char] drop message with mismatched source interface the binding is not updated message type: [char] MAC sa: [mac-addr]

Explanation The DHCP snooping feature has detected a host trying to carry out a denial of service attack on another host in the network. The packet will be dropped.

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

Error Message DHCP_SNOOPING-5-DHCP_SNOOPING_MATCH_MAC_FAIL: [char] drop message because the chaddr doesn't match source mac message type: [char] chaddr: [mac-addr] MAC sa: [mac-addr]

Explanation The DHCP snooping feature attempted MAC address validation and the check failed. There may be a malicious host trying to carry out a denial of service attack on the DHCP server. The packet will be dropped.

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

Error Message DHCP_SNOOPING-5-DHCP_SNOOPING_NONZERO_GIADDR: [char] drop message with non-zero giaddr or option82 value on untrusted port message type: [char] MAC sa: [mac-addr]

Explanation The DHCP snooping feature discovered a DHCP packet with option values not allowed on the untrusted port, indicating some host may be trying to act as a DHCP relay or server. The packet will be dropped.

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

Error Message DHCP_SNOOPING-5-DHCP_SNOOPING_UNTRUSTED_PORT: [char] drop message on untrusted port message type: [char] MAC sa: [mac-addr]

Explanation The DHCP snooping feature discovered certain types of DHCP messages not allowed on the untrusted interface, indicating some host may be trying to act as a DHCP server. The packet will be dropped.

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

DHCP_SNOOPING-6

Error Message DHCP_SNOOPING-6-AGENT_OPERATION_SUCCEEDED: DHCP snooping database [char] succeeded.

Explanation DHCP snooping has successfully read or written to the database.

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

Error Message DHCP_SNOOPING-6-BINDING_COLLISION: Binding collision. [dec] bindings ignored

Explanation One or more bindings from the database file has a MAC address and VLAN combination for which the switch already holds DHCP snooping bindings.

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

Error Message DHCP_SNOOPING-6-INTERFACE_NOT_VALID: Interface not valid. [dec] bindings ignored.

Explanation The interface that is listed in the database file's binding is not available, that the interface is a router port, or that the interface is a DHCP snooping-trusted Layer 2 interface.

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

Error Message DHCP_SNOOPING-6-LEASE_EXPIRED: Lease Expired. [dec] bindings ignored.

Explanation The DHCP lease expired for the given number of bindings from the database file.

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

Error Message DHCP_SNOOPING-6-PARSE_FAILURE: Parsing failed for [dec] bindings.

Explanation The database read operation failed for the stated number of bindings.

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

Error Message DHCP_SNOOPING-6-VLAN_NOT_SUPPORTED: Vlan not supported. [dec] bindings ignored.

Explanation The VLAN is not supported by DHCP snooping.

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

DOT1X (802.1X) Messages

This section contains the IEEE 802.1X-related (DOT1X) port-based authentication messages.

DOT1X-4

Error Message DOT1X-4-MEM_UNAVAIL:Memory was not available to perform the 802.1X action

Explanation Due to a lack of memory 802.1X cannot perform authentication, so it will not be enabled.

Recommended Action Reduce other system activity to ease memory demands. Install more memory, if necessary.

Error Message DOT1X-4-PROC_START_ERR: DOT1X unable to start

Explanation For unknown reasons 802.1X cannot start.

Recommended Action Restart 802.1X by entering the **dot1x system-auth-control** command 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 802.1X cannot operate.

Recommended Action Reload the device.

DOT1X-5

Error Message DOT1X-5-INVALID_INPUT: Dot1x Interface parameter is Invalid on interface [char]

Explanation The parameter that is specified for the 802.1X 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 the valid 802.1X parameters.

Error Message DOT1X-5-INVALID_MAC: Invalid MAC address (drop, zero, broadcast or multicast mac address) <mac address> is trying to authenticate."

Explanation Authentication is allowed for an invalid source MAC address because it is nonzero, it is not a broadcast, and it is not a multicast MAC address.

Recommended Action Connect an 802.1X-supported host to the 802.1X-enabled interface.

Error Message DOT1X-5-SECURITY_VIOLATION: Security violation on the interface [char], new MAC address [addr] is seen.

Explanation A host on the specified interface is attempting to gain access into the network or is trying to authenticate in a host mode that does not support the number of hosts attached. This is treated as a security violation and the port has been error-disabled.

Recommended Action Ensure that the port is configured to use the number of hosts attached. Enter the **shutdown** command followed by the **no shutdown** command 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 necessary, 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 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, isl--on,dot1q) on <mod/port>

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 only. 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 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 only. No action is required.

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

Explanation Interface [dec] / [chars] is trunked. [dec] / [chars] is the module number/interface range.

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

Error Message DTP-5-DOMAINMISMATCH: Unable to perform trunk negotiation on port [char] because of VTP domain mismatch.

Explanation The two ports involved in trunk negotiation belong to different VTP domains. Trunking is possible only when the ports involved belong to the same VTP domain.

Recommended Action Reconfigure the switch to ensure that the two ports that are involved in trunk negotiation belong to the same VTP domain.

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 that is 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-CANTALLOCATEHOSTCHECKPOINTMESSAGE: Cannot allocate memory for host checkpoint message. Layer2 host redundancy on standby will be out-of-sync with active.

Explanation There is insufficient memory to allocate space for this internal data structure.

Recommended Action You may need to install additional memory in both supervisor engines.

Error Message C4K_EBM-3-CANTALLOCATEIGMPGROUPEXTRY:No igmp group memory to add new group entry for addr [mac-addr]

Explanation This error occurs if you have created a large number of IGMP groups and there is insufficient memory to support additional Internet Group Management Protocol (IGMP) group entries.

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 There is insufficient memory for this internal data structure.

Recommended Action Install additional memory.

Error Message C4K_EBM-3-CANTALLOCATEVLANGROUPEXTRY:No vlan group table memory to add entry for addr %ea

Explanation There is insufficient memory 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 There is insufficient memory 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. Typically, a host is supposed to be learned on only one port. A spanning tree loop is the most common cause of this condition. All traffic from the specified host is temporarily dropped. After 15 seconds, forwarding is reenabled. If the problem persists, the traffic from the problem host continues to be dropped indefinitely.

Recommended Action Make sure that spanning tree is enabled to prevent spanning tree loops. If you have spanning tree disabled, make sure that you have no spanning tree loops in your network.

Error Message C4K_EBM-4-MAXHOSTCHKPTMESSAGEQSIZEEXCEEDED: Backlog of checkpoint message waiting to be synced to standby has exceeded pre-defined limits. The host table may become out-of-sync with active.

Explanation The active supervisor engine is overloaded and unable to synchronize host messages to the standby supervisor engine or the standby supervisor engine is not in the proper state.

Recommended Action Examine syslog messages from the active supervisor engine and standby supervisor engine to determine if any errors have been reported.

Error Message C4K_EBM-4-ZEROETHERADDR:Filtering Ethernet MAC address of value zero from agent host table interface (port: [char])

Explanation The switch received a packet with the MAC address 00:00:00:00:00:00. This MAC address is not valid 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 that have all zeros (00:00:00:00:00:00), because a MAC address that has all zeros can not be listed in the learned host table. A request to show learned hosts, either by the **show cam dynamic** command or by an SNMP request, does not list a MAC address that has all zeros.

Recommended Action Track the source of the invalid MAC address because it might cause other problems.

EC 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 EtherChannel cannot obtain the memory it needs.

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

EC-5

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

Explanation The interface has joined the bundle.

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

Error Message EC-5-CANNOT_BUNDLE_QOS1: Removed [char] from port channel as QoS attributes of port and port-channel are different.

Explanation The Port specified in the error message cannot join port channel, because the QoS attributes of this port are not consistent with the QoS attributes of the port-channel.

Recommended Action Match the QoS attributes of the specified port to the QoS attributes of other member ports in the port channel. Use the **show queuing interface** command to display the QoS attributes of a port.

Error Message EC-5-MINLINKS_MET: Port-channel [char] is up as its bundled ports ([dec]) meets min-links

Explanation The administrative configuration of minimum links is equal or less than the number of bundled ports. Therefore this port channel has been brought up.

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

Error Message EC-5-MINLINKS_NOTMET: Port-channel [char] is down bundled ports ([dec]) doesn't meet min-links

Explanation The administrative configuration of minimum links is greater than the number of bundled ports. Therefore this port channel has been brought down.

Recommended Action Reduce the min-links configuration for this group or add more ports to this port-channel to create a bundle.

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 down

Explanation The administrative state of the aggregation port channel is down. The port remains in a standalone state until the state of the aggregation port is up.

Recommended Action Ensure that all of the ports in the bundle have the same configuration.

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 This port has different port attributes than other ports within the port channel.

Recommended Action Match the port attributes to that of the 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 that is specified in the error message cannot join a port channel because the QoS policy that is 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-COMPATIBLE: [char] is compatible with port-channel members

Explanation The specified interface is not operational because its attributes are different from the attributes of the port channel or the attributes of the interfaces within the port channel. The switch detects that the attributes of the specified port now match the port-channel attributes.

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

Error Message EC-5-DONTBNL: [char] suspended: incompatible remote port with [char]

Explanation The configuration of the remote port is different from the configuration of the other ports in the bundle. A port can join the bundle only when the global configuration of the port and the configuration of the remote port are the same as the other ports in the bundle.

Recommended Action Ensure that the configuration of the remote ports is the same for all ports in the bundle.

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 cannot 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 cannot 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 cannot be unselected for the specified protocol because it is already part of a channel.

Recommended Action Remove the interface from the channel group.

Error Message EC-5-L3DONTBNL1:[char] suspended: PAgP not enabled on the remote port.

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

Recommended Action Enable PAgP on the remote side.

Error Message EC-5-L3DONTBNL2: [char] suspended: LACP currently not enabled on the remote port.

Explanation LACP is enabled on a Layer 3 interface, but the remote port does not have LACP enabled. In this mode, the port is put in a suspended state.

Recommended Action Enable LACP on the remote side.

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 Obtain an image that includes PAgP, or set the mode to ON.

Error Message EC-5-PORTDOWN: Shutting down [char] as its port-channel is admin-down

Explanation The administrative state of the aggregate port is down, which forces the administrative state of the port to also be down. The administrative state of the port is controlled by the administrative state of its aggregate port.

Recommended Action Enter the **no shutdown** command on the aggregate port to activate the aggregation port.

Error Message EC-5-STAYDOWN: [char] will remain down as its port-channel [char] is admin-down

Explanation An interface with EtherChannel configuration cannot be administratively up if its port channel is administratively down. Although this interface has an EtherChannel configuration, it has no information about the port channel. The **no shutdown** command is not supported.

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 only. 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.

FLASH Messages

This section contains the Flash memory (C4K_FLASH) messages.

Error Message C4K_FLASH-4-COMPACTFLASHNOTFOUND: Cannot find compact flash

Explanation You may see this message if the compact flash is not inserted properly or if it is removed while the switch is trying to access the flash.

Recommended Action Reinsert the compact flash and retry the operation.

Error Message C4K_FLASH-4-COMPACTFLASHNOTREADY: Compact flash is not ready

Explanation You may see this message if the compact flash is not inserted properly or if it is removed while the switch is trying to access the flash.

Recommended Action Reinsert the compact flash and retry the operation.

GLM Messages

This section contains the TwinGig converter messages.

Error Message C4K_GLMMAN-3-TWINGIGCONVERTERBADSEEPROM: Port [char]: TwinGig Converter's seeprom is bad, try reinserting: vendor: [char], p/n: [char], s/n: [char]

Explanation A TwinGig Converter has been detected, and the read of its serial EEPROM succeeded, but the contents are invalid (possibly a bad checksum). This could happen because the TwinGig Converter is not seated correctly. The message tells the vendor, part number and serial number read from the Converter's serial EEPROM.

Recommended Action Try removing and reinserting the TwinGig Converter. If this message still appears after that, try the Converter in another port, to verify that the Converter is bad, and not the port. If the Converter fails in another port, return the Converter. If the Converter succeeds in other ports, it implies that the original port is bad, not the Converter, and the module needs to be returned. As a further test of the original port, other TwinGig Converters could be tried. If these other TwinGig Converters also fail in that port, it is very likely that the port is bad.

Error Message C4K_GLMMAN-3-TWINGIGCONVERTERCRCINTEGRITYCHECKFAILED: Port [char]: TwinGig Converter integrity check failed: bad crc

Explanation Only Cisco-qualified TwinGig Converters are supported. Others show as unsupported and cause the associated port to be placed in faulty status. The CRC of the TwinGig Converter's SEEPROM is invalid.

Recommended Action Verify that the TwinGig Converter is from a Cisco-qualified source. If it is, try reinserting it. If the message still appears after that, try it in another port, to verify the Converter is bad, and not the port. If it still produces error messages, replace the TwinGig Converter.

Error Message C4K_GLMAN-3-TWINGIGCONVERTERIDENTFAILED: Port [char]: Failed to identify TwinGig Converter

Explanation Something is inserted in the specified port, which has been configured to accept a TwinGig Converter, an adaptor which converts an X2 port into 2 SFP ports, but it has failed the identification process.

Recommended Action If the object inserted in the port isn't a TwinGig Converter, remove it. If it is a TwinGig Converter, try removing and reinserting it. If the message still appears after that, try it in another port, to verify the Converter is bad, and not the port. If the Converter fails in another port, return it.

Error Message C4K_GLMAN-3-TWINGIGCONVERTERINTEGRITYCHECKFAILED: Port [char]: TwinGig Converter integrity check failed: bad key

Explanation Only Cisco-qualified TwinGig Converters are supported. Others show as unsupported and cause the associated ports to be placed in faulty status.

Recommended Action Replace the TwinGig Converter with a Cisco-qualified one.

Error Message C4K_GLMAN-3-TWINGIGCONVERTERS2WERROR: Port [char]: S2w error while reading status of TwinGig Converter

Explanation Internal communication error when reading TwinGig Converter status data.

Recommended Action Remove and reinsert the TwinGig Converter. If that doesn't solve the problem, try using the **hw-module module port-group** command to change to ten gigabit mode and back to gigabit mode, to reset things.

Error Message C4K_GLMAN-3-TWINGIGCONVERTERSEEPROMREADFAILED: Port [char]: Failed to read serial eeprom of TwinGig Converter, try reinserting

Explanation A TwinGig Converter has been detected in the X2 port referred to in the message, but the read of its serial eeprom failed. Sometimes the read fails because the TwinGig Converter is not seated correctly.

Recommended Action Try removing and reinserting the TwinGig Converter. If this message still appears after that, try the Converter in another port, to verify that the Converter is bad, and not the port. If the Converter fails in another port, return the Converter. If the Converter succeeds in other ports, it implies that the original port is bad, not the Converter, and the module needs to be returned. As a further test of the original port, other TwinGig Converters could be tried. If these other TwinGig Converters also fail in that port, it is very likely that the port is bad.

Error Message C4K_GLMAN-3-X2INTWINGIGCONVERTERHOLE: X2 inserted in port [char], which is configured for a TwinGigConverter

Explanation An X2 transceiver has been inserted into an port which has been configured to accept a TwinGig Converter, an adaptor which converts an X2 port into 2 SFP ports. The X2 is a ten gigabit transceiver, and SFPs are gigabit transceivers.

Recommended Action Remove the X2, or reconfigure the port to ten gigabit, using the **hw-module module <m> port-group select tengigabitethernet** command.

Error Message C4K_GLMAN-4-TWINGIGCONVERTERUNSUPPORTED: Port [char]: TwinGig Converter is unsupported

Explanation The TwinGig Converter was identified as not a Cisco-qualified Converter.

Recommended Action If this TwinGig Converter was purchased from Cisco, please contact Cisco TAC to get it replaced.

Error Message C4K_GLMAN-7-TWINGIGCONVERTERINSERTED: Port [char]: TwinGig Converter inserted: vendor: [char], p/n: [char], s/n: [char]

Explanation A TwinGig Converter has been detected and its serial EEPROM read. The message shows the vendor, part number, and serial number from the TwinGig Converter's serial EEPROM.

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

Error Message C4K_GLMAN-7-TWINGIGCONVERTERREMOVED: Port [char]: TwinGig Converter removed

Explanation A TwinGig Converter has been removed from the specified X2 port.

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

HW Messages

This section contains the hardware (HW) messages.

Error Message C4K_HW-3-S2WERROR:[char] [char] [dec] Error: [object-info] Device Addr: [dec] Mem Addr: [object-info] Value: [dec]

Explanation An unexpected error occurred when the switch accessed the hardware device specified in the message.

Recommended Action Contact your technical support representative.

Error Message C4K_HW-3-X2IDENTIFICATIONFAILURE:Error while trying to identify serdes type for [char] ([dec]) X2 module

Explanation There was an error when trying to identify the X2 module type.

Recommended Action Contact your technical support representative. You will probably need to replace the supervisor engine.

Error Message C4K_HW-3-X2OUIREGREADFAILURE:Error while reading Supervisor X2 OUI register Device Addr: [dec]

Explanation There was an unexpected error when accessing a hardware device with the given device address.

Recommended Action Contact your technical support representative. You will probably need to replace the supervisor engine.

Error Message C4K_HW-3-X2LOOPBACKFAILURE: Failed to put [char] Xaui([dec]) [char] loopback

Explanation Software was unable to put the X2 in or out of loopback because it was unable to determine the X2 type.

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

HWACLMAN Messages

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

Error Message C4K_HWACLMAN-4-ACLHWPROGERR: [input/output] [char] - hardware TCAM limit, [char]

Explanation Some ACL-based features cannot be fully programmed into the hardware. Packets that use these features complete processing in the software. If the feature is a policy map, then QoS is completely disabled (on the specific interface).

This message lists the impacted feature; further messages list the specific failure that occurred.

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

Error Message C4K_HWACLMAN-4-ACLHWLABELERR: Path [obj] label allocation failure: [string] - packets will be handled in software, QoS is disabled.

Explanation A label pair could not be allocated for the specified path. This can happen because the label supply is exhausted, or because the profile supply is exhausted, or because the path requires the application of mutually-incompatible features. Packets that traverse this path will be processed in software.



Note If the path includes QoS, it will be disabled on the interface.

Recommended Action Simplify the configuration to reduce the number of labels and profiles required, or remove the conflicting features.

Error Message C4K_HWACLMAN-4-ACLHWPROGERRREASON: [input/output] [object-info] [char] - [char]

Explanation This message provides a specific failure that prevented ACL-based features from being fully programmed into the hardware.

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

Error Message C4K_HWACLMAN-4-CAMAUDIT: ACL/QoS CAM Health Check: [input/output] [char] Index: [dec] [char] (Cumulative Error Count: [dec])

Explanation The background system health monitor detected a potential problem.

Recommended Action If this is a software error, the system has already corrected itself automatically and no action is required. If this is a hardware error, power cycle the switch.

Error Message C4K_HWACLMAN-4-CAMBLOCKMASKALLOCFAILED: CAM state memory allocation failure in region [dec]

Explanation The software could not allocate memory to maintain a software copy of the hardware classification TCAM masks that are used for ACL and QoS functionality.

Recommended Action This condition should never occur. If you see this message, copy it exactly and contact your technical support representative.

Error Message C4K_HWACLMAN-4-CLASSIFCAMPARITYERROR: Parity error detected in [input/output] Classification CAM [char] Cell [object-info] and corrected

Explanation The system detected and fixed a parity error in the hardware. If you see this error repeatedly, there is a strong likelihood of a hardware fault and the supervisor engine will need to be replaced.

Recommended Action The software fixes the parity error by rewriting the CAM entries to the hardware. If the problem persists, contact your technical support representative.

Error Message C4K_HWACLMAN-4-CLASSIFCAMREPLYPARITYERROR: Parity error detected in lookup response from [input/output] Classification CAM, Response Contents: [char]

Explanation The system detected a transient error in the classification TCAM operation. If you see this message repeatedly, there is a strong likelihood of a fault in the switching engine ASICs and the supervisor engine will need to be replaced. Software will attempt to fix the parity error by rewriting the TCAM entries to the hardware.

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

Error Message C4K_HWACLMAN-4-CLASSIFCAMREQPARITYERROR: Parity error detected in lookup request to [input/output] Classification CAM, Data [char] Address [char]

Explanation The system detected a transient error in the Classification TCAM operation. If you see this error repeatedly, there is a strong likelihood of a fault in the switching engine ASICs and the supervisor engine will need to be replaced.

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

Error Message C4K_HWACLMAN-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 transient error. The ACL that we were trying to program will not become active. (The software and hardware path counts are provided for use by engineers in troubleshooting.)

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

Error Message C4K_HWACLMAN-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 we were trying to program will not become active. (The software and hardware path counts are provided for use by engineers in troubleshooting.)

Recommended Action Detaching and attaching ACLs (and policies) may solve the problem.

Error Message C4K_HWACLMAN-4-QOSFEATUREOUTOFWSOURCES: Out of memory. [char] is inactive on port [char]

Explanation The software could not allocate memory to write the QoS related configuration to the QoS TCAM hardware. The given QoS policy configuration will not work on the given port until this is corrected.

Recommended Action This condition might occur under extreme ACL and/or QoS configurations. Some workarounds to attempt are:

- Try reducing the unwanted QoS and ACL configurations from ports and VLANs.

- Try disabling and re-enabling QoS via the **qos** global configuration command.
- If the problem persists, contact your technical support representative.

Error Message C4K_HWACLMAN-4-WARNINGSTRING: [char]

Explanation A nonspecific warning message was displayed.

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

HWL2MAN Messages

This section contains the Layer 2 Hardware Manager (HWL2MAN) messages.

Error Message C4K_HWL2MAN-3-STMPARITYERROR: Parity error in Spanning Tree Memory.

Explanation There is a parity error in the spanning tree memory, which can indicate a transient hardware problem or a more permanent problem.

Recommended Action If you see this message too often, reboot the switch.

Error Message C4K_HWL2MAN-3-BUSPARITYERROR: L2 Bus Parity Error occurred for PLD Segment [dec]

Explanation There is an L2 bus parity error indicating some problem with the incoming packets. There may also be a transient hardware failure.

Recommended Action The system will reboot itself. Please contact Cisco Technical Assistance if you see this message repeatedly.

Error Message C4K_HWL2MAN-3-L2MEMPARITYERROR: L2 Memory Parity Error occurred at address 0x [object-info] [dec] with parity [object-info]

Explanation There is a L2 Memory Parity error at the specified address. This could indicate a transient hardware problem or a more permanent problem.

Recommended Action Please reboot the system. If the problem persists, please contact Cisco Technical Assistance.

HWNETFLOWMAN Messages

This section contains the NetFlow Manager (HWNETFLOWMAN) messages.

HWNETFLOWMAN-3

Error Message C4K_HWNETFLOWMAN-3-NETFLOWSTOPPED: Too many netflow parity errors encountered. It is very likely that this is bad Netflow hardware. Stopping all netflow related activities.

Explanation The supervisor engine received too many parity errors from the NetFlow Services Card. The supervisor engine stops all NetFlow-related activities after issuing this message.

Recommended Action Contact your technical support representative.

HWNETFLOWMAN-4

Error Message C4K_HWNETFLOWMAN-4-HARDWAREUNRESPONSIVE: Netflow Hardware too slow in responding to software requests

Explanation Software tried to access NetFlow hardware but there was no response. Typically this would indicate that the NetFlow related hardware may have gone bad.

Recommended Action Contact your technical support representative.

Error Message C4K_HWNETFLOWMAN-4-ERRORADDRS: Netflow Fatal Error Info: Interrupt Status ([dec]), FDT1 Err Addr ([dec]), FDT2 Err Addr ([dec]), FLD Err Addr ([dec])

Explanation A fatal NetFlow error occurred. The message contains critical information that can help you determine if the NetFlow hardware is functioning properly or is bad.

Recommended Action Contact your technical support representative.

Error Message C4K_HWNETFLOWMAN-4-FATALERRORINTERRUPTSEEN: Netflow Fatal Error interrupt seen

Explanation The NetFlow Services Card sent a fatal interrupt call to the supervisor engine, which can crash the service card, the supervisor engine, and the entire switch. This condition is extremely rare.

Recommended Action Contact your technical support representative.

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 are lost. This message informs users about the total collected flow statistics. If the counter that tracks the lost statistics overflowed, an accurate count of total lost flows is not available.

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

Error Message C4K_HWNETFLOWMAN-4-NOFREEFLOWPOLICERS:[dec] flow based policers are in use. All available flow policers are in use. Can't allocate more number of flow policers

Explanation The maximum number of flow policers that can be allocated by the system is 512. This message is displayed when the user tries to exceed that limit.

Recommended Action Free existing flow policers before trying to define new ones.

Error Message C4K_HWNETFLOWMAN-4-SWAGEDENTRYHWINVALIDATIONFAILED: Invalidation failed for Hw flow (index: [object-info]) associated with sw active-aged flow

Explanation Software tried to access NetFlow hardware, but there was no response. Typically this would indicate that the NetFlow related hardware may have gone bad.

Recommended Action Contact your technical support representative.

Error Message C4K_HWNETFLOWMAN-4-NONFATALPARITYERRORINTERRUPTSEEN: Netflow Non Fatal Parity Error interrupt seen ([dec] times)

Explanation The supervisor engine received a nonfatal parity error from the NetFlow Services Card. The system should be able to recover from this condition. If this condition reoccurs often, the NetFlow Services Card is probably bad.

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

Error Message C4K_HWNETFLOWMAN-4-SEDISABLEDAFTERDELAY: Se is Disabled After a Small Delay

Explanation Software tried to access NetFlow hardware but there was no response. Typically this would indicate that the NetFlow related hardware may have gone bad. Access to the hardware was disabled.

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

HWPORTMAN Messages

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

HWPORTMAN-3

Error Message C4K_HWPORTMAN-3-MISCONFIGUREDPORTSET: Portset mis-configured: [char]

Explanation A portset was configured to an illegal mode (not supported for that portset), or a speed setting on a superport is inconsistent with superport group mode.

Recommended Action Capture output for the **show module** and **show platform mapping port** commands, and contact technical support immediately.

Error Message C4K_HWPORTMAN-3-PHYPORTALLOCATION: Phyport allocation failed!!

Explanation Insufficient phyports are available for allocation to the superport from the phyport pool for the slot. This can occur due to fragmentation of the phyport ID space. The switching module in this slot will be unusable until the switch is rebooted.

Recommended Action Enter the **show tech-support** command and the **show platform software phy** command to gather data that may help identify the nature of the error. Reboot the switch. Enter the **show platform mapping port** command and the **show platform software phy** command. If the problem persists, contact your technical support representative. Provide them with the output you have collected.

Error Message C4K_HWPORTMAN-3-TXQUEALLOCFAILED: LocalPhyport [dec] [char]

Explanation A problem was encountered in allocation of transmit queue space to the queues of the port. If this happened in response to a policy configuration, the new policy does not take effect. If it happened with the insertion of a switching module, the module cannot be used to transmit traffic.

Recommended Action Capture output from the **show tech-support** command, the **show platform mapping port** command, the **show platform software phy** command and the **show platform software qm** command to gather data that may help identify the nature of the error. Reboot the switch. Repeat capturing output from these commands. If the problem persists, contact your technical support representative. Provide them with the output you have collected.

Error Message C4K_HWPORTMAN-3-TXQUEDRAINFAILURE: Failed to drain phyport transmit queues on pool [dec]

Explanation Transmit queues of ports on a switching module pool did not drain and queue space was not released. The pool may not map exactly to a slot. If this happened in response to a policy configuration, the new policy does not take effect. If it happened with the insertion of a switching module, the module cannot be used to transmit traffic.

Recommended Action Enter the **show tech-support** command and the **show platform software qm** command to gather data that may help identify the nature of the error. If the problem persists, contact your technical support representative.

HWPORTMAN-4

Error Message C4K_HWPORTMAN-4-PORTSETPLLLOCK: SuperportGroup %u PLL has not locked! status [hex]. Proceeding further ...

Explanation Insufficient phyports are available for allocation to the superport from the phyport pool for the slot. If it happened with the insertion of a switching module, the module cannot be used to receive and transmit traffic.

Recommended Action Enter the **show tech-support** command to gather data that may help identify the nature of the error. If the problem persists, contact your technical support representative.

Error Message C4K_HWPORTMAN-4-SUPERPORTRESETBYRXCONFIGWORD: [char] has been reset by the received autonegotiation word.

Recommended Action The port stayed connected during switchover, but the device on the other end of the link lost synchronization and restarted autonegotiation.

Recommended Action Investigate at the link partner side, the problem is probably on that end. If the problem persists, contact your technical support representative.

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 and traffic on a port is blocked or limited for reasons other than being "paused". You may see the blocked transmit queue message if the supervisor engine is not able to send packets to the switching module because it received a busy bit from the switching module. A hardware failure or a speed/duplex mismatch can cause this problem.

Recommended Action Configure both sides of the link to autonegotiate for speed and duplex. Issue the **shut/no shut** command to recover the port. If the problem persists, move the connected device to another port and see if the problem happens there. If neither of these solves the problem, issue the **hw-module reset** command in order to reboot the switch and reset the line card. You could also upgrade the Cisco IOS version to the 12.2(25)EWA2 or 12.2(25)SG releases.

Error Message C4K_HWPORTMAN-4-CHECKFORDUPLEXMISMATCHANDPAUSE: [char] Tx-Queue could be blocked due to duplex mismatch or receiving excessive pause frames

Explanation Please use the **show interface <name> count all** command to verify the excessive collisions and pause frame counters. Duplex mismatch problems can be fixed by configuring both ends of a link in auto-negotiate mode. It can also be fixed by turning off auto-negotiation on both ends of the link and ensuring that the duplex configuration on both ends is the same. Excessive pause frames are not expected under normal conditions. If they occur, investigate on the other end of the link to address the problem. After fixing the problem, the port's TxQueue status can be checked by using the **show platform hardware interface <name> tx** command. The results will indicate whether one or more TxQueue's on this port are still stuck or working properly.

Recommended Action If this message is seen when the duplex settings are correct, contact your technical support representative.

Error Message C4K_HWPORTMAN-4-GIGAPORTRESETBYRXCONFIGWORD: [char] has been reset by the received autonegotiation word.

Explanation The port stayed connected during switchover, but the device on the other end of the link lost synchronization and restarted autonegotiation.

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

HWPORTMAN-7

Error Message C4K_HWPORTMAN-7-DROPPORTSHUTDOWNSTATUS: DropPort based traffic Suppression [char] %llu

Explanation Indicates traffic suppression due to drop port threshold being exceeded in the VFE. Traffic is suppressed to help relieve drop port queue congestion. It may mean that the drop Q size was not set correctly.

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

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 the software because one or both of the EtherType and flow control/operation code is incorrect. For flow control packets, the expected EtherType is 0x8808, and the expected operation code is 1 (xoff).

Recommended Action If the devices that are connected to the switch can generate flow control and are configured for flow control, verify that the devices can generate well-formed flow control packets with valid EtherType and operation code fields.

Error Message

IDBMAN Messages

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

IDBMAN-3

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 is using an invalid aggregate port.

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

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

Explanation Software is reusing a deleted interface for a new aggregate port.

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

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

Explanation Software is using an invalid bandwidth for an aggregate port.

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

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

Explanation Software is using an invalid port number.

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

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

Explanation Software is using an invalid VLAN.

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

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

Explanation Software is using an interface that is not an aggregate port for aggregate port operations.

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

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

Explanation Software recognizes that the invalid port belongs to an aggregate port.

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

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

Explanation Each Layer 3 interface has a VLAN that is associated with it. This message appears when some other Layer 3 interface is using the VLAN associated with the 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 a software error, an interface's VLAN was set to a nonrequested value.

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

IDBMAN-4

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

Explanation Software has mistakenly removed an aggregate port with active ports.

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

Error Message IDBMAN-4-REMOVED_NONDEFAULT_CONFIG: Removed non default configuration for interfaces in slot [dec]

Explanation In SSO mode, the non-default configuration for any removed switching module is not synchronized to the standby supervisor engine during the bulk synchronization, and it is removed from the configuration to avoid a configuration mismatch between active and standby supervisor engines.

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

IDBMAN-6

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

Explanation The given VLAN was mapped to the specified interface.

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

IOSACLMAN Messages

This section contains the Catalyst 4500 series Cisco IOS ACL management (IOSACLMAN) messages.

Error Message C4K_IOSACLMAN-4-ACLTYPEMISMATCH: Acl RkiosSharedIos[char] was earlier attached as [char] Acl. Please unconfigure all its uses before using it as a [char] Acl

Explanation This message displays if you attach a named ACL as one type, 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, attach it to a router port, and then delete the ACL DefaultAcl by entering **no ip access-list extended DefaultAcl**. 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 used as an IP ACL before configuring a MAC ACL with the same name.

Error Message C4K_IOSACLMAN-4-VLANMAPOUTOFMEMORY: Could not add an entry to Vlan Map [char]. Out of memory

Explanation The system has insufficient memory to allocate a new entry for this VLAN map.

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

Error Message C4K_IOSACLMAN-4-IPV6FLAGSNOTSUPPORTED: IPv6 flag matching is not supported.

Explanation Matching on IPv6 flags is not supported. IPv6 flags will be ignored, as though they had not been configured.

Recommended Action Reconfigure ACLS to use supported match criteria.

IOSDIAGMAN Messages

This section contains the Catalyst 4500 series Cisco IOS Diagnostic Manager (IOSDIAGMAN) messages.

Error Message C4K_IOSDIAGMAN-4-CANNOTRUNTESTNOTPORTFAILEDBOOTUP: Cannot run the diag test as port failed bootup tests

Explanation The online diagnostic test requested cannot be run on this port because the port failed bootup tests.

Recommended Action Investigate why the bootup tests have failed on the port. The module or the port may be damaged.

Error Message C4K_IOSDIAGMAN-4-TESTNOTSUPPORTEDONMODULE: [char] is not supported on this module

Explanation The online diagnostic test requested is not supported on this module.

Recommended Action If the diagnostic test is required, consider upgrading to hardware that supports the test.

IOSDHCP SnoopMAN Messages

This section contains the Catalyst 4500 series Cisco IOS DHCP Snooping Manager (IOSDHCP SnoopMAN) messages.

Error Message C4K_IOSDHCP SnoopMAN-4-CANNOTADDNEWIPLIST: Cannot add new IP list for dhcp security on [char] and vlan [dec]

Explanation The switch attempted to add a new IP address to the list of permitted IP addresses but failed. The new addresses are not permitted.

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

Error Message C4K_IOSDHCP SnoopMAN-4-CANNOTENABLESECURITY: Cannot enable dhcp security on [char] and vlan [dec]

Explanation The switch failed to enable IP source guard on the interface and indicated VLAN. This error probably occurred because there might be too many interface-VLAN pairs that have the feature enabled.

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

IOSIGMPSNOOPMAN Messages

This section contains the Catalyst 4500 series Cisco IOS IGMP Snooping Manager (IOSIGMPSNOOPMAN) message.

Error Message C4K_IOSIGMPSNOOPMAN-3-NOSPACELEFT:No igmp group memory to add new group entry

Explanation There is insufficient memory to support additional IGMP group entries, which are added automatically when you run CGMP or IGMP.

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

IOSINTF Messages

This section contains the Catalyst 4500 series Cisco IOS interface operation (IOSINTF) messages.

IOSINTF-4

Error Message C4K_IOSINTF-4-DYNAMICPOLICYMEMOVERFLOW: Dynamic policy memory exhausted - [char] policy for host %i on port [char] not applied.

Explanation The memory allocated for dynamic host policies (dynamic ACLs and URL redirection) has been completely used. The policy for the host and interface specified is not fully applied by the platform. Traffic from the host on that interface may hit the default PACL instead.

Recommended Action Reduce either the number of hosts on the system with dynamic host policies or the size of the dynamic policies being applied.

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 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 reenabled.

Error Message C4K_IOSINTF-4-REFLEXIVEACLNOTSUPPORTED: Reflexive Acls are not supported. Ignoring the [char] entry.

Explanation The reflexive ACLs are not supported. ACEs with the **evaluate** and **reflect** keywords are ignored.

Recommended Action Do not configure ACEs with the **evaluate** or **reflect** keywords.

IOSINTF-5

Error Message C4K_IOSINTF-5-NOPRIMARYVLANASSOCIATION:Packet received on interface [char] in vlan [dec] without primary vlan association. [mac-addr] will not be secured.

Explanation The switch received a packet on a secondary VLAN which does not have a primary VLAN association. The switch will not secure a MAC address in this situation.

Recommended Action Associate this secondary VLAN with a valid primary VLAN.

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 that is configured on the interface. Assign the correct IP network, and enter the **no shutdown** command on this interface.

Error Message C4K_IOSINTF-5-NOTXVLAN:Router Port [char] has no internal vlan assigned to transmit packet

Explanation Occasionally during hot-swapping operations a previously queued packet is transmitted after the module in that slot was removed. Because the module no longer exists, the packets are dropped.

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

Error Message C4K_IOSINTF-5-OUTPACLDISABLEDUETORACL: Output PACL [char] is disabled on port [char]

Explanation If the port is configured for an SVI that has output RACL, then the output PACL on the port is disabled. Output RACL and output PACL are mutually exclusive, it is not possible to configure both simultaneously.

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

Error Message C4K_IOSINTF-5-OUTPACLDISABLEDUETOVACL: Output PACL [char] is disabled on port [char]

Explanation If the port is configured for a VLAN that has output RACL, then the output PACL on the port is disabled. Output RACL and output PACL are mutually exclusive, it is not possible to configure both simultaneously.

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

Error Message C4K_IOSINTF-5-STALEPHYPORT: Dropping packets to be transmitted out on port [char] (Linecard in Slot [dec] may have been removed)

Explanation During hot-swapping operations a previously queued packet may be transmitted after a switching module is removed. This indicates such packets are being dropped.

Recommended Action If this message appears without any hot swapping, please contact your technical support representative.

Error Message C4K_IOSINTF-5-RJ45ACTIVE: Slot= [dec] Port= [dec]: RJ45 connector has become active

Explanation A dual media port changed from using the SFP connector to using the RJ-45 connector.

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

Error Message C4K_IOSINTF-5-RJ45INACTIVE: Slot= [dec] Port= [dec]: RJ45 connector has become inactive

Explanation A dual media port changed from using the RJ-45 connector to the SFP connector.

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

Error Message C4K_IOSINTF-5-TRANSCEIVERINSERTED: Slot=[dec] Port=[dec]: Transceiver has been inserted

Explanation An approved vendor transceiver has been inserted.

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

Error Message C4K_IOSINTF-5-TRANSCEIVERREMOVED: Slot=[dec] Port=[dec]: Transceiver has been removed

Explanation An approved vendor transceiver has been removed.

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

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 Layer 3 protocols operate at the logical, not the physical, port level. Layer 3 protocol packets were sent on a physical port that is part of a bundle. This condition occurs if there is a misconfiguration; a physical port that is part of a Layer 3 port channel might have been assigned an IP address.

Recommended Action Verify that the physical interface in the Layer 3 port channel does not have an IP address that is assigned to it.

Error Message C4K_IOSINTF-5-TXPKTDROPONETHERCHANNEL:Dropping transmit packet out of interface [char]

Explanation A packet that should be transmitted out of a port channel was dropped during transitions in the port channel membership. This condition occurs when a packet is transmitted out of the aggregate port by higher layer protocols, but the software cannot find the specific state information or when physical ports transition into or out of the port channel membership.

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

IOSIPROUTEMAN Messages

This section contains the Catalyst 4500 series Cisco IOS IP Route Manager (IOSIPROUTEMAN) messages.

IOSIPROUTEMAN-3

Error Message C4K_IOSIPROUTEMAN-3-ADJMANNOMOREADJS:AdjMan:
hardware adjacency resources exhausted, performance may be degraded.

Explanation The hardware adjacency resources have been exhausted. The supervisor engine will forward packets to this adjacency in the software. This action will likely represent a significant performance degradation.

Recommended Action Reduce the number of adjacencies that are 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 The switch does not have sufficient memory to allocate space for this adjacency; the supervisor engine will forward it in the software instead.

Recommended Action Reconfigure the network so that there are fewer hosts that are directly adjacent to the Catalyst 4500 series switch, and then clear and reload all of the routes (or reboot) so that the adjacent hosts that were being sent to the software get reloaded.

Error Message C4K_IOSIPROUTEMAN-3-FIBCANTALLOCATEFIBENTRY:IOS IP Route Manager:No
memory available to allocate FIB Entry for [ip-addr]

Explanation The switch has insufficient memory to allocate space for the route that is associated with this network.

Recommended Action Contact your technical support representative because memory leaks might exist.

Error Message C4K_IOSIPROUTEMAN-3-PBRDOESNOTSUPPORTQOS: Route-map ' [char]100 ' 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 switch does not support QoS services that are implemented using PBR route maps. The PBR route map that is specified will be loaded, but references to QoS services will be ignored.

Recommended Action Use the QoS policy maps and class maps to configure this feature.

Error Message C4K_IOSIPROUTEMAN-3-VRFMANNOMOREVRFS: VrfMan: VPN routing forwarding resources exhausted.

Explanation The VPN routing forwarding resources have been exhausted.

Recommended Action Reduce the total number of VPNs in the switch.

Error Message C4K_IOSIPROUTEMAN-3-WCCPINVALIDMASKASSIGNMENTTABLE: Invalid mask assignment table received for WCCP service group [char]

Explanation The number of distinct masks in the new mask assignment table is more the maximum number supported for a service group on the switch. The new table is discarded. Since a valid mask assignment table is not available anymore, the service group cannot redirect traffic. All the traffic that was expected to be redirected is now routed normally.

Recommended Action Make sure that the cache engine is correctly configured to send a valid mask assignment table to the switch.

IOSIPROUTEMAN-4

Error Message C4K_IOSIPROUTEMAN-4-WCCPUNCHANGEDMASKASSIGNMENTTABLE: Mask assignment table update received but the table has not changed for WCCP service group [char]

Explanation The service group has received a new mask assignment table identical to the current table. This could be due to a misconfiguration on the content engine side. The table change indication will be ignored and the service group continues to use the current table for redirection.

Recommended Action Please check the configuration on the content engine side to make sure that this unnecessary update does not get sent. If the configuration looks correct and the content engine is not sending the same table repeatedly but you still see this message, please contact your technical support representative.

IOSL2MAN Messages

This section contains the Catalyst 4500 series Cisco IOS Layer 2 Manager (IOSL2MAN) message.

Error Message C4K_IOSL2MAN-3-VLANCREATIONERROR:Unable to create new vlan [dec]

Explanation The switch does not have sufficient memory to allocate new VLANs, so the new VLAN allocation failed.

Recommended Action Contact your technical support representative because memory leaks might exist.

IOSL3MAN Message

This section contains the Catalyst 4500 series Cisco IOS Layer 3 Manager (IOSL3MAN) message.

Error Message C4K_IOSL3MAN-3-ACLFEATURECREATIONERROR: Unable to create acl feature entries for interface [char]

Explanation The switch has run out of memory it uses for allocation of ACL feature entries, so new ACL feature entry allocation has failed.

Recommended Action Alter or remove configuration on the switch to reduce the number of ACLs and overall memory in use.

IOSMODPORTMAN Messages

This section contains the Catalyst 4500 series Cisco IOS module Port Manager (IOSMODPORTMAN) messages.

IOSMODPORTMAN-2

Error Message C4K_IOSMODPORTMAN-2-MODULESHUTDOWNTEMP: Module [dec] Sensor [char] temperature is at or over shutdown threshold - current temp: [dec]C, shutdown threshold: [dec]C

Explanation The module temperature is above the shutdown threshold. If some action is not taken immediately to cool down the module then the module will be shut down to prevent damage to hardware.

Recommended Action Try removing and reinserting the module. If the problem persists, replace the card.

Error Message C4K_IOSMODPORTMAN-2-SHUTDOWNTEMP: Chassis temperature is at or over shutdown threshold - current temp: [dec]C, shutdown threshold: [dec]C

Explanation Chassis temperature is above the shutdown threshold. If some action is not taken immediately to cool down the chassis then the system will be shut down to prevent damage to hardware.

Recommended Action Make sure the switch environment is in the appropriate temperature range, and that the fan tray is working properly. You may need to disable some modules or features temporarily until the cause of the temperature problem is found.

Error Message C4K_IOSMODPORTMAN-2-CRITICALTEMP: Chassis temperature is at or over critical threshold - current temp: [dec]C, critical threshold: [dec]C

Explanation Chassis temperature is above a critical threshold. If some action is not taken immediately to cool down the chassis then the system will be shut down to prevent damage to hardware.

Recommended Action Make sure the switch environment is in the appropriate temperature range, and that the fan tray is working properly. You may need to disable some modules or features temporarily until the cause of the temperature problem is found.

Error Message C4K_IOSMODPORTMAN-2-MODULECRITICALTEMP: Module [dec] Sensor [char] temperature is at or over critical threshold - current temp: [dec]C, critical threshold: [dec]C

Explanation Module temperature is above critical threshold. If some action is not taken immediately to cool down the module then the module will be shut down to prevent damage to hardware.

Recommended Action Try removing and reinserting the module. If the problem persists, replace the module.

Error Message C4K_IOSMODPORTMAN-2-MODULETEMPUNDERSHUTDOWN: Module [dec] Sensor [char] temperature is now under shutdown threshold but still very high - current temp: [dec]C, shutdown threshold: [dec]C

Explanation A module temperature has dropped to below shutdown threshold.

Recommended Action The module may still be above the critical threshold. Carefully inspect it to see what is wrong.

Error Message C4K_IOSMODPORTMAN-2-TEMPUNDERSHUTDOWN: Chassis temperature is now under shutdown threshold but still very high - current temp: [dec]C, shutdown threshold: [dec]C

Explanation The chassis temperature has dropped to below the shutdown threshold.

Recommended Action The chassis may still be above the critical threshold. Carefully inspect it to see what is wrong.

IOSMODPORTMAN-3

Error Message C4K_IOSMODPORTMAN-3-SSOMODULEREADYTIMEOUT: Internal event: timed out after [dec] iterations waiting for the slot [dec] to become ready.

Explanation There is an internal logic error. The state of this switching module's ports will not be synchronized to the standby supervisor engine.

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

Error Message C4K_IOSMODPORTMAN-3-SPANCONFIGOUTOFMEMORY: RkiosSpanMan: Out of memory. Unable to process information for RkiosSpanMan: ID. [dec]

Explanation The system ran out of memory.

Recommended Action Contact your technical support representative.

Error Message C4K_IOSMODPORTMAN-3-UNKNOWNPOWERSUPPLY: Unsupported Power Supply has been inserted in slot [dec]

Explanation An unsupported or unknown power supply was inserted.

Recommended Action Replace the power supply with a supported power supply.

IOSMODPORTMAN-4

Error Message C4K_IOSMODPORTMAN-4-CLOCKMODULEFAULTY: Clock module switched to [dec] reason [char] for more info use the cmd:'show environment status clock'

Explanation The clock module is faulty and may have to be replaced.

Recommended Action Contact your technical support representative to confirm that replacing the clock module is necessary.

Error Message C4K_IOSMODPORTMAN-4-INLINEPOWEROVERMAX:Inline power exceeds max threshold:Module status changed to 'Pwr Max'

Explanation The measured PoE usage is higher than the module's physical limit. This situation can be caused by misconfiguration or by one or more unauthorized appliances drawing more PoE than allocated. In installations with a 1400 W DC power supply, this warning can be a false positive. Refer to bug id CSCef49715.

Recommended Action Make sure that the right amount of PoE is allocated to each device. If the PoE allocation is correct, remove powered devices one at a time and see if the power usage decreases as expected. (You can use the **show power detail** command to see the PoE allocated to the module and the PoE used.) If the power usage decreases sharply when a device is disconnected, chances are that

this device is using more PoE than allocated. Avoiding using this device should solve your problem. If after disconnecting all the devices on the module, the PoE usage is still high, and the system does not use 1400 W DC power, contact your technical support representative.

Error Message C4K_IOSMODPORTMAN-4-INLINEPOWEROVERWARNING: Module [dec] inline power exceeds threshold: status changed to 'Pwr Over'

Explanation The measured PoE usage is higher than the module's physical limit. This situation can be caused by misconfiguration or by one or more unauthorized appliances drawing more PoE than allocated. In installations with a 1400 W DC power supply, this warning can be a false positive. Refer to bug id CSCef49715.

Recommended Action Make sure that the right amount of PoE is allocated to each device. If the PoE allocation is correct, remove powered devices one at a time and see if the power usage decreases as expected. (You can use the **show power detail** command to see the PoE allocated to the module and the PoE used.) If the power usage decreases sharply when a device is disconnected, chances are that this device is using more PoE than allocated. Avoiding using this device should solve your problem. If after disconnecting all the devices on the module, the PoE usage is still high, and the system does not use 1400 W DC power, contact your technical support representative.

Error Message C4K_IOSMODPORTMAN-4-MODULETEMPHIGH: Module [dec] Sensor [char] temperature is at or over threshold - CurrentTemp: [dec]C, Threshold: [dec]C

Explanation The module temperature is above its threshold. If the temperature goes above critical threshold, another message will be logged and the system will shut down to prevent damage to hardware.

Recommended Action Inspect the module and find out why it is heating up.

Error Message C4K_IOSMODPORTMAN-4-MODULETEMPUNDERCRITICAL: Module [dec] Sensor [char] temperature is now under critical threshold but still very high - current temp: [dec]C, critical threshold: [dec]C

Explanation This message is sent when a module temperature returns to below critical threshold.

Recommended Action This is an informational message only. No action is required. The module temperature may still suggest a problem with the module.

Error Message C4K_IOSMODPORTMAN-6-MODULETEMPOK: Module [dec] Sensor [char] temperature is now ok - CurrentTemp: [dec]C, Threshold: [dec]C

Explanation This message is sent when module temperature returns back to normal.

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

Error Message C4K_IOSMODPORTMAN-4-SSOMODULEOLDVERSION: Received stale acknowledgement for the linecard in slot [dec]: expected [dec], received [dec].

Explanation This is most probably the result of a linecard being rapidly removed and reinserted.

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

Error Message C4K_IOSMODPORTMAN-4-FANTRAYBAD:Fan tray has failed

Explanation The fan tray failed.

Recommended Action Replace the fan tray as soon as possible.

Error Message C4K_IOSMODPORTMAN-4-FANTRAYPARTIALFAILURE: A fan or thermistor/s in system fan tray have failed

Explanation This is a warning message indicating that one or more fans or thermal sensors in the system fan tray have failed.

Recommended Action Schedule a time to replace the fan tray soon. System performance should not be immediately affected.

Error Message C4K_IOSMODPORTMAN-4-FANTRAYREMOVED:Fan tray has been removed

Explanation The fan tray was removed.

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

Error Message C4K_IOSMODPORTMAN-4-FANTRAYGOOD:Fan tray is okay

Explanation The fan tray passed all tests and is operating normally.

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

Error Message C4K_IOSMODPORTMAN-4-INLINEPOWERSUPPLYBAD: Inline power from power supply [dec] has failed or been turned off

Explanation A PoE source from a power supply failed or was turned off. The hardware cannot make a distinction between the two cases.

Recommended Action Verify that the incoming power is good, and if it is replace the power supply as soon as possible.

Error Message C4K_IOSMODPORTMAN-4-NFLABSENT: Netflow Services Card absent or idprom invalid on [char] supervisor.

Explanation The recommended configuration for using the NetFlow Services Card is to have it installed on both the standby and active supervisor engines. Otherwise, during switchover, the system might lose its NetFlow capabilities.

Recommended Action Verify that the NetFlow Services Card is installed on both supervisor engines.

Error Message C4K_IOSMODPORTMAN-4-NFLIDPROMINVALID: Netflow Services Card has invalid idprom on [char] supervisor

Explanation The IDPROM on the NetFlow Services Card on the supervisor engine indicated in the message is invalid.

Recommended Action Contact your technical support representative.

Error Message C4K_IOSMODPORTMAN-4-NFLMISMATCH: Netflow Services Cards have mismatched [char]. ([dec] on [char] and [dec] on [char]).

Explanation The IDPROM attributes of the NetFlow Services Cards installed on the active and the standby supervisor engines do not match.

Recommended Action Verify that the NetFlow Services Card is correctly installed on both supervisor engines.

Error Message C4K_IOSMODPORTMAN-4-PEMBAD: Power Entry Module has failed

Explanation The external power supply source providing PoE power is bad.

Recommended Action Check the external power supply and replace it, if necessary. This message is most likely to occur in a system using a 1400 W DC power supply and an external power shelf providing DC current to the DC power supply.

Error Message C4K_IOSMODPORTMAN-4-POWERSUPPLYBAD:Power Supply [dec] has failed or been turned off

Explanation A power supply failed or was turned off. The hardware cannot make a distinction between the two cases.

Recommended Action Replace the power supply as soon as possible.

Error Message C4K_IOSMODPORTMAN-4-POWERSUPPLYFANBAD:Fan of power supply [dec] has failed

Explanation A power supply fan failed.

Recommended Action Replace the power supply as soon as possible.

Error Message C4K_IOSMODPORTMAN-4-POWERSUPPLYREMOVED: Power supply [dec] has been removed

Explanation The power supply was removed.

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

Error Message C4K_IOSMODPORTMAN-4-POWERSUPPLYOUTPUTDECREASED: Power supply [dec] output has decreased

Explanation The power supply output decreased. This could be due to switching it off, power failure, or some failure in the power supply.

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

Error Message C4K_IOSMODPORTMAN-4-TEMPHIGH: Chassis temperature is at or over threshold - CurrentTemp: [dec]C, Threshold: [dec]C

Explanation The chassis temperature is above the threshold. If the temperature goes above a critical threshold, another message is logged and the system shuts down to prevent damage to the hardware.

Recommended Action Inspect the chassis and environment to determine the cause of the rise in temperature. Cool the system.

Error Message C4K_IOSMODPORTMAN-4-TEMPUNDERCRITICAL: Chassis temperature is now under critical threshold but still very high - current temp: [object-info] C, critical threshold: [object-info] C

Explanation The chassis temperature is now below the critical threshold. The chassis is still operating above the normal temperature.

Recommended Action Inspect the chassis to determine the cause of the temperature problem. Cool the system.

IOSMODPORTMAN-6

Error Message C4K_IOSMODPORTMAN-6-CLOCKSWITCHOVER: Chassis Clock Module switched to Clock: [dec]

Explanation This indicates that the clock module switched over to another clock.

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

Error Message C4K_IOSMODPORTMAN-6-INLINEPOWERSUPPLYGOOD: Inline power from power supply [dec] is Ok

Explanation The PoE power supply just inserted in [dec] is functioning normally.

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

Error Message C4K_IOSMODPORTMAN-6-POWERSUPPLYOUTPUTINCREASED: Power supply [dec] output has increased

Explanation The indicated power supply output increased.

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

Error Message C4K_IOSMODPORTMAN-6-FANTRAYINSERTED: Fan tray has been inserted

Explanation The fan tray was inserted.

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

Error Message C4K_IOSMODPORTMAN-6-FANTRAYINSERTEDETAILED: Fan tray ([char] S/N: [char] Hw: [dec].[dec]) has been inserted

Explanation The fan tray was inserted.

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

Error Message C4K_IOSMODPORTMAN-6-INLINEPOWEROK: Inline power within limits: Module status changed to 'Ok'

Explanation The measured PoE is now below the configured value and the physical limit for the module.

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

Error Message C4K_IOSMODPORTMAN-6-MODULEINSERTED: Module [dec] is inserted

Explanation A module was inserted into slot [dec].

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

Error Message C4K_IOSMODPORTMAN-6-MODULEOFFLINE: Module [dec] is offline

Explanation The specified module is offline.

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

Error Message C4K_IOSMODPORTMAN-6-MODULEONLINE: Module [dec] ([char] S/N: [char] Hw: [dec].[dec]) is online

Explanation The specified module is online.

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

Error Message C4K_IOSMODPORTMAN-6-MODULEREMOVED: Module [dec] is removed

Explanation A module was removed from slot [dec].

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

Error Message C4K_IOSMODPORTMAN-6-PACKETMEMORYERRORPOWERCYCLE:Supervisor power cycled due to packet memory errors

Explanation This supervisor engine was power cycled to get rid of SRAM errors detected in the packet memory. It is expected that the transient SRAM errors in packet memory are cleared by a power cycle of a supervisor engine.

Recommended Action Contact your technical support representative.

Error Message C4K_IOSMODPORTMAN-6-PACKETMEMORYERRORSOFTRESET:Supervisor soft reset due to packet memory errors

Explanation This supervisor engine was reset because it encountered SRAM errors in the packet memory. It was soft reset either because it does not have self power cycle capability or the switch is operating in SSO mode.

Recommended Action Contact your technical support representative.

Error Message C4K_IOSMODPORTMAN-6-PEMGOOD: Power Entry Module has been restored to working condition

Explanation The external power supply source providing PoE is working correctly.

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

Error Message C4K_IOSMODPORTMAN-6-POWERSUPPLYFANGOOD:Fan of power supply [dec] is okay

Explanation A failed power supply was fixed.

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

Error Message C4K_IOSMODPORTMAN-6-POWERSUPPLYGOOD:Power supply [dec] is okay

Explanation A failed power supply was fixed.

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

Error Message C4K_IOSMODPORTMAN-6-POWERSUPPLYINSERTED:Power supply [dec] has been inserted

Explanation The specified power supply was inserted.

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

Error Message C4K_IOSMODPORTMAN-6-POWERSUPPLYINSERTEDDETAILED: Power supply [dec] ([char] S/N: [char] Hw: [dec].[dec]) has been inserted

Explanation A power supply was inserted.

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

Error Message C4K_IOSMODPORTMAN-6-TEMPOK: Chassis temperature is now ok - CurrentTemp: [dec]C, Threshold: [dec]C

Explanation The chassis temperature is now normal.

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

C4K_IOSREDUNDANCYMAN Messages

This section contains the Catalyst 4500 series Cisco IOS module Redundancy Manager (IOSREDUNDANCYMAN) messages.

Error Message C4K_IOSREDUNDANCYMAN-3-CHECKPOINTMESSAGESENDFAILURE:RkiosCheckpointMan:Message send failure (client:[char])

Explanation There was an internal error when allocating resources for the checkpoint facility.

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

Error Message C4K_IOSREDUNDANCYMAN-3-NEWCHECKPOINTCLIENTFAILED:RkiosCheckpointMan:Error adding new client (client:[char], error:[dec])

Explanation There was an internal error when allocating resources for the checkpoint facility.

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

Error Message C4K_IOSREDUNDANCYMAN-3-NEWCLIENTREGISTRATIONFAILED:RkiosRedundancyMan:Error adding new client (client:[char], error:[dec])

Explanation There was an internal error when allocating resources for the redundancy facility.

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

IOSSYS Message

This section contains the Catalyst 4500 series IOS system (IOSSYS) messages.

IOSSYS-3

Error Message C4K_IOSSYS-3-BLANKSTARTUPCONFIG: Blank or invalid startup-config

Explanation An empty or invalid startup-config file was found in the NVRAM. The switch is booting up with default settings.

Recommended Action Configure the switch and save the configuration to NVRAM as the startup file for the next reboot. If the problem persists, contact your technical support representative.

Error Message C4K_IOSSYS-3-SAVEPOSTRESULTFAILED: Failed to save POST results to [char]. [char].

Explanation The system cannot save the POST results to bootflash because the bootflash memory might be full.

Recommended Action Check if the bootflash memory is full. If the bootflash memory is full, delete the old POST results by entering the **delete \force post*** and the **squeeze bootflash:** commands.

IOSSYS-4

Error Message C4K_IOSSYS-4-BLANKPRIVATECONFIG: Blank or invalid private-config

Explanation An invalid private-config is found in the NVRAM, or the private-config was missing.

Recommended Action If this message comes up after a software upgrade, try saving the configuration again and reboot the switch. If the message goes away in the next boot, then it can be ignored. If this message displays each time that the switch is rebooted, contact your technical support representative.

IOSSYS-7

Error Message C4K_IOSSYS-7-INVALIDVALUE: [char] Type [dec] not handled returning a default of 0

Explanation This message is used by developers only and should not occur during customer operation.

Recommended Action Contact your technical support representative.

Error Message C4K_IOSSYS-7-SETENVERR: Failed to set environment variable: [char].

Explanation The system cannot write the specified environment variable because the bootflash memory or NVRAM has insufficient memory.

Recommended Action Clear the unnecessary environment variables by entering the **clear platform environment variable unsupported** command, and then reboot your switch.

IOSSYSMAN Messages

This section contains the Catalyst 4500 series Cisco IOS System Manager (IOSSYSMAN) messages.

IOSSYSMAN-0

Error Message C4K_IOSSYSMAN-0-FATALEERRORCRASH:Forced crash due to: [char]

Explanation The system is unusable due to software 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 Enter the **unset** command to shorten the name.

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 Contact your technical support representative, and 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. The variable name is too long (greater than 4096 bytes) for the available storage space.

Recommended Action Boot the system into ROMMON mode. At the ROMMON prompt, enter the **unset** command to change the environment variable name to a shorter name.

Error Message C4K_IOSSYSMAN-4-NOSPACEFORENVVAR: Env. variable [char] cannot be set: no space

Explanation The software writes certain configuration values to the NVRAM. The switch has insufficient memory to write an environment variable.

Recommended Action Boot the system into ROMMON mode. At the ROMMON prompt, enter the **unset** command to remove the unused environment variables to reclaim the space.

IPROUTEMAN Messages

This section contains the Catalyst 4500 series Cisco 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,” which is a process that is useful for protocols like Hot Standby Routing Protocol (HSRP). The system does not have sufficient memory to hold a secondary MAC address.

Recommended Action Boot the switch into ROMMON mode. At the ROMMON prompt, enter the **unset** command to remove the unused environment variables to reclaim the space.

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.

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

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.

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

Error Message C4K_IPROUTEMAN-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 a platform Forwarding Information Base (FIB) that does not exist.

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

Error Message C4K_IPROUTEMAN-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.

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

Error Message C4K_IPROUTEMAN-3-FIBENTRYNOSUCHADJTODELETE:FIB Entry:Couldn't delete adj [ip-addr] from FIB Entry [ip-addr], no such adj.

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

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

Error Message C4K_IPROUTEMAN-3-FIBENTRYTOOMANYADJ:FIBEntry: FIB Entry: Too many adjacencies on FIB Entry for [ip-addr], tried to add adj [ip-addr]

Explanation A request 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.

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

Error Message C4K_IPROUTEMAN-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).

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

Error Message C4K_IPROUTEMAN-3-FIBLOADBALANCEMANDUPLICATE: FIB: Attempt to create duplicate Load-balance entry for [object-info]

Explanation A request to add a duplicate load-balance entry was detected.

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

Error Message C4K_IPROUTEMAN-3-FIBLOADBALANCEMANNONEXISTENT: FIB: Attempt to delete non-existent Load-balance entry with [object-info]

Explanation A request was made to delete a non-existent load-balance entry.

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

Error Message C4K_IPROUTEMAN-3-NOMOREK2FIBADJS:K2FibUnicast:no more K2FibAdjs available, using punt adj instead for [ip-addr] route.

Explanation The hardware resources for adjacencies have been exhausted; switching will take place in the software instead. The switch performance might be degraded.

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

Error Message C4K_IPROUTEMAN-3-VRFMANDUPLICATEVRF: Tried to create a duplicate VRF for key [object-info]

Explanation A request was made to add a duplicate VRF.

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

Error Message C4K_IPROUTEMAN-3-VRFMANNONEXISTENTDELETION: Attempted to delete VRF with key [object-info] which does not exist

Explanation A request was made to delete a VRF that does not exist.

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

Error Message C4K_IPROUTEMAN-3-WCCPMALLOCFAILURE: WCCP service group [char] could not be setup for redirection due to memory allocation failure.

Explanation The service group cannot be set up for redirection in hardware because of failure to allocate memory. The traffic that is expected to be redirected by this service group will be routed normally. This condition might occur under extreme ACL, QoS, PBR, VRF, or other L2/L3 feature configurations.

Recommended Action Try removing the unused or unneeded configuration on the switch before attempting to configure the service group again. Please note that even though the service group configuration shows up in the CLI, it has failed to be set up in hardware. Therefore, the service group should be unconfigured before configuring it again. If the above does not help, please contact Cisco Technical Assistance for further troubleshooting and resolution of the problem.

IPROUTEMAN-4

Error Message C4K_IPROUTEMAN-4-MFIBMAXINTERFACESIZE: MFIB: Reached maximum number of MFIB interfaces available

Explanation There are no more MFIB interfaces available. The switch has allocated the maximum number of MFIB interfaces available in software.

Recommended Action Alter the configuration to eliminate unneeded MFIB interfaces.

Error Message C4K_IPROUTEMAN-4-CANTALLOCATEMFIBENTRY: FIB: No memory available to allocate MFIB Entry

Explanation The switch has insufficient memory to allocate space for the route that is associated with this network.

Recommended Action Install additional memory.

Error Message C4K_IPROUTEMAN-4-CANTALLOCATEFIBENTRY: FIB: No memory available to allocate FIB Entry

Explanation The switch has insufficient memory to allocate space for the route that is associated with this network.

Recommended Action Install additional memory.

Error Message C4K_IPROUTEMAN-4-VRFMANCANTALLOCATEVRF: No memory available to allocate VRF for key [object-info]

Explanation The switch has insufficient memory to allocate space for VRF.

Recommended Action Install additional memory.

L2MAN

This section contains the L2MAN messages.

Error Message C4K_L2MAN-6-INVALIDSOURCEADDRESSPACKET:Packet received with invalid source MAC address ([mac-addr]) on port [char] in vlan [dec]

Explanation A packet was received with an all zero or a multicast source address. The packet is treated as invalid and no learning is done. Excessive flow of such packets can waste CPU cycles. This message is rate-limited and is displayed only for the first such packet received on any interface or VLAN. Subsequent messages will display cumulative count of all such packets received in given interval on all interfaces.

Recommended Action Check the switch configuration file to find the source of these packets on the specified port and take corrective action to fix them at the source end. You can also enable port security on that interface to shutdown the port if the incoming rate of packets with invalid source mac address is too high by issuing the **switchport port-security limit rate invalid-source-mac <rate>** command.

L3HWFORWARDING Messages

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

L3HWFORWARDING-2

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 the software instead. The switch performance might be degraded.

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

L3HWFORWARDING-3

Error Message C4K_L3HWFORWARDING-3-FWDESELMANHARDWAREMISMATCH: Hardware FwdSelMan: WARNING: mismatch between hardware and software shadow state in the FwdSel Table. [char]

Explanation There is a discrepancy between the hardware and software FwdSel tables, this may result in misforwarded packets.

Recommended Action Please contact Cisco technical assistance if this message is ever seen.

Error Message C4K_L3HWFORWARDING-3-FTECONSISTENCYCHECKFAILED: FwdTableEntry Consistency Check Failed: index [dec]

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

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

Error Message C4K_L3HWFORWARDING-3-FLCMANRANOUTOFSHUFFLESTATE: Hardware L3 TCAM manager: ran out of shuffle state

Explanation Internal hardware manager data structures are corrupted. This may indicate a very serious problem.

Recommended Action Please contact Cisco technical assistance if this message is ever seen.

Error Message C4K_L3HWFORWARDING-3-FWDCAMCONSISTENCYCHECKFAILED: FwdCam Consistency Check Failed: index [dec]

Explanation There is a FwdCam consistency check failure. If this error occurs frequently, it could indicate faulty hardware.

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

Error Message C4K_L3HWFORWARDING-3-FWDMEMPARITYERROR: Parity error in Forwarding Memory

Explanation There is a parity error in forwarding memory. This error message could indicate a transient hardware problem or a more permanent problem.

Recommended Action If you see this message multiple times, reboot the switch.

Error Message C4K_L3HWFORWARDING-3-RPFVLANMAXEXCEEDED: Maximum number of RPF vlans exceeded in hardware for route [ip-addr]

Explanation This software release supports a maximum of 4 RPF vlans for hardware-based unicast RPF. Packets arriving on additional VLANs may be dropped incorrectly.

Recommended Action In order to ensure correct forwarding of packets, please reconfigure the switch so that no more than four VLANs are required.

Error Message C4K_L3HWFORWARDING-3-MASKTABLECONSISTENCYCHECKFAILED: MaskTable Consistency Check Failed: block [dec]

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

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

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 that is specified by [object-info].

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

Error Message C4K_L3HWFORWARDING-3-NOMOREK2FIBADJS:No hardware adjacency resource available for route [ip-addr]

Explanation The hardware adjacency table has insufficient memory to allocate the adjacency set for this route. Forwarding will take place in the software instead.

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

Error Message C4K_L3HWFORWARDING-3-PBRBLOCKFAILEDTOADDFLATACE:K2FibPbrBlock:failed to add FlatAce [object-info] to block [dec]

Explanation The policy-routing data structures are corrupted. This memory corruption will probably crash the switch soon.

Recommended Action Contact your technical support representative.

Error Message C4K_L3HWFORWARDING-3-PBRBLOCKFAILEDTODELETEFLATACE:K2FibPbrBlock: failed to remove FlatAce [object-info] from block [dec]

Explanation The policy-routing data structures are corrupted. This memory corruption will probably crash the switch soon.

Recommended Action Contact your technical support representative.

Error Message C4K_L3HWFORWARDING-3-PBRFLATTENINGFAILED: Software resource exhaustion trying to load route-map for interface [char] ([dec]), elapsed time is [object-info] us

Explanation The switch has insufficient memory to process the access list for a route map.

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

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 insufficient memory to program a new route map.

Recommended Action Remove unused portions of the configuration to free the needed memory.

Error Message C4K_L3HWFORWARDING-3-PBRPUNTINGPORT: Policy routing exceeded maximum TCAM usage, all IP unicast traffic on interface [char] will be switched in software.

Explanation The hardware policy-based routing forwarding engine has insufficient resources to handle the route map for the specified interface. All unicast IP traffic for that interface will be switched in the software instead.

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

Error Message C4K_L3HWFORWARDING-3-WCCPMALLOCFAILURE: WCCP service group [char] could not be setup for redirection due to memory allocation failure.

Explanation The service group cannot be setup for redirection in hardware because of failure to allocate memory. The traffic that is expected to be redirected by this service group will be routed normally. This condition might occur under extreme ACL, QoS, PBR, VRF, or other L2/L3 feature configurations.

Recommended Action Try removing the unused or unneeded configuration on the switch before attempting to configure the service group again. Please note that even though the service group configuration shows up in the CLI, it has failed to be set up in hardware. Therefore, the service group should be unconfigured before configuring it again. If the above does not help, please contact Cisco Technical Assistance for further troubleshooting and resolution of the problem.

L3HWFORWARDING-4

Error Message C4K_L3HWFORWARDING-4-FLOWCACHEOUTOFSPACEFORFLOWCACHEENTRY: K2FibFlowCache: insufficient space to store flow of type [object-info] with label [packet-info]

Explanation The software cannot load a flow cache entry into the hardware due to insufficient memory.

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

Error Message C4K_L3HWFORWARDING-4-TCAMFULL: FLC Tcam full, packets will be forwarded in software at reduced rate. Failure due to: [char]

Explanation Hardware forwarding resources are exhausted. Packets will be forwarded in software instead, and this will affect performance.

Recommended Action Please reconfigure the switch to use fewer routes and re-enable hardware forwarding with the **ip cef distributed** command.

Error Message C4K_L3HWFORWARDING-4-FWDCAMOUTOFSPACEFORVRFROUTINGTABLE: Insufficient TCAM resources to load VRF [char] routing table. Switching to software forwarding for this VRF.

Explanation The software could not load the VRF routing table into the TCAM because there were not enough hardware resources available for the operation. Traffic on this VRF will now be routed in software at reduced forwarding performance.

Recommended Action Reduce the Layer 3 forwarding hardware resource use, by reducing the number of routes loaded or by reducing the number of VLANs contained within the VRF. When the hardware requirements are reduced sufficiently, Cisco IOS software automatically reloads the VRF's routes into hardware. When this happens, the C4K_L3HWFORWARDING-6-SUCCEEDEDTOLOADVRFROUTINGTABLETOFWDCAM message appears.

Error Message C4K_L3HWFORWARDING-4-FWDCAMOUTOFSPACEFORWCCPREDIRECTION: WCCP Service Group [char] failed to setup one or more routed ports/SVI for redirection due to lack of TCAM entries.

Explanation One or more VLANs corresponding to L3 routed ports or SVI could not be set up for redirection because there is insufficient room for more TCAM entries. Ingress IPv4 traffic on these VLANs will be routed normally. When the hardware requirements have been reduced sufficiently, the switch will automatically enable redirection for those VLANs.

Recommended Action Reduce the layer 3 forwarding hardware resource utilization, either by reducing the number of routes loaded or by reducing the number of VLANs contained within this WCCP service group. If the redirection is not enabled even after freeing up memory from these actions, please contact Cisco technical assistance.

Error Message C4K_L3HWFORWARDING-4-UNICASTMANNOMOREADJGROUP: No hardware adjacency resource available for route [ip-addr]

Explanation There is insufficient space in the hardware adjacency table to allocate the adjacency set for this route. It will be forwarded in software instead.

Recommended Action No action is necessary to ensure correct forwarding, however performance may be degraded. To restore forwarding performance, please reconfigure the switch so that fewer adjacencies are required.

L3HWFORWARDING-6

Error Message L3HWFORWARDING-6-NOLONGERPBRPUNTINGPORT: Sufficient Policy Routing TCAM space has been found to handle PBR for interface [char] in hardware, no longer punting to software.

Explanation The hardware policy-based routing forwarding engine now has sufficient resources to handle the route map for the specified interface and can now do hardware forwarding of unicast IP traffic.

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

Error Message C4K_L3HWFORWARDING-6-SUCCEDEDEDTOLOADVRFROUTINGTABLETOFWDCAM: Successfully loaded VRF [char] routing table to TCAM. Switching to hardware forwarding for this VRF.

Explanation A VRF that was previously being routed by software is now fully reloaded and hardware forwarding has resumed. Refer to the C4K_L3HWFORWARDING-4-FWDCAMOUTOFSPACEFORVRFROUTINGTABLE message for more information.

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

LINECARD Messages

This section contains the module (LINECARD) messages.

Error Message C4K_LINECARD-3-CONFIGPROMDATAINVALID: Invalid configuration on module [dec]'s config prom.

Explanation The config PROM of the module referred to in the message holds invalid configuration data. The module cannot come up in this case, as the module must have a valid configuration to function.

Recommended Action The module referred to in the log message should be returned to Cisco.

Error Message C4K_LINECARD-3-CONFIGPROMREADFAILED: Failed to read module [dec]'s config prom, try reinserting module

Explanation Reading the config PROM of the module failed. This module cannot come up in this case, as the config PROM provides the configuration of the module. Sometimes the read fails because the module isn't inserted correctly in the slot. The read may also fail if the software is lacking resources required to read the PROM.

Recommended Action Try removing and reinserting the module. If that doesn't work, try resetting the switch. If the read still fails, this module needs to be returned.

Error Message C4K_LINECARD-3-NOTSUPPORTEDINPORTGROUP: [char] isn't a supported type for module [dec], port-group [dec]

Explanation The customer has tried to configure a port-group to a type of interface which isn't supported.

Recommended Action Configure a supported interface type for this module and port-group. The **show hw-module module port-group** command shows which interfaces are in this module and port-group.

LINECARDMGMTPROTOCOL Messages

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

Error Message C4K_LINECARDMGMTPROTOCOL-3-FAILEDTOSEND: EsmpDriver [char] - Failed to send ESMP requests due to [char].

Explanation This message indicates a failure in ESMP request generation for the reason given. This is probably due to high CPU utilization caused by a number of factors, and under these circumstances switching module communication protocol packets can not be transmitted.

Recommended Action If you see this message frequently, analyze the traffic going to the CPU and contact your technical support representative to debug the problem.

Error Message C4K_LINECARDMGMTPROTOCOL-4-INITIALTIMEOUTWARNING: [char] - management request timed out.

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

Recommended Action This is an informational message only. No action is required. If this message is seen frequently, refer to: http://www.cisco.com/en/US/products/hw/switches/ps663/products_tech_note09186a00801c9221.shtml

Error Message C4K_LINECARDMGMTPROTOCOL-4-ONGOINGTIMEOUTWARNING: [char] - consecutive management requests timed out.

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

Recommended Action Reinsert the module.

LOGGING REDIRECT Messages

This section contains the Logging Redirect ISSU messages.

Error Message LOGGING_REDIRECT_ISSU-2-GET_BUFFER: Logging Redirect ISSU client failed to get buffer for message. Error: [dec] ([char])

Explanation The Logging Redirect ISSU client failed to get buffer space for building a negotiation message. A negotiation message cannot be sent to the standby device. If a problem occurs with the ISSU session negotiation, the standby device cannot be brought up properly.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show logging** and **show checkpoint client** commands to gather data that may help identify the nature of the error. Research and attempt to resolve the error using the Output Interpreter at <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the

Bug Toolkit at <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require assistance, open a case with the Technical Assistance Center via the Internet at http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

Error Message LOGGING_REDIRECT_ISSU-2-INIT: Logging Redirect ISSU client initialization failed to [char]. Error: [dec] ([char])

Explanation The Logging Redirect ISSU client could not be initialized. This initialization failure must be addressed before in-service software upgrade or downgrade can be performed successfully. If you do not address this failure, there will be downtime during software upgrade or downgrade.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the Output Interpreter at <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the Bug Toolkit at <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require assistance, open a case with the Technical Assistance Center via the Internet http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

Error Message LOGGING_REDIRECT_ISSU-2-SEND_NEGO_FAILED: Logging Redirect ISSU client failed to send negotiation message. Error: [dec] ([char])

Explanation The Logging Redirect ISSU client failed to send a session negotiation message to the peer device. If a problem occurs with the ISSU session negotiation, the standby device cannot be brought up properly.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show logging** and **show checkpoint client** commands to gather data that may help identify the nature of the error. Research and attempt to resolve the error using the Output Interpreter <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the Bug Toolkit at <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require assistance, open a case with the Technical Assistance Center via the Internet at http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

Error Message LOGGING_REDIRECT_ISSU-2-SESSION_NEGO: Logging Redirect ISSU client encountered unexpected client nego_done. Error: [dec] ([char])

Explanation An ISSU-compliant client transitions through a series of internal states. The Logging Redirect ISSU client encountered a 'client negotiation done' state that was unexpected. If a problem occurs with the ISSU session negotiation, the standby device cannot be brought up properly.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show issu session <client_id>** and **show issu negotiated capability <session_id>** command to gather data that may help identify the nature of the error. Research and attempt to resolve the error using the Output Interpreter at <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the

Bug Toolkit at <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require assistance, open a case with the Technical Assistance Center via the Internet at http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

Error Message LOGGING_REDIRECT_ISSU-2-SESSION_REGISTRY: Logging Redirect ISSU client failed to register session information. Error: [dec] ([char])

Explanation The Logging Redirect ISSU client failed to register session information. If a problem occurs with the ISSU session registration, the standby device cannot be brought up properly.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show issu capability entries** *<client_id>* and **show issu session** *<client_id>* and **show issu negotiated capability** *<session_id>* commands to gather data that may help identify the nature of the error. Research and attempt to resolve the error using the Output Interpreter at <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the Bug Toolkit at <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require assistance, open a case with the Technical Assistance Center via the Internet at http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

Error Message LOGGING_REDIRECT_ISSU-3-INVALID_SESSION: Logging Redirect ISSU client does not have a valid registered session.

Explanation The Logging Redirect ISSU client does not have a valid registered session.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show issu capability entries** *<client_id>*, **show issu session** *<client_id>*, and **show issu negotiated capability** *<session_id>* commands to gather data that may help identify the nature of the error. Research and attempt to resolve the error using the Output Interpreter at <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the Bug Toolkit at <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require assistance, open a case with the Technical Assistance Center via the Internet http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

Error Message LOGGING_REDIRECT_ISSU-3-MSG_NOT_OK: Logging Redirect ISSU client Message Type [dec] is not compatible

Explanation The Logging Redirect ISSU client received an incompatible message from the peer device. The message cannot be processed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show issu message group** *<client_id>*, **show issu session** *<client_id>* and **show issu negotiated version** *<session_id>* commands to gather data that may help identify the nature of the error. Research and attempt to resolve the error using the Output Interpreter at <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the Bug Toolkit at <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require

assistance, open a case with the Technical Assistance Center via the Internet at http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

Error Message LOGGING_REDIRECT_ISSU-3-MSG_SIZE: Logging Redirect ISSU client failed to get the MTU for Message Type [dec] . Error: [dec] ([char])

Explanation The Logging Redirect ISSU client failed to calculate the MTU for the specified message. The Logging Redirect ISSU client is not able to send the message to the standby device.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show issu message group** *<client_id>*, **show issu session** *<client_id>* and **show issu negotiated version** *<session_id>* commands to gather data that may help identify the nature of the error. Research and attempt to resolve the error using the Output Interpreter at <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the Bug Toolkit at <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require assistance, open a case with the Technical Assistance Center via the Internet at http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

Error Message LOGGING_REDIRECT_ISSU-3-SESSION_UNREGISTRY: Logging Redirect ISSU client failed to unregister session information. Error: [dec] ([char])

Explanation The Logging Redirect ISSU client failed to unregister session information.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show issu session** *<client_id>* and **show issu negotiated capability** *<session_id>* commands to gather data that may help identify the nature of the error. Research and attempt to resolve the error using the Output Interpreter at <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the Bug Toolkit at <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require assistance, open a case with the Technical Assistance Center via the Internet at http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

Error Message LOGGING_REDIRECT_ISSU-3-TRANSFORM_FAIL: Logging Redirect ISSU client [char] transform failed for Message Type [dec] . Error: [dec] ([char])

Explanation The Logging Redirect ISSU client could not transform the specified message type. If the transmit transformation failed, the checkpoint message was not sent to the standby device. If the receive transformation failed, the checkpoint message was not applied on the standby device. In both cases, the Logging Redirect state between the active device and the standby device is not identical.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the **show issu session** *<client_id>* and **show issu negotiated version** *<session_id>* commands to gather data that may help identify the nature of the error. Research and attempt to resolve the error using the Output Interpreter at <https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>. Issue the **show tech-support** command to gather data that may help identify the nature of the error. Also perform a search of the

Bug Toolkit <http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl> . If you still require assistance, open a case with the Technical Assistance Center via the Internet at http://www.cisco.com/cgi-bin/front.x/case_tools/caseOpen.pl , or contact your Cisco technical support representative.

LPIPMAN Messages

This section contains the LAN Port IP (LPIP) dynamic host policies (LPIPMAN) messages.

Error Message C4K_LPIPMAN-4-OUTOFMEMORY: Memory for constructing ACLs is not available.

Explanation System memory is not available to set up LPIP dynamic host policies. LPIP host policies do not work if this log message appears.

Recommended Action To correct this problem either free some memory on the switch or upgrade the switch with additional RAM.

PKTPROCESSING Messages

This section contains the packet processing (PKTPROCESSING) messages.

PKTPROCESSING-3

Error Message C4K_PKTPROCESSING-3-EXCEPTIONEVENTPACKET: Packet Rx on Exception Event : EventCode [object-info] rxPort [char] rxVlan [dec] [l2-header]

Explanation An unexpected CPU event happened for the packet forwarded to the CPU. The packet was dropped and there should be no other impact.

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

Error Message C4K_PKTPROCESSING-3-INVALIDVLAN:Packet received on invalid Vlan from hardware. PortId [dec] [l2-header] Vlan [dec] TagType [object-info]

Explanation The hardware sent a packet to the CPU, but the receiving VLAN was incorrect. There is probably a hardware problem.

Recommended Action Contact your technical support representative.

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 the packets have been sent to multiple destinations. This event wastes memory, so new packet information cannot be allocated.

Recommended Action Contact your technical support representative.

Error Message C4K_PKTPROCESSING-3-OUTOFPACKETSTODRIVER: \`"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.

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

Error Message C4K_PKTPROCESSING-3-REPLICATEDINVALIDVLAN: Replicated packet received on Vlan 0, CRC32 is valid. PortId [dec] [l2-header] Vlan [dec] TagType [object-info] count [object-info]

Explanation A replicated packet was received on VLAN 0. The CRC32 packet is correct. If the count is high, there may be a hardware problem.

Recommended Action Contact your technical support representative.

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. The packet unexpectedly encountered output ACL processing.

Recommended Action Contact your technical support representative.

Error Message C4K_PKTPROCESSING-3-UNRECOGNIZEDEVENT:Packet received for an unimplemented event. CPU Support [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.

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

PKTPROCESSING-4

Error Message C4K_PKTPROCESSING-4-ERRORPACKET: [char]

Explanation This message indicates that the software is unable to process a packet so the packet has been forwarded to the CPU instead. Because this event is unexpected, the packet is then dropped. This error indicates that the packet cannot be handled by the TCAM hardware, so the most likely cause is a hardware failure in the supervisor engine.

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

Error Message C4K_PKTPROCESSING-4-UNKNOWNBRIDGEORROUTEREPLICATED: Unable to determine whether to route or bridge replicated software-processed packet with source mac [mac-addr] , destination mac [mac-addr] , source IP [ip-addr] , destination IP [ip-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 that are programmed in the hardware cannot handle processing directly (such as ACLs matching TCP flags), the supervisor engine sends the packets to the 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.

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

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 is insufficient memory to create a list of actions to perform on the packet. As a result, the packet was dropped.

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

Error Message C4K_PKTPROCESSING-4-INVALIDACLACTIONFORSPANPORT: Unable to determine the ACL action to take because we ran out of memory. Address: src [mac-addr] dst [mac-addr]

Explanation There is insufficient memory to create a list of actions to perform on the packet. As a result, the packet was dropped.

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

Error Message C4K_PKTPROCESSING-4-UNKNOWNBRIDGEORROUTE: Unable to determine whether to route or bridge software-processed packet with source mac [mac-addr] , destination mac [mac-addr] , source IP [ip-addr] , destination IP [ip-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 that are programmed in the hardware cannot handle processing directly (such as ACLs matching TCP flags), the supervisor engine sends the packets to the 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.

Recommended Action This is an informational message only. No action is required. If this message is seen repeatedly, contact Cisco technical support.

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 that are programmed in the hardware cannot handle processing directly (such as ACLs matching TCP flags), the supervisor engine sends the packets to software for processing. Without the ingress port identifier, the supervisor engine 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 recognize the ingress port from other information, the packet is dropped.

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

Error Message C4K_PKTPROCESSING-4-OUTOFPACKETFORNEWPACKET: [char]

Explanation Packets are probably queued in process queues waiting to be processed. New packets cannot be allocated by the Packet manager for its client until the queue is cleared.

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

PKTPROCESSING-5

Error Message C4K_PKTPROCESSING-5-NOTAPPLYINGACL:Not applying [input/output] Acl for packet [packet-info]

Explanation The software is unable to determine the correct ACL entry that is 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 the software could process it, the index is out of date.

Recommended Action This is an informational message 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 event can occur 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 is an informational message only. No action is required.

Error Message C4K_PKTPROCESSING-7-NOTVALIDTXINFOFORREPLICAPACKET: Not Valid TxInfo for Replicated Packet : EventCode [object-info] txPortId [dec] txVlanId [dec] [12-header]

Explanation A packet in the replicating pipeline does not have a valid associated VLAN or port. The packet was dropped, as some header information appears to be corrupted. This will not affect any feature or system performance.

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

PM Messages

This section contains the Port Manager (PM) messages.

PM-1

Error Message PM-1-INCONSISTENT_PORT_STATE: Inconsistent HW/SW port state for [char]. Please shut/no shut the interface

Explanation The hardware and software port state has become inconsistent.

Recommended Action Enter the **shutdown** command followed by the **no shutdown** command on the interface specified in the message.

PM-2

Error Message PM-2-LOW_SP_MEM: Switch process available memory is less than [dec] bytes

Explanation The switch has insufficient memory for processing. Too many Layer 2 VLANs might have been 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 cannot obtain sufficient memory for the specified PM operation. [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.

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

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 cannot be configured with the 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 the VMPS server should be different from the 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.

Recommended Action Reset the VLAN assignments to remove the conflict.

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.

Recommended Action Reset the VLAN assignments to remove the conflict.

Error Message PM-4-BAD_CARD_COOKIE:an invalid card cookie was detected

Explanation The Port Manager detected an invalid request.

Recommended Action Reset the VLAN assignments to remove the conflict.

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].

Recommended Action Reset the VLAN assignments to remove the conflict.

Error Message PM-4-BAD_COOKIE:[char] was detected

Explanation The Port Manager detected an invalid request.

Recommended Action Reset the VLAN assignments to remove the conflict.

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).

Recommended Action Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the cause of the error from the error message or from the **show tech-support** command display, copy the error message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

Error Message PM-4-BAD_PORT_COOKIE:an invalid port cookie was detected

Explanation The Port Manager detected an invalid request.

Recommended Action Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the cause of the error from the error message or from the **show tech-support** command display, copy the error message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

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 Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the cause of the error from the error message or from the **show tech-support** command display, copy the error message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

Error Message PM-4-BAD_VLAN_COOKIE:an invalid vlan cookie was detected

Explanation The Port Manager detected an invalid request.

Recommended Action Try a different VLAN on the device.

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].

Recommended Action Try a different VLAN on the device.

Error Message PM-4-ERR_DISABLE:[char] error detected on [char]

Explanation The Port Manager 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.

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

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.

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

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 because 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 might be used as an internal VLAN by other features.

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

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

Explanation The Port Manager was 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.

Recommended Action Try a different VLAN on the device.

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 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 that are 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 either configured or dynamic.

Recommended Action Reconfigure the host access entry 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 a maximum of 4500 per switch. This limit was exceeded.

Recommended Action Reduce the number of trunks and VLANs in the module (or switch) that is specified in the error message. Make sure that the overture port and VLAN port count is below the recommended limit.

Error Message PM-4-MPLS_MTU_EC_CFG: MPLS MTU size [dec] is not supported by one or more ports in channel [char].

Explanation The MPLS MTU size configured on the ethernet channel is larger than the maximum MTU size that can be supported by one or more ports in this channel. As a result, large packets can be dropped.

Recommended Action Reduce the MPLS MTU size, or remove these ports from the channel before increasing the MPLS MTU size.

Error Message PM-4-MPLS_MTU_PORT_CFG: MPLS MTU size [dec] is not supported by port [char].

Explanation The MPLS MTU size configured on the port is larger than the maximum MTU size that can be supported by this port. As a result, large packets can be dropped.

Recommended Action Reduce the MPLS MTU size.

Error Message PM-4-NO_SUBBLOCK:No PM subblock found for [char]

Explanation A Port Manager (PM) subblock was not found for this interface.

Recommended Action Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the cause of the error from the error message or from the **show tech-support** command display, copy the error message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

Error Message PM-4-PORT_BOUNCED: Port [char] was bounced by [char].

Explanation The Port Manager needed to perform a reactivation of a port in the link-down state during a switchover. A port is only reactivated when the port data structures lack consistency between the active and standby supervisor engines. The reactivation event returned the active ports in the link-down state to the link-up state.

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

Error Message PM-4-PORT_CONSISTENT:Port [char] consistency has been restored

Explanation The port manager on the standby supervisor engine discovered that the port state became consistent again.

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

Error Message PM-4-PORT_INCONSISTENT: Port [char] is inconsistent: IDB state [char] (set %TE ago)

Explanation The port manager on the standby supervisor engine discovered that the port state was inconsistent for more than one second. Inconsistent ports are reactivated on switchover (you will see the PORT_BOUNCED message).

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

Error Message PM-4-PVLAN_TYPE_CFG_ERR: Failed to set VLAN [dec] to a [char] VLAN

Explanation The platform failed to set the private VLAN type.

Recommended Action Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the cause of the error from the error message or from the **show tech-support** command display, copy the error message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

Error Message PM-4-TOO_MANY_APP:application '[char]' exceeded registration limit

Explanation The Port Manager detected an invalid request. [char] in the application.

Recommended Action Reconfigure the host access entry using the correct type.

Error Message PM-4-UNKNOWN_HOST_ACCESS: Invalid Host access value ([dec]) is received

Explanation A n invalid host access value was sent to the host access table.

Recommended Action Reconfigure the host access entry using the correct type.

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 the VMPS server is different from the voice VLAN.

PORTFANOUTASIC4X1000MAN 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 1000-Mb ports.

Error Message C4K_PORTFANOUTASIC4X1000MAN-4-DIAGSFAILED:[char] failed diagnostics

Explanation The module ASIC that is identified by [char] failed diagnostics.

Recommended Action Contact your technical support representative.

Error Message C4K_PORTFANOUTASIC4X1000MAN-4-FAILEDTOSENDLOOPBACKTRIES: [char] port [dec] failed to send packet in [dec] tries

Explanation The module ASIC [char] was unable to send a loopback packet on a module ASIC port for the [dec]th time. The switch has insufficient memory and will attempt to send a loopback packet only up to three times.

Recommended Action 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 condition is rare because the loopback is internal to the hardware.

Recommended Action Contact your technical support representative.

PORTFANOUTASIC8X1000HW Messages

This section contains the Port Fan-out ASIC 8x1000 Hardware (PORTFANOUTASIC8X1000HW) message. This ASIC takes a gigabit port and fans it out to eight 1000-Mb ports.

PORTFANOUTASIC8X1000HW-3

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.

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

Recommended Action Contact your technical support representative.

PORTFANOUTASIC8X1000HW-4

Error Message C4K_PORTFANOUTASIC8X1000MAN-4-DIAGSFAILED: [char] failed diagnostics

Explanation The module ASIC identified by [char] failed diagnostics.

Recommended Action Contact your technical support representative.

Error Message C4K_PORTFANOUTASIC8X1000MAN-4-FAILEDTOSENDLOOPBACKTRIES: [char] port [dec] failed to send packet in [dec] tries

Explanation The module ASIC [char] is unable to send a loopback packet on the module ASIC interface [dec] and this is the *decth* time that it has tried to send and failed. The switch attempts to send a loopback packet only up to three times. The switch is out of memory.

Recommended Action 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 interface [dec] and it came back on another interface [dec]. This condition is unexpected because the loopback is internal to the hardware.

Recommended Action Contact your technical support representative.

PORTFANOUTASIC8X1000HW-7

Error Message C4K_PORTFANOUTASIC8X1000MAN-7-LOSTPACKET: [char] port [dec] lost one or more packets, [dec] transmitted [dec] received

Explanation A loopback packet was lost during online diagnostics of the module ASIC [char].

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

PORTFANOUTASIC8X100MAN 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 100-Mb ports.

PORTFANOUTASIC8X100MAN-4

Error Message C4K_PORTFANOUTASIC8X100MAN-4-DIAGSFAILED: [char] failed diagnostics

Explanation The module ASIC that is identified by [char] failed diagnostics.

Recommended Action Contact your technical support representative.

Error Message C4K_PORTFANOUTASIC8X100MAN-4-FAILEDTOSENDLOOPBACKTRIES:[char] port [dec] failed to send packet in [dec] tries

Explanation The module ASIC [char] was unable to send a loopback packet on the module ASIC port [dec] for the *dect*h time. The switch has insufficient memory; it will attempt to send a loopback packet up to three times.

Recommended Action 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] and it came back on another interface [dec]. This condition is rare because the loopback is internal to the hardware.

Recommended Action 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.

QoS Messages

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.

QoS IOS Messages

This section contains the quality of service (QoS) IOS messages.

Error Message C4K_QOS_IOS-5-INSUFFICIENT_BW_REMAINING: Policy-map: [char]; with insufficient bandwidth for [dec] queues not having explicit bandwidth configuration.

Explanation Each active queue must be allocated at least 32 kbps bandwidth. However, there is not enough bandwidth remaining to allocate new queues corresponding to class of traffic. For example, a class of traffic that has only shape rate.

Recommended Action While accounting for the interface speed, modify configured bandwidth in the policy map such that in addition to the sum of configured bandwidth across all queuing classes, there is at least 32 kbps bandwidth for every queuing class that does not have bandwidth configured. Then try to re-attach the policy map.

Error Message C4K_QOS_IOS-5-INVALID_BANDWIDTH_PERCENT: Policy map: [char]; with bandwidth percent or bandwidth remaining percent action results in unsupported absolute bandwidth value.

Explanation The policy map was incorrectly configured. One or more of the bandwidth percent or bandwidth remaining percent values results in an absolute bandwidth value lower than the 32kbps minimum supported.

Recommended Action Considering the current interface speed, modify the configured bandwidth percent or bandwidth remaining percent values such that the resulting absolute bandwidth value is equal to or greater than the platform supported minimum bandwidth value and then try to re-attach the policy map.

Error Message C4K_QOS_IOS-5-INVALID_CUMULATIVE_BANDWIDTH: Policy-map: [char]; with sum of configured bandwidth exceeding interface speed.

Explanation A policy map was incorrectly configured. The sum of configured class bandwidth can not exceed current interface speed.

Recommended Action Modify policy-map such that cumulative bandwidth across queuing classes does not exceed current interface speed, and then try to re-attach the policy map.

Error Message C4K_QOS_IOS-5-INVALID_DEFAULT_CLASS_WITH_PRIORITY: Policy map: [char]; with strict priority queuing not supported for default class of traffic.

Explanation A policy-map with strict priority queuing action in class-default was configured, but this action is not supported in default class.

Recommended Action Remove the priority queuing action from the default class and try to re-attach the policy map.

Error Message C4K_QOS_IOS-5-INVALID_QUEUELIMIT: Policy-map: [char]; with non-multiple of 8 queue-limit value

Explanation The queue-limit value in a policy map must be multiple of 8. An invalid value was configured.

Recommended Action Modify queue-limit values in the policy-map to be multiple of 8, and then try to re-attach the policy map.

Error Message C4K_QOS_IOS-5-INVALID_REMAINING_BW_PERCENT: Policy-map: [char]; with bandwidth remaining percent is supported only with priority queuing.

Explanation The policy map was incorrectly configured. The remaining percentage of bandwidth is supported only when combined with priority queuing action in a policy map.

Recommended Action Modify the policy map to specify bandwidth using either bandwidth or bandwidth percent command instead and then try to re-attach the policy map.

Error Message C4K_QOS_IOS-5-INVALID_SHAPE_PERCENT: Policy map: [char]; with shape percent results in lower than supported absolute shape value.

Explanation The policy map was incorrectly configured. One or more of the configured shape percent values results in an absolute shape value lower than the 32kbps minimum supported on the platform.

Recommended Action Modify the configured shape percent values such that the resulting absolute shape value, considering the interface current speed, is equal to or greater than the 32kbps minimum shape value and then try to re-attach the policy map.

Error Message C4K_QOS_IOS-5-INVALID_SHAPE_RATE: Policy map: [char]; shape value is higher than interface speed.

Explanation The policy map was incorrectly configured. One or more of the configured shape values are higher than the current interface speed.

Recommended Action Modify the configured shape values to not exceed the current interface speed and then try to re-attach the policy map.

Error Message C4K_QOS_IOS-5-MORE_QUEUEING_CLASSES: Policy-map: [char]; can have only 7 non-default queuing classes.

Explanation The policy map was incorrectly configured. There can be up to 8 queuing classes in a policy map including the default class, which always has default queue. There can be up to 7 non-default queuing classes.

Recommended Action Modify the policy map to contain only 7 non-default queuing classes, and then try to re-attach the policy-map.

Error Message C4K_QOS_IOS-5-MORE_THAN_ONE_PRIORITY_QUEUE: Policy-map: [char]; with more than one priority queue.

Explanation The policy map was incorrectly configured. A policy-map can have only one priority queuing action.

Recommended Action Modify the policy-map such that it contains at most one priority queuing class and then try to re-attach the policy map.

Error Message C4K_QOS_IOS-5-QUEUING_NOT_ALLOWED: Policy map: [char]; with queuing action can not be attached to a [char].

Explanation The policy map was incorrectly configured. A policy map with queuing actions can not be attached to a VLAN target as the transmit queues are supported on the port level only but not on a VLAN or port-channel level.

Recommended Action Remove the queuing actions from the policy map and try to re-attach the service policy.

QoS Manager Messages

This section contains the quality of service (QoS) manager messages.

Error Message C4K_HWQOSMAN-4-OUTOFMEMORYORPOLICERRESOURCES: Out of memory or policer resources

Explanation Software failed to allocate memory for a policer while processing the QoS configuration. This could be because either the policer configuration exceeded its maximum supported limit or current IOS memory utilization is high.

Recommended Action Remove policers from unwanted policies and retry the operation.

Error Message C4K_HWQOSMAN-4-OUTOFPOLICERTYPE: Out of memory or policer resources of type [char]

Explanation Software failed to allocate single or dual rate policer either due to reaching the hardware limitation or the current usage of hardware policer resources prevents the allocation of dual rate policers. IOS memory utilization is also one of the causes of this failure.

Recommended Action Remove policers from unwanted policies and retry the operation.

Error Message C4K_HWQOSMAN-4-POLICERLARGEBURSTVALUE: Policer burst value of [dec] bytes for a policer rate of [dec] bps is not supported. Rounding the burst to value of [dec] bytes

Explanation The user specified burst value for a given policing rate is too high to be supported in hardware. The burst value will be rounded to the maximum supportable value for a given policer rate. The policer will continue to work at the burst value specified in the log message instead of the configured user rate.

Recommended Action As the configured burst value can't be supported, lower the burst value specified in the IOS policer configuration. If this action is not performed there will be a discrepancy between the configured policer rate and the applied policer rate.

REDUNDANCY Messages

This section contains the supervisor engine redundancy (REDUNDANCY) messages.

REDUNDANCY-1

Error Message C4K_REDUNDANCY-1-VTP_CONFIG_DISLOCATE: VTP config file must be in default location for the system to work in SSO mode

Explanation The system failed to reach SSO mode because the VTP configuration file is not in the default location. In a catalyst 4500 switch, the default VTP configuration file is cat4000_flash:vlan.dat.

Recommended Action Reset the standby supervisor and remove the VTP filename configuration by using the **no vtp file** command.

REDUNDANCY-2

Error Message C4K_REDUNDANCY-2-HANDSHAKE_TIMEOUT_ACTIVE: The handshake messaging between active and standby has not yet started.

Explanation The initial handshake message exchange between active and standby supervisor engines has not yet started. Traffic on the active supervisor engine is not affected, but supervisor engine redundancy will not work.

Recommended Action Please schedule a downtime ASAP and reset the active supervisor engine.

Error Message C4K_REDUNDANCY-2-HANDSHAKE_TIMEOUT_STANDBY: The handshake messaging between standby and active has not yet started.

Explanation The initial handshake message exchange between standby and active supervisor engines has not yet started. If the active supervisor engine has not completed its initialization, this message may be seen temporarily on the standby supervisor engine. This condition will correct itself once the active supervisor engine initialization is complete. If problems persist after the active supervisor engine is initialized then redundancy will not work.

Recommended Action Please schedule a downtime ASAP and reset the active supervisor engine.

Error Message C4K_REDUNDANCY-2-POSTFAIL_RESET:POST failure on ACTIVE supervisor detected. [char]

Explanation The active supervisor engine failed POST but detected the standby supervisor engine at bootup. It is attempting to reset itself so that the standby supervisor engine can take over as the new active supervisor engine.

Recommended Action You may need to replace the supervisor engine that failed POST. Contact your technical support representative.

Error Message C4K_REDUNDANCY-2-INCOMPATIBLE_SUPERVISORS: [char]

Explanation For proper operation of redundancy, the supervisor engines must be of the same model. In this condition redundancy operations are not available and the standby supervisor engine is disabled because the supervisor engines present are of different models.

Recommended Action Configure the hardware so that the active and standby supervisor engines are of the same model.

Error Message C4K_REDUNDANCY-2-IOS_VERSION_CHECK_FAIL: [char]

Explanation The active and standby supervisor engine software is different. In this condition, redundancy operations are not guaranteed.

Recommended Action Configure the active and standby supervisor engines to use the same version of software.

Error Message C4K_REDUNDANCY-2-IOS_VERSION_INCOMPATIBLE: [char]

Explanation The system detected an incompatible redundancy condition. The active supervisor engine is running Cisco IOS Release 12.2 or later releases and the standby supervisor engine is running Cisco IOS Release 12.1. The system will reset the standby supervisor engine.

Recommended Action Configure the switch so that the active and standby supervisor engines are running the same release of Cisco IOS software.

Error Message C4K_REDUNDANCY-2-NON_SYMMETRICAL_REDUNDANT_SYSTEM: [char]

Explanation The active and standby supervisor engine hardware is different. In this condition, redundancy operations are not guaranteed.

Recommended Action Configure the hardware so that the active and standby supervisor engines are identical.

Error Message C4K_REDUNDANCY-2-POSTFAIL:POST failure on [char] supervisor detected. [char]

Explanation The active supervisor engine failed POST. The current standby supervisor engine resets the current active supervisor engine to standby and attempts to become the active supervisor engine. If the standby supervisor engine failed POST, then it will suspend at bootup and stay there. During this time if the active supervisor engine fails, then the standby supervisor engine will also reboot because it is not a fully functional standby supervisor engine at this point.

Recommended Action Run offline diagnostics on the failed supervisor engine to isolate the problem.

Error Message C4K_REDUNDANCY-2-POSTFAIL_RESET:POST failure on ACTIVE supervisor detected. [char]

Explanation The active supervisor engine failed POST but detected the standby supervisor engine at bootup. The active supervisor engine will reset itself so that the standby supervisor engine can take over as the new active supervisor engine.

Recommended Action Run offline diagnostics on the failed supervisor engine to isolate the failure. Immediate action is not needed for the switch to operate, but redundancy will not be available until there is a second functional supervisor engine.

Error Message C4K_REDUNDANCY-2-SEND_NEGO_FAILED: Redundancy ISSU client failed to send negotiation message. Error: [dec] ([char])

Explanation The redundancy ISSU client failed to send a session negotiation message to the peer device. If a problem occurs with the ISSU session negotiation, the standby device cannot be brought up properly.

Recommended Action Using the **show issu compatibility matrix** command, verify that both the active and standby supervisor engines have software supporting ISSU. Reset the standby supervisor engine using the **redundancy reload peer** command. If problems persist, contact a Cisco technical support representative.

Error Message C4K_REDUNDANCY-2-SESSION_REGISTRY: Redundancy ISSU client failed to register session information. Error: [dec] ([char])

Explanation The Redundancy ISSU client failed to register session information. If a problem occurs with the ISSU session registration, the standby device cannot be brought up properly.

Recommended Action Using the **show issu compatibility matrix** command, verify that both the active and standby supervisor engines have software supporting ISSU. Reset the standby supervisor engine using the **redundancy reload peer** command. If problems persist, contact a Cisco technical support representative.

REDUNDANCY-3

Error Message C4K_REDUNDANCY-3-MSG_SIZE: Redundancy ISSU client failed to get the MTU for Message Type [dec]. Error: [dec] ([char])

Explanation The Redundancy ISSU client failed to calculate the MTU for the specified message. The Redundancy ISSU client is not able to send the message to the standby device.

Recommended Action Using the **show issu compatibility matrix** command, verify that both the active and standby supervisor engines have software supporting ISSU. Reset the standby supervisor engine using the **redundancy reload peer** command. If problems persist, contact a Cisco technical support representative.

Error Message C4K_REDUNDANCY-3-SESSION_UNREGISTRY: Redundancy ISSU client failed to unregister session information. Error: [dec] ([char])

Explanation The redundancy ISSU client failed to unregister session information. This message should only appear while the standby supervisor engine is reloading or if it has been physically removed from the switch. If this message appears while the standby supervisor engine is in normal operation, there may be a software problem but it will probably not affect redundancy functionality.

Recommended Action Check for existing ISSU sessions using the **show issu session** command, there should not be any open sessions during a reload of the standby supervisor engine. Contact a Cisco technical support representative if additional errors are seen after the standby supervisor engine restarts and initializes.

Error Message C4K_REDUNDANCY-3-TRANSFORM_FAIL: Redundancy ISSU client [char] transform failed for 'Message Type [dec]'. Error: [dec] ([char])

Explanation The Redundancy ISSU client could not transform the specified message type. If the transmit transformation failed, the checkpoint message was not sent to the standby device. If the receive transformation failed, the checkpoint message was not applied on the standby device. In both cases, the Redundancy state between the active device and the standby device is not identical.

Recommended Action Using the **show issu compatibility matrix** command, verify that both the active and standby supervisor engines have software supporting ISSU. Reset the standby supervisor engine using the **redundancy reload peer** command. If problems persist, contact a Cisco technical support representative.

Error Message C4K_REDUNDANCY-3-COMMUNICATION: Communication with the peer Supervisor has been [char]

Explanation The status of the peer supervisor engine communication path changed.

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

Error Message C4K_REDUNDANCY-3-NOT_READY_FOR_SWITCHOVER: The active Supervisor failed but standby supervisor cannot initiate Switchover activity. Resetting standby Supervisor.

Explanation The standby supervisor engine is currently in an intermediate state and cannot take over for the primary supervisor engine.

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

Error Message C4K_REDUNDANCY-3-PEER_RELOAD: The peer Supervisor is being reset because [char]

Explanation The supervisor engine was reset for the reason specified by [char]. See the reported error message for the specific reason. This allows recovery from an indeterminate standby state.

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

Error Message C4K_REDUNDANCY-3-SIMPLEX_MODE: The peer Supervisor has been lost

Explanation The peer supervisor engine is absent, and the switch shifted to nonredundant mode.

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

REDUNDANCY-4

Error Message C4K_REDUNDANCY-4-CONFIGSYNCFAIL:Persistent-config Sync to Standby supervisor failed.

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

Recommended Action Contact your technical support representative.

Error Message C4K_REDUNDANCY-4-KEEPALIVE_WARNING: Keepalive messages from peer Supervisor are missing for [dec] seconds

Explanation Keepalive messages have not been sent from the peer supervisor engine. If the situation persists and the keepalive messages do not resume, the peer supervisor engine will eventually be reset. This message is logged for every third missed keepalive message.

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

REDUNDANCY-5

Error Message C4K_REDUNDANCY-5-CALENDAR: The calendar has been successfully synchronized to the standby supervisor for the first time

Explanation The calendar was successfully synchronized to the standby supervisor engine for the first time.

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

Error Message C4K_REDUNDANCY-5-CALENDAR_RATELIMIT: The calendar has been successfully synchronized to the standby supervisor [dec] times since last calendar syslog

Explanation The calendar was successfully synchronized to the standby supervisor engine the specified number of times.

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

Error Message C4K_REDUNDANCY-5-CONFIGSYNC:The [char] has been successfully synchronized to the standby supervisor

Explanation The configuration was successfully synchronized to the standby supervisor engine. [char] can be either a private configuration or a startup configuration.

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

Error Message C4K_REDUNDANCY-5-CONFIGSYNC_RATELIMIT:The [char] has been successfully synchronized to the standby supervisor

Explanation The configuration was successfully synchronized to the standby supervisor engine. 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 only. No action is required.

REDUNDANCY-6

Error Message C4K_REDUNDANCY-6-ACTIVESUPNOTFOUND:Active supervisor not found.

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

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

Error Message C4K_REDUNDANCY-6-ATTEMPTINGTOBECOMEACTIVE:
Attempting to become active supervisor.

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

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

Error Message C4K_REDUNDANCY-6-DUPLEX_MODE: The peer Supervisor has been detected

Explanation A peer supervisor engine was detected, and the switch shifted to duplex mode.

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

Error Message C4K_REDUNDANCY-6-INIT:Initializing as [char] supervisor

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

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

Error Message C4K_REDUNDANCY-6-MODE:[char] supervisor initializing for [char] mode

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

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

Error Message C4K_REDUNDANCY-6-SWITCHOVER:Switchover activity detected

Explanation The standby supervisor engine detected switchover activity.

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

RETMAN Messages

This section contains the RET management (RETMAN) messages.

Error Message C4K_HWRETMAN-3-PARITYERROR: [char] parity error, seen [dec]

Explanation The hardware reported a parity error. This could indicate a transient hardware problem, or a more permanent problem.

Recommended Action If you see this message too often, please reboot the switch.

S2W Messages

This section contains the Calendar (S2W) messages.

Error Message C4K_S2W-4-READCALENDARERR: Calendar read operation Failed

Explanation The calendar read operation failed.

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

Error Message C4K_S2W-4-STARTCALENDAROSCILLATORERR: Failed to start the calendar

Explanation The calendar operation failed to start.

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

Error Message C4K_S2W-4-WRITECALENDARERR: Calendar write operation Failed

Explanation The system was unable to write to the calendar.

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

SPD Messages

This section contains the SPD messages.

Error Message C4K_SPD-3-SDRAMDATAINVALID: Invalid Sdram Spd Data on DIMM module [dec] . Total Sdram on the supervisor is [dec] MB.

Explanation There is a SDRAM SPD data checksum error, the data is invalid.

Recommended Action Use the **show platform spd sdram** command for more details. If a DIMM module is bad, it needs to be returned to Cisco for replacement.

Error Message C4K_SPD-3-SDRAMREADERROR: DIMM module [dec] Spd Read Error: [char] . Total Sdr am on the supervisor is [dec] MB.

Explanation The system encountered a problem when reading SDRAM SPD data.

Recommended Action Use the **show platform spd sdram** command for more details. If a DIMM module is bad, it needs to be returned to Cisco for replacement.

SFF8472 Messages

This section contains the floating-point subsystem (SFF8472) messages.

SFF8472-2

Error Message SFF8472-2-NOMEM: Not enough memory available for [char]

Explanation The SFF8472 subsystem could not obtain the memory that it needed.

Recommended Action Contact your technical support representative.

SFF8472-3

Error Message SFF8472-3-INTERNAL_ERROR: [char]

Explanation The SFF8472 subsystem encountered an internal software error. The error message contains text that can be used to help identify the cause of the problem.

Recommended Action Contact your technical support representative.

Error Message SFF8472-3-READ_ERROR: [char]

Explanation There was an error reading digital optical monitoring information from the transceiver at the specified interface.

Recommended Action Please try removing and reinserting the transceiver. If it still does not work, please replace the transceiver.

Error Message SFF8472-3-UNEXPECTEDEVENT: Process received unknown event (maj [hex] min [hex]).

Explanation A process received an event it did not know how to handle. A process can register to be notified when various events occur in the router.

Recommended Action Contact your technical support representative.

SFF8472-5

Error Message SFF8472-5-THRESHOLD_VIOLATION: [char]: [char]; Operating value: [char]

Explanation There was a threshold violation as specified in the message.

Recommended Action Contact your technical support representative.

SFF8472_FLOAT

Error Message SFF8472_FLOAT-3-INTERNAL_ERROR: [char]

Explanation The SFF8472 floating-point subsystem encountered an internal software error. The error message contains text that can be used to help identify the cause of the problem.

Recommended Action Contact your technical support representative.

SPANTREE Messages

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

SPANTREE-2

Error Message SPANTREE-2-PVSTSIM_OK: PVST Simulation inconsistency cleared on port [char].

Explanation The listed interface is no longer receiving PVST BPDUs advertising information inconsistent with the CIST port information. The PVST simulation inconsistency is cleared and the interface returns to normal operation.

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

Error Message

Error Message SPANTREE-2-BLOCK_BPDUGUARD: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 Remove the device sending BPDUs, or disable the BPDU guard feature. BPDU guard can be locally configured on the interface or globally configured on all ports that have PortFast enabled. After you resolve the conflict, reenab 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 that is associated with the listed spanning tree instance [char] and interface [char] is 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.

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]) that is associated with the listed instance and interface is 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.

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, the 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 are 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** command followed by the **no shutdown** command to restart 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 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 that are 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 loop guard 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 cannot receive), you should replace the old cable with a new cable.

Error Message SPANTREE-2-LOOPGUARD_CONFIG_CHANGE: Loop guard [char] on port [char].

Explanation There was a change in the spanning tree loop guard configuration for the listed interface. When enabled, the interface will be put into blocking state and marked as loop guard inconsistent when the message age timer expires because no BPDUs were received from the designated bridge. This feature is 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 received a BPDU, and if the inconsistency was due to an unidirectional link failure, the problem does not exist anymore. The loop guard inconsistency is cleared for the interface, which is taken out of the blocking state.

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

Error Message SPANTREE-2-PVSTSIM_FAIL: Blocking [char] port [char]: Inconsistent [char] PVST BPDU received on VLAN [dec]

Explanation When a PVST+ switch is connected to an MST switch, the CIST (MST00) becomes the root for all PVST+ spanning trees. Looping occurs if any PVST+ spanning tree has a root with a better preference than IST. To prevent looping, the port, which is on the MST switch that receives the superior message from the PVST+ side, is blocked by root guard.

When STP is converging after a new switch or a switch port is added to the topology, this condition occurs transiently. The port unblocks automatically in such cases.

Recommended Action 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.

Error Message SPANTREE-2-RECV_BAD_TLV: Received SSTP BPDU with bad TLV on [char] [char].

Explanation 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 reappears, copy the message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

Error Message SPANTREE-2-RECV_PVID_ERR: Received BPDU with inconsistent peer vlan id [dec] on [char] [char]

Explanation 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 condition 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.

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 that was superior to the one already in use. The interface is put into a blocking state and marked as root guard inconsistent to prevent a suboptimal spanning tree topology from forming.

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

Error Message SPANTREE-2-ROOTGUARD_CONFIG_CHANGE: Root guard [char] on port [char].

Explanation There was a change in the spanning tree root guard configuration for the listed interface. If root guard is enabled, any BPDU that is received on the interface that advertises a superior spanning tree root bridge to the one that is 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 that are advertising a superior root bridge. The root guard inconsistency is cleared for the interface and then is taken out of the blocking state if appropriate.

Recommended Action This is an informational message only. 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. The interface ID is [char].

Recommended Action This is an informational message only. 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 the port priority and the port number. Each subfield is 8 bits wide, allowing the port number field to represent port numbers between 1 and 255. 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 condition occurs at system initialization 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.

Recommended Action Contact your technical support representative.

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. A port looped back on itself, possibly due to a diagnostic cable that was plugged into the interface. The interface is administratively shut down. [char] is the interface ID.

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

Error Message SPANTREE-3-PRESTD_NEIGH: pre-standard MST interaction not configured ([char]). Please

Explanation The switch has received a pre-standard MST BPDU transmission on a port that is not configured for it. The switch will automatically adjust its mode of operation on this port and will start sending pre-standard BPDUs. However, this auto-detection of pre-standard neighbors is not 100% accurate, and it is recommended to explicitly configure the port for pre-standard MST BPDU transmission. This warning message is displayed only once.

Recommended Action Use the **spanning-tree mst pre-standard** configuration command on all ports that are connected to switches running Cisco's pre-standard version of MST. Migrate all switches in the network to the IEEE standard MST version when it is possible.

SPANTREE-4

Error Message SPANTREE-4-PORT_NOT_FORWARDING: [char] [char] [char] [char]

Explanation The specified interface is not in the forwarding state and forwarding packets.

Recommended Action Contact your technical support representative.

SPANTREE-5

Error Message SPANTREE-5-EXTENDED_SYSID:Extended SysId [char] for type [char]

Explanation The extended system ID feature was 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 (for example, 4096 VLAN support).

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

Error Message SPANTREE-5-ROOTCHANGE: Root Changed for [char] [dec]: New Root Port is [char]. New Root Mac Address is [mac-addr]

Explanation The root changed for an instance of spanning tree.

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

Error Message SPANTREE-5-TOPOTRAP: Topology Change Trap for [char] [dec]

Explanation A trap was generated to indicate the change in topology.

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

SPANTREE-6

Error Message SPANTREE-6-PORT_STATE: Port [char] instance [dec] moving from [char] to [char]

Explanation The spanning tree port changed to another state.

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

Error Message SPANTREE-6-PORTADD_ALL_VLANS: [char] added to all Vlans

Explanation The interface has been added to all VLANs.

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

Error Message SPANTREE-6-PORTDEL_ALL_VLANS: [char] deleted from all Vlans

Explanation The interface has been deleted from all VLANs.

Recommended Action This is an informational message only. 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 [char].

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.

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 [char].

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.

Error Message SPANTREE-7-PORTDEL_SUCCESS: [char] deleted from Vlan [dec]

Explanation The interface was deleted from the specified VLAN.

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

SPANTREE_FAST

Error Message SPANTREE_FAST-7-PORT_FWD_UPLINK: [char] [char] moved to Forwarding (UplinkFast).

Explanation The listed interface was selected as the new root port for the listed spanning tree instance.

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

SPANTREE_VLAN_SW Messages

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 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 that are associated with them. You need to manually enable those spanning trees that cannot be created due to limited instances.

Supervisor Messages

This section contains the supervisor engine specific (C4K_SUPERVISOR) messages.

Error Message C4K_SUPERVISOR-0-SUPNOTSUPPORTEDINCHASSIS: The WS-X4013+TS supervisor is not supported in chassis type [char]

Explanation The WS-X4013+TS is supported only in the Catalyst 4503 chassis. Either the WS-X4013+TS supervisor engine is in a chassis with more than 3 slots, which is a misconfiguration and not supported, or the chassis' serial EEPROM is programmed incorrectly and contains the wrong chassis type.

Recommended Action If this chassis has more than 3 slots, the WS-X4013+TS is not supported in it. If the chassis has 3 slots, and you see this message, collect the output of the **show idprom chassis** command and call Cisco TAC. This chassis needs to be returned to Cisco.

Error Message C4K_SUPERVISOR-3-CSRAMINITERROR: [char]

Explanation Initial K5 CSRAM reset sequence failure. This could indicate a transient or a more permanent problem.

Recommended Action Please reboot the system to check if the problem goes away. After multiple retries if it does not go away, please save the console logs and contact the Cisco Technical Assistance Center.

Error Message C4K_SUPERVISOR-3-CSSPLINITERROR: [char]

Explanation Initial K5 CSSPL interface reset sequence failure. This could indicate a transient or a more permanent problem.

Recommended Action Please reboot the system to check if the problem goes away. After multiple retries if it does not go away, please save the console logs and contact the Cisco Technical Assistance Center.

Error Message C4K_SUPERVISOR-3-DDRDLLOCKERROR: [char]

Explanation DDR-DL associated with DDR/QDR interfaces synchronization failure. This could indicate a transient or a more permanent problem.

Recommended Action Please reboot the system to check if the problem goes away. After multiple retries if it does not go away, please save the console logs and contact the Cisco Technical Assistance Center.

Error Message C4K_SUPERVISOR-3-INITERROR: [char]

Explanation An error occurred during ASIC initialization on the Supervisor Engine. This could indicate a transient or a more permanent problem.

Recommended Action Please reboot the system to check if the problem goes away. After multiple retries if it does not go away, please save the console logs and contact the Cisco Technical Assistance Center.

Error Message C4K_SUPERVISOR-3-SUPOCTALPHYMDIOREADERR:Failed to perform read operation on Octal Serdes at address [dec] for the register at address [dec]

Explanation Unable to read the Octal Serdes on the supervisor engine.

Recommended Action If this continues to happen, please contact your technical support representative to replace the supervisor engine.

Error Message C4K_SUPERVISOR-3-POWERSUPPLYSTATUSREADFAILED: Failed to read power supply [dec]'s status register

Explanation Reading the power supply status register failed.

Recommended Action Try reinserting the power supply. If the problem persists, hot swap it with a new power supply.

Error Message C4K_SUPERVISOR-3-SUPOCTALPHYMDIOREADERR: Failed to perform read operation on Octal Serdes at address [dec] for the register at address [dec]

Explanation There was an error with the Octal Serdes on the supervisor engine.

Recommended Action If this continues to happen, please contact your technical support representative to replace the supervisor engine.

STORM_CONTROL Messages

This section contains the broadcast storm control (STORM_CONTROL) messages.

Error Message STORM_CONTROL-3-FILTERED: A [char] storm detected on [char]. A packet filter action has been applied on the interface.

Explanation The amount of traffic detected on the interface exceeded the configured threshold values. The system filters excess traffic when a packet is received. The system is not forwarding packet traffic.

Recommended Action Determine and fix the root cause of the excessive traffic on the interface.

Error Message STORM_CONTROL-3-SHUTDOWN: A packet storm was detected on [char]. The interface has been disabled.

Explanation The amount of traffic detected on the interface exceeded the configured threshold values. Because the interface was configured to be shut down if a packet storm event is detected, it was placed in an errdisable state.

Recommended Action If automatic recovery is preferred, the errdisable recovery mechanism can be used. Determine and fix the root cause of the excessive traffic on the interface.

STORE Messages

This section contains the storage (STORE) message.

Error Message C4K_STORE-2-OUTOFCHUNKS:Out of chunks of memory

Explanation The system has insufficient memory.

Recommended Action Reboot the switch. If this message reoccurs, add additional memory.

SUPERVISOR Messages

This section contains the supervisor engine (SUPERVISOR) messages.

SUPERVISOR-2

Error Message C4K_SUPERVISOR-2-MUXBUFFERNOTPRESENT: Mux buffer (WS-X4K-MUX) [dec] is not present

Explanation The WS-X4K-MUX mux buffer for slot [dec] is either not connected to the backplane properly or is not present. If the switching module present in this slot cannot be identified, its SEEPROM cannot be read and it will be unusable.

Recommended Action Reseat the mux buffers in the backplane. If the message persists, contact your technical support representative.

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 the problem persists, contact your technical support representative. You will probably need to return the backplane for repair.

Error Message C4K_SUPERVISOR-3-CLOCKMODULESEEPROMREADFAILED: Failed to read clock module's seeprom

Explanation A failure occurred while reading the clock module serial EEPROM. This message should occur only in a prototype switch used in an early field trial.

Recommended Action Check the chassis serial EEPROM information. Contact your technical support representative. You may need to return some switch components for repair or replacement.

Error Message C4K_SUPERVISOR-3-FANTRAYREADFAILED: Failed to read system fan tray status register from hardware

Explanation The fan tray presence was detected, but the system failed to read the fan tray status register contents.

Recommended Action If this message appears only once, this could be a transient error and no action is required. If this message appears repeatedly (once every 10 minutes), replace the system fan tray.

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. This message should occur only in a prototype switch used in an early field trial.

Recommended Action Check the chassis serial EEPROM information. Contact your technical support representative. You may need to return some switch components for repair or replacement.

Error Message C4K_SUPERVISOR-3-MUXBUFFERLOOPBACKFAILED: Failed to put [char] supervisor's module [dec] muxbuffers in loopback

Explanation The serial-to-wire write operation to put the line card mux buffers in loopback failed. This might indicate problems with the line card mux buffers in the Catalyst 4500 series chassis.

Recommended Action Power cycle the switch. If the serial EEPROM is still invalid, contact your technical support representative. You may need to return some switch components for repair or replacement.

Error Message C4K_SUPERVISOR-3-MUXBUFFERREADLOOPBACKFAILED: Failed to read whether [char] supervisor's module [dec] muxbuffers are in loopback

Explanation The serial-to-wire write operation to put the line card mux buffers in loopback failed. This might indicate problems with the line card mux buffers in the Catalyst 4500 series chassis.

Recommended Action Power cycle the switch. If the serial EEPROM is still invalid, contact your technical support representative. You may need to return some switch components for repair or replacement.

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.

Recommended Action Power cycle the switch. If the serial EEPROM is still invalid, contact your technical support representative. You may need to return some switch components for repair or replacement.

Error Message C4K_SUPERVISOR-3-NETFLOWCARDSEEPROMINVALID: Invalid Netflow Services Card seeprom data

Explanation The serial EEPROM on the NetFlow Services Card cannot be read or was not programmed.

Recommended Action For more information, enter the **sprom read nffc** command at the ROMMON prompt.

Error Message C4K_SUPERVISOR-3-NETFLOWCARDSEEPROMREADFAILED: Netflow Services Card seeprom read failed

Explanation A reading of the serial EEPROM on the NetFlow Services Card failed.

Recommended Action For more information, enter the **sprom read nffc** command at the ROMMON prompt.

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 has a revision that is not compatible with this release of software. The card will be ignored.

Recommended Action For more information, enter the **sprom read nffc** command at the ROMMON prompt.

Error Message C4K_SUPERVISOR-3-POWERSUPPLYSTATUSREADFAILED:Failed to read power supply [dec]'s status register

Explanation Reading the power supply status register failed.

Recommended Action Try reinserting the power supply. If the message persists, hot swap it with a new power supply.

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 Reinsert the power supply. If that does not work, replace the old power supply 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 engine cannot be initialized. In a redundant system, you might see packets that are transmitted out the active supervisor engine's nonactive uplink.

Recommended Action Disconnect the second uplink on the active supervisor engine.

Error Message C4K_SUPERVISOR-3-RETIMERINITFAILED:Failed to initialize the retimer of the active supervisor's uplink.

Explanation The retimer on the active supervisor engine cannot be initialized. In a redundant system, you might see packets that are transmitted out the active supervisor engine's nonactive uplink.

Recommended Action Disconnect the second uplink on the active supervisor engine.

Error Message C4K_SUPERVISOR-3-SEEPROMREADFAILED:Failed to read supervisor's serial eeprom, try reinserting supervisor

Explanation A reading of the supervisor engine's serial EEPROM failed. The read might fail if the module is not seated correctly in the slot.

Recommended Action Remove and reinsert the module. If that does not work, power cycle the switch. If the read still fails, contact your technical support representative. You may need to return some switch components for repair or replacement.

SUPERVISOR-4

Error Message C4K_SUPERVISOR-4-INLINEVOLTAGEOUTOFRANGE:Output voltage of the on-board inline power convertor on this board is [char] and is outside the expected range of [char]

Explanation This message should only occur in systems using a Supervisor Engine II-Plus TS. The output voltage of the on-board inline power converter is outside its expected valid range. This condition can occur because of failed PoE components, one or more powered devices drawing more power than expected, or because of problems with the 12 V output of the system power supply.

Recommended Action Use the **show power detail** and **show power inline module 1** commands to verify that the devices drawing PoE are using the expected amount of power, and disconnect them if they are drawing more than desired. If the power supply LEDs are not green, verify at the source that the system power input is correct. If the problem persists, contact your technical support representative. You will probably need to replace the supervisor engine.

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 engine is holding a lock. This error is probably caused by hardware signal latency. Unless there is a real hardware failure, the switch automatically recovers from this state. If there is a persistent hardware failure, this message appears four times.

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

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 engine.

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

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-SEEPROMWRITEFAILED:Failed to write supervisor's serial eeprom

Explanation The software was unable to write to the supervisor engine serial EEPROM.

Recommended Action Remove and reinsert the module. If this message reappears, reboot the switch. If the switch is still unable to write to the EEPROM, contact your technical support representative.

SWITCH-QOS-TB Messages

This section contains the Switch QoS Manager (SWITCH-QOS-TB) messages.

Error Message SWITCH_QOS_TB-5-TRUST_DEVICE_DETECTED: [char] detected on port [char]

Explanation Software detected that a device matching the trusted device boundary setting for the interface and changed the trust state for the interface to trusted.

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

Error Message SWITCH_QOS_TB-5-TRUST_DEVICE_LOST: [char] no longer detected on port [char], port set to untrusted

Explanation The system lost contact with a trusted device and changed the trust state for the interface to untrusted.

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

SW_DAI Messages

This section contains the dynamic ARP inspection (DAIMAN) messages.

SW_DAI-4

Error Message SW_DAI-4-ACL_DENY: [dec]Invalid ARPs (Req) on [chars], vlan [dec].

Explanation The switch received ARP packets that are considered invalid by ARP inspection. The packets are invalid, and their presence indicates that administratively denied packets are in the network. This log message generates when packets have been denied by ACLs either explicitly or implicitly (with static ACL configuration). The presence of these packets indicates a possible “man-in-the-middle” attacks in the network.

Recommended Action To stop these messages from generating, find the source host of these packets and stop the host from sending them.

Error Message SW_DAI-4-DHCP_SNOOPING_DENY: [dec] Invalid ARPs (Req) on [chars], vlan [chars].

Explanation The switch received ARP packets that are considered invalid by ARP inspection. The packets are invalid, and their presence may be an indication of “man-in-the-middle” attacks that are attempted in the network. This message is logged when the IP address and MAC address binding for the sender on the received VLAN is not listed in the DHCP snooping database.

Recommended Action To stop these messages from generating, find the source host of these packets and stop the host from sending them.

Error Message SW_DAI-4-INVALID_ARP: [dec] Invalid ARPs (Req) on [chars], vlan [chars].

Explanation The switch received ARP packets that are considered invalid by ARP inspection. The packets are invalid and do not pass one or more of the source MAC address, destination MAC address, or IP address validation checks. A packet was denied because the source MAC address, destination MAC address, or IP validation failed.

Recommended Action To stop these messages from generating, find the source host of these packets and stop the host from sending them.

Error Message SW_DAI-4-PACKET_BURST_RATE_EXCEEDED: [dec] packets received in [dec] seconds on [char].

Explanation The switch received [dec] number of ARP packets in the specified burst interval. The interface was in the err disabled state and the switch received the packets at a rate higher than the configured packet rate for every second over the configured burst interval. The message is logged just before the interface entered the err disabled state and if the configured burst interval is more than one second.

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

Error Message SW_DAI-4-PACKET_RATE_EXCEEDED: [dec] packets received in [dec] milliseconds on [char].

Explanation The switch received [*dec*] number of ARP packets in the specified duration on the given interface above the exceeded packet rate. This message is logged just before the interface entered the err disabled state and when the burst interval is set to one second.

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

Error Message SW_DAI-4-SPECIAL_LOG_ENTRY: [dec] Invalid ARP packets [%CC]

Explanation The switch received [*dec*] number of ARP packets that the ARP inspection considers invalid. The packets are invalid, and their presence may be an indication of “man-in-the-middle” attacks attempted on the network. This message displays when the rate of incoming packets exceed the DAI logging rate.

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

SW_DAI-6

Error Message SW_DAI-6-ACL_PERMIT: [dec] ARPs (Req) on [chars], vlan [chars].

Explanation The switch received ARP packets that have been permitted because of an ACL match.

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

Error Message SW_DAI-6-DHCP_SNOOPING_PERMIT: [dec] ARPs (Req) on [chars], vlan [chars]

Explanation The switch received ARP packets that have been permitted because the IP and MAC address for the sender match against the DHCP snooping database for the received VLAN.

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

SW-VLAN Messages

This section contains the Switch VLAN Manager (SW-VLAN) messages.

SW-VLAN-3

Error Message SW_VLAN-3-MALLOC_FAIL: Failed to allocate [dec] bytes

Explanation Memory allocation failed.

Recommended Action

Error Message SW_VLAN-3-VLAN_DAT_CACHE_SEQUENCE: Out of sequence vlan.dat sync message. Expected: [dec]; received: [dec].

Explanation The vlan.dat file is synchronized to the standby supervisor engine via one or more checkpoint messages from the active supervisor engine. The sequence number for each such set of checkpoint messages starts with 1. These messages are cached until the end-of-set indication is received. Here, the standby supervisor engine received a checkpoint message with a sequence number that does not match the expected sequence number.

Recommended Action Reset the standby supervisor engine using the **redundancy reload peer** command. If problems persist, contact a Cisco technical support representative.

Error Message SW_VLAN-3-VLAN_DAT_CACHE_SIZE_EXCEED: Data exceeds allocated size. Offset: [dec]; data_size: [dec]; allocated: [dec]

Explanation The vlan.dat file is synchronized to the standby supervisor engine via one or more checkpoint messages from the active supervisor engine. The sequence number for each such set of checkpoint messages starts with 1. These messages are cached until the end-of-set indication is received. Here, the standby supervisor engine received a checkpoint message with a size that does not fit the size of the cache specified in the checkpoint message with sequence number 1.

Recommended Action Reset the standby supervisor engine using the **redundancy reload peer** command. If problems persist, contact a Cisco technical support representative.

Error Message SW_VLAN-3-VLAN_PM_NOTIFICATION_FAILURE: VLAN Manager synchronization failure with Port Manager over [char]

Explanation Due to a lack of ready pool space, the VLAN Manager dropped a notification from the Port Manager.

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

Error Message SW_VLAN-3-VTP_PROTOCOL_ERROR: VTP protocol code internal error: [char]

Explanation The VTP protocol code encountered an unexpected error while processing a configuration request, packet, or timer expiration.

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

SW-VLAN-4

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.

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

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 The VLAN software failed to use the VLAN configuration from a startup-config file. The software will use the binary VLAN configuration file in nonvolatile memory.

Recommended Action This is an informational message only. 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 begins with an unrecognized value and might not be a valid VLAN configuration file. The file was rejected.

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

Error Message SW_VLAN-4-BAD_VLAN_CONFIGURATION_FILE_VERSION: VLAN configuration file contained unknown file version: [dec]

Explanation When the VLAN Manager read the VLAN configuration file it contained an unrecognized file version number. This could indicate an attempt to regress to an older version of the VLAN Manager software.

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

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.

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

Error Message SW_VLAN-4-EXT_VLAN_INTERNAL_ERROR: Extended VLAN manager received an internal error [dec] from [char]: [char]

Explanation The VLAN Manager received an unexpected error code from the extended VLAN configuration software.

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

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 The extended VLAN Manager received invalid data from an extended VLAN configuration database routine.

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

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 a Cisco IOS file system call.

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

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.

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

Error Message SW_VLAN-4-STARTUP_EXT_VLAN_CONFIG_FILE_FAILED: Failed to configure extended range VLAN from startup-config. Error [char]

Explanation The 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 This is an informational message only. No action is required.

Error Message SW_VLAN-4-VLAN_CREATE_FAIL: Failed to create VLANs [char]: [char]

Explanation The VLANs specified in the error message could not be created. The VLAN manager called a VLAN database routine to create one or more VLANs, but the Port Manager could not complete the VLAN creation requests. A possible cause of this error is that the VLANs already exist in the Port Manager as internal VLANs.

Recommended Action Contact your technical support representative.

Error Message SW_VLAN-4-VTP_INTERNAL_ERROR: VLAN manager received an internal error [dec] from vtp function [char]: [char]

Explanation The VLAN Manager received an unexpected error code from the VTP configuration software.

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

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 The VLAN Manager received invalid data from a VTP configuration database routine.

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

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 The VLAN Manager received invalid data from the VTP configuration software.

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

Error Message SW_VLAN-4-VTP_USER_NOTIFICATION: VTP protocol user notification: [char]

Explanation The VTP protocol code encountered an unusual diagnostic condition.

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

Error Message SW_VLAN-4-VTP_SEM_BUSY: VTP semaphore is unavailable for function [char]. Semaphore locked by [char]

Explanation The VTP database is currently locked by another task and is not available. Retry the operation later.

Recommended Action Retry the operation later. If the problem persists, contact your technical support representative.

SW-VLAN-6

Error Message SW_VLAN-6-VLAN_DAT_CACHE_EXISTS: Unexpected vlan.dat cache exists. Removing the cache and continuing the sync with new set.

Explanation An existing VLAN cache file was found while synchronizing supervisor engines. This message is informational only, the switch will continue to work properly even after encountering this situation.

Recommended Action If this message appears frequently, contact your technical support representative.

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 The VLAN software detected an old version of the VLAN configuration file format. The VLAN software was able to interpret the file with no problems, but it will create files using the new format in the future.

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

Error Message SW_VLAN-6-VTP_DOMAIN_NAME_CHG: VTP domain name changed to [char].

Explanation The VTP domain name was changed through configuration to the name specified in the message. A management domain is the naming scope of a VLAN name. Each VLAN has a name that is unique within the management domain.

Recommended Action This is an informational message only. 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. Such a spontaneous conversion occurred, what the previous mode was, and what the current mode is.

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

SWITCHINGENINEMAN Messages

This section contains the switching engine management (SWITCHINGENINEMAN) messages.

SWITCHINGENINEMAN-2

Error Message C4K_SWITCHINGENINEMAN-2-PACKETMEMORYERROR3: Persistent Errors in Packet Memory [dec]

Explanation There is a high rate of persistent errors in packet memory. This condition might indicate a persistent hardware problem.

Recommended Action If this message persists, use the **show platform** commands to show results, contact your technical support representative, and provide the representative with the gathered information.

SWITCHINGENINEMAN-3

Error Message C4K_SWITCHINGENINEMAN-3-BADDELIMITER:Recived CPU packet with bad delimiter

Explanation The software expected a delimiter pattern of successive packets but received some other pattern. This condition might be due to a loss of synchronization between the hardware and the software.

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

Error Message C4K_SWITCHINGENGINEMAN-3-BADASICINTERPOSER: [char] Possibly bad interposer

Explanation A high number of locations in packet memory are reporting errors. The IPP ASIC interposer may have gone bad.

Recommended Action Reboot the supervisor. If the problem persists, contact Cisco TAC.

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.

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

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 condition might indicate a transient hardware problem or a more permanent problem. After 128 packet memory and queue memory errors, the switch reboots.

Recommended Action If you see this message often, reboot the switch.

Error Message C4K_SWITCHINGENGINEMAN-3-DHMPARITYERROR: \"Parity error in DBL Hash Memory, addr=[hex], total errors=%u\"

Explanation There is a parity error in the DM module. This could indicate a transient hardware problem, or a more permanent problem.

Recommended Action If you see this message too often, reboot the switch.

Error Message C4K_SWITCHINGENGINEMAN-3-ERRORINTERRUPT: Error condition detected by hardware. Interrupt Status [hex]

Explanation The hardware detected an error condition and raised an interrupt to the software. The interrupt status value indicates the type of error.

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

Error Message C4K_SWITCHINGENGINEMAN-3-FREELISTMEMORYPARITYERROR: Parity error in freelist memory, flm addr=[hex], reg bits=[hex], total errors=%u

Explanation An error in freelist memory was detected. If this message persists, it may indicate a transient hardware problem, or a more permanent problem leading to memory corruption. After 128 such transmit count errors, the switch will reload.

Recommended Action If the switch is reloading too often due to this condition, you may need to check for environmental conditions such as RFI or other interference. It may also be necessary to replace the supervisor engine.

Error Message C4K_SWITCHINGENGINEMAN-3-IPPCIMTOOMANYERRORS: [char]

Explanation The system received too many parity interrupts in a short time. This could indicate a transient hardware problem, or a more permanent problem.

Recommended Action Please reboot the switch.

Error Message C4K_SWITCHINGENGINEMAN-3-IPPHMTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Integrated Packet Processor's CPU Interface Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-IPPPMTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Integrated Packet Processor's PLD FIFO Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-IPPPRMTTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Integrated Packet Processor's Packet Rewrite Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-IPPPSMTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Integrated Packet Processor's Port Statistics Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-IPPTMMTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Integrated Packet Processor's Transmit Management Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-IPPTOOMANYPACKETMEMORYPARITYERRORS: [char]

Explanation An excessive number of parity errors in packet memory were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-JUMBOPACKET:Recieved a Jumbo CPU packet

Explanation The switch received a packet that is larger than 2032 bytes. This large packet is called a jumbo packet.

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

Error Message C4K_SWITCHINGENGINEMAN-3-NOMEMORYFORRXRING: Not enough memory to initialize CPU packets

Explanation The system ran out of memory while trying to initialize the CPU packet driver.

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

Error Message C4K_SWITCHINGENGINEMAN-3-PACKETENGINERestarted: An error happened in the Packet Engine logic

Explanation The packet engine logic became unstable for unknown reasons.

Recommended Action Reboot the switch.

Error Message C4K_SWITCHINGENGINEMAN-3-PACKETMEMORYERROR2: Multiple Errors in Packet Memory [dec]

Explanation Multiple errors in packet memory were detected. If this message persists, it might indicate a hardware problem.

Recommended Action If this message persists, use the **show platform** commands to show results, contact your technical support representative, and provide the representative with the gathered information.

Error Message C4K_SWITCHINGENGINEMAN-3-PACKETMEMORYPARITYERROR: Parity error in Packet Memory at address [dec] , total errors= [dec]

Explanation There is a parity error in packet memory. This condition might indicate a transient hardware problem or a more permanent problem. After 128 packet memory and queue memory errors, the switch reloads automatically.

Recommended Action If this message reoccurs, reboot the switch. If the message appears every time the switch boots, run the **show diagnostics online** command and send the results to your technical support representative.

Error Message C4K_SWITCHINGENGINEMAN-3-PACKETMEMORYTESTFAILURE:Packet Memory buffer test failed!!! Insufficient packet buffers are available to continue booting.

Explanation The packet memory diagnostic bootup test detected too many failures for switch operation to continue.

Recommended Action Refer to the Release Note attachment in the DDTS for CSCdz57255.

Error Message C4K_SWITCHINGENGINEMAN-3-PACKETMEMORYTESTPARTIALFAILURE:Packet Memory buffer test detected errors with [dec] % of the packet buffers. Switch operation will continue, with potentially reduced performance. Use 'show diagnostic result module all detail' command to see test results.

Explanation The packet memory diagnostic bootup test detected failures, but there are still a sufficient number of working buffers to enable switch operation.

Recommended Action Use the **show diagnostic result module all detail** command to see the test results. Refer to the Release Note attachment in the DDTS for CSCdz57255.

Error Message C4K_SWITCHINGENGINEMAN-3-PPECELLDUPDETECTED: Free cell duplicate(s) detected [hex]. System will be reset!

Explanation The system detected free cell duplication, and will be reset. This message may also erroneously appear when using jumbo packets or if sharing is configured and transmit queues have backed up.

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

Error Message C4K_SWITCHINGENGINEMAN-3-PPELEAKDETECTED: Hardware buffer leak detected. System will be reset!

Explanation A PPE leak was detected, and the system will reset. This may be due to a transient hardware problem with the packet buffer related memories. This message may also erroneously appear if using jumbo packets or if sharing is configured and transmit queues have backed up.

Recommended Action This is an informational message only. No action is required. To suppress the automatic reset action use the **diagnostic monitor action conservative** command.

Error Message C4K_SWITCHINGENGINEMAN-7-PPELEAKMONITOR: Current Freelist count %u. Fell below threshold %u times consecutively

Explanation The PPE freelist count is being monitored. Packet buffer leak detection is on and the freelist count is being monitored. This message displays the current count and number of times the count reached the threshold. If the freelist count stays below the threshold for more than one minute, the system will be reset. This message may also erroneously appear if using jumbo packets or if sharing is configured and transmit queues have backed up.

Recommended Action This is an informational message only. No action is required. To suppress the automatic reset action use the **diagnostic monitor action conservative** command.

Error Message C4K_SWITCHINGENGINEMAN-3-RDPMEOPMISMATCHERROR: RdpMEopMismatch error , subcell addr=[hex], reg bits=[hex], total errors=%u

Explanation An error in a packet's cell was detected. This could indicate a problem with the packet cell linked list or subcell count memory. If this message persists, it may indicate a transient hardware problem, or a more permanent problem. After 1024 such End-Of-Packet mismatch errors, the switch will reload.

Recommended Action After 1024 such End-Of-Packet mismatch errors, the switch will reload. If the switch is reloading too often due to this condition, you may need to check for environmental conditions such as RFI or other interference. It may also be necessary to replace the supervisor engine.

Error Message C4K_SWITCHINGENGINEMAN-3-SUBCELLCNTMEMORYPARITYERROR: Parity error in subcell count memory, addr=[hex], reg bits=[hex], total errors=%u

Explanation An error in subcell count memory was detected. If this message persists, it may indicate a transient hardware problem, or a more permanent problem. After 128 such subcell count errors, the switch will reload.

Recommended Action If the switch is reloading too often due to this condition, you may need to check for environmental conditions such as RFI or other interference. It may also be necessary to replace the supervisor engine.

Error Message C4K_SWITCHINGENGINEMAN-3-TXCNTMEMORYPARITYERROR: Parity error in transmit count memory, addr=[hex], reg bits=[hex], total errors=%u

Explanation An error in transmit count memory was detected. If this message persists, it may indicate a transient hardware problem, or a more permanent problem. After 128 such transmit count errors, the switch will reload.

Recommended Action If the switch is reloading too often due to this condition, you may need to check for environmental conditions such as RFI or other interference. It may also be necessary to replace the supervisor engine.

Error Message C4K_SWITCHINGENGINEMAN-3-QUEUEMEMORYPARITYERROR: Parity error in Queue Memory, addr=[hex], total errors=%u

Explanation There is a parity error in the queue memory. This condition might indicate a transient hardware problem or a more permanent problem. After 128 packet memory and queue memory errors, the switch reloads.

Recommended Action If this message reoccurs, reboot the switch.

Error Message C4K_SWITCHINGENGINEMAN-3-TRANSMITQUEUESINIT: Tx Queues initialized multiple [dec] times

Explanation The transmit queues had to be initialized multiple times.

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

Error Message C4K_SWITCHINGENGINEMAN-3-RXDELIMITERERROR: Invalid packet delimiter received. Expected [hex] Received [hex]

Explanation Successive packets that are sent by the hardware to the CPU have a specific delimiter pattern. The software expected a delimiter pattern but received some other pattern. This condition might be caused by synchronization loss between the hardware and the software.

Recommended Action Reboot the switch.

Error Message C4K_SWITCHINGENGINEMAN-3-VFECITOOMANYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's CPU Interface Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFEFLTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's Forwarding Lookup Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFEICTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's Input Classification Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFEIMTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's Input Mapping Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFEL2TOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's L2 Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFEOCTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's Output Classification Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFEOPTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's Output Processing Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFERMTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's Replication Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFERPTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's Replication Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFESUTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's Statistics Update Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

Error Message C4K_SWITCHINGENGINEMAN-3-VFETQTOOMANYPARITYERRORS: [char]

Explanation An excessive number of errors in the Very-fast Forwarding Engine's Transmit Queue Module were detected in a short time. Software will automatically reboot the supervisor engine. This could be a permanent hardware problem.

Recommended Action If the problem persists after the software reboots the supervisor engine, contact Cisco TAC.

SWITCHINGENGINEMAN-4

Error Message C4K_SWITCHINGENGINEMAN-4-IPPCIMINTERRUPT: [char]

Explanation An error in the Integrated Packet Processor's CPU Interface Module was detected. Contents of the log register are printed out. This is probably a transient hardware issue affecting a single packet in transit through the switch.

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

Error Message C4K_SWITCHINGENGINEMAN-4-IPPHPMINTERRUPT: [char]

Explanation An error in the Integrated Packet Processor's Header Parser Module was detected. Contents of the log register are printed out. This could be a transient hardware issue affecting a single packet in transit through the switch, a parity error in a table that software is capable of correcting, or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

Error Message C4K_SWITCHINGENGINEMAN-4-IPPINTERRUPT: [char]

Explanation A parity error in the packet memory was detected. Contents of the log register are printed out. This is probably a transient hardware issue affecting a single packet in transit through the switch.

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

Error Message C4K_SWITCHINGENGINEMAN-4-IPPLLCINTERRUPT: [char]

Explanation Available packet buffers have briefly dropped below the control packet threshold and hence only control packets are processed. There are no packet buffers available to process incoming data packets. This is most likely a temporary condition caused by transmit queue congestion on one or more ports that are buffering large numbers of packets.

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

Error Message C4K_SWITCHINGENGINEMAN-4-IPPPFMINTERRUPT: [char]

Explanation A parity error in the Integrated Packet Processor's PLD FIFO Module was detected. Contents of the log register are printed out. This is probably a transient hardware issue affecting a single packet in transit through the switch

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

Error Message C4K_SWITCHINGENGINEMAN-4-IPPPRMINTERRUPT: [char]

Explanation A parity error in the Integrated Packet Processors's Packet Rewrite Module was detected. Contents of the log register are printed out. This error affects a table entry that software is capable of correcting.

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

Error Message C4K_SWITCHINGENGINEMAN-4-IPPPSMINTERRUPT: [char]

Explanation A parity error in the Integrated Packet Processors's Port Statistics Module was detected. Contents of the log register are printed out. This is a parity error in one of the port statistics counters.

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

Error Message C4K_SWITCHINGENGINEMAN-4-IPPTMMINTERRUPT: [char]

Explanation A parity error in the Integrated Packet Processor's Transmit Management Module was detected. Contents of the log register are printed out. This could be a transient hardware issue affecting a single packet in transit through the switch or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

Error Message C4K_SWITCHINGENGINEMAN-4-TCAMINTERRUPT: [char]

Explanation A parity error in a TCAM entry was detected. Contents of the log register are printed out. Software will automatically perform error recovery on the defective TCAM entry.

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

Error Message C4K_SWITCHINGENGINEMAN-4-PACKETMEMORYERROR: Error in Packet Memory [dec]

Explanation An error in packet memory was detected. If this message persists, it might indicate a hardware problem.

Recommended Action If this message persists, use the **show diagnostics online** command, contact your technical support representative, and provide the representative with the gathered information.

Error Message C4K_SWITCHINGENGINEMAN-4-SYSTEMNOTRESET: System has already been reset [dec] times due to Packet Memory errors. System will not be reset anymore

Explanation The software detected a large number of errors in the packet memory and reset the switch. This condition indicates a hardware problem. However, the system only reset [dec] times by software to prevent an auto-boot followed by a reset loop.

Recommended Action Replace the switch. If you do not replace the switch, errors may persist and the system will reset again.

Error Message C4K_SWITCHINGENGINEMAN-4-VFECIINTERRUPT: [char]

Explanation An error in the Very-fast Forwarding Engine's CPU Interface Module was detected. Contents of the log register are printed out. This is probably a transient hardware issue affecting a single packet in transit through the switch.

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

Error Message C4K_SWITCHINGENGINEMAN-4-VFEFLINTERRUPT: [char]

Explanation A parity error in the Very-fast Forwarding Engine's Forwarding Lookup Module was detected. Contents of the log register are printed out. This could be a transient hardware issue affecting a single packet in transit through the switch or a parity error in a table entry that software is capable of correcting.

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

Error Message C4K_SWITCHINGENGINEMAN-4-VFEICINTERRUPT: [char]

Explanation An error in the Very-fast Forwarding Engine's Input Classification Module was detected. Contents of the log register are printed out. This could be a parity error in a table that software is capable of correcting or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

Error Message C4K_SWITCHINGENGINEMAN-4-VFEIMINTERRUPT: [char]

Explanation An error in the Very-fast Forwarding Engine's Input Mapping Module was detected. Contents of the log register are printed out. This could be a transient hardware issue affecting a single packet in transit through the switch, a parity error in a table that software is capable of correcting, or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

Error Message C4K_SWITCHINGENGINEMAN-4-VFEL2INTERRUPT: [char]

Explanation An error in the Very-fast Forwarding Engine's L2 Module was detected. Contents of the log register are printed out. This could be a parity error in a table that software is capable of correcting or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

Error Message C4K_SWITCHINGENGINEMAN-4-VFEOCINTERRUPT: [char]

Explanation An error in the Very-fast Forwarding Engine's Output Classification Module was detected. Contents of the log register are printed out. This could be a parity error in a table that software is capable of correcting or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

Error Message C4K_SWITCHINGENGINEMAN-4-VFEOPINTERRUPT: [char]

Explanation An error in the Very-fast Forwarding Engine's Output Processing Module was detected. Contents of the log register are printed out. This could be a transient hardware issue affecting a single packet in transit through the switch, a parity error in a table that software is capable of correcting, or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

Error Message C4K_SWITCHINGENGINEMAN-4-VFERMINTERRUPT: [char]

Explanation An error in the Very-fast Forwarding Engine's Replication Module was detected. Contents of the log register are printed out. This could be a transient hardware issue affecting a single packet in transit through the switch, a parity error in a table that software is capable of correcting, or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

Error Message C4K_SWITCHINGENGINEMAN-4-VFERPINTERRUPT: [char]

Explanation An error in the Very-fast Forwarding Engine's Rate Policer was detected. Contents of the log register are printed out. This could be a parity error in a table that software is capable of correcting or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

Error Message C4K_SWITCHINGENGINEMAN-4-VFESUINTERRUPT: [char]

Explanation A parity error in the Very-fast Forwarding Engines's Statistics Update Module was detected. Contents of the log register are printed out. This is a parity error in one of the statistics counters.

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

Error Message C4K_SWITCHINGENGINEMAN-4-VFETQINTERRUPT: [char]

Explanation An error in the Very-fast Forwarding Engine's Transmit Queue Module was detected. Contents of the log register are printed out. This could be a transient hardware issue affecting a single packet in transit through the switch, a parity error in a table that software is capable of correcting, or a fatal error.

Recommended Action If this message is a fatal error, contact Cisco TAC. Otherwise, no further actions are necessary.

SWITCHINGENGINEMAN-6

Error Message C4K_SWITCHINGENGINEMAN-6-PENDINGVFECIINTR: Pending interrupts in VFE CPU interface: [dec]

Explanation NOT AVAILABLE YET.

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

SWITCHINGENGINEMAN-7

Error Message C4K_SWITCHINGENGINEMAN-7-PACKETMEMORYINIT: Mismatched Reads: [dec] PM parity error: [object-info]

Explanation Errors occurred in writing and reading Packet Memory during initialization.

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

SWITCHMANAGER 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 message is a debug message that is used by developers only and should not occur during operation.

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

Error Message C4K_SWITCHMANAGER-3-DUPLICATESWPORT: Internal Event: Tried to create new sw PimPort [char], but it already exists

Explanation This message is a debug message that is used by developers only and should not occur during operation.

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

Error Message C4K_SWITCHMANAGER-3-SSOACTIVEPORTACKTIMEOUT: Internal Event: timed out after [dec] iterations waiting for Standby to acknowledge port status change for [char]

Explanation There is probably a software failure creating a communication problem between the active supervisor engine and the standby supervisor engine. SSO Redundancy mode cannot operate reliably when this condition occurs.

Recommended Action Contact your technical support representative.

Error Message C4K_SWITCHMANAGER-3-SSOHARDWAREACKTIMEOUT: Internal Event: timed out after [dec] iterations waiting for the [char] hardware to be programmed

Explanation The active supervisor engine is taking more time than usual to program the hardware. This should not affect normal behavior or SSO functionality. In the worst case you may see link flaps when the supervisor engines switch over.

Recommended Action This is an informational message only. No action is required. If the problem persists, contact your technical support representative.

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.

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

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.

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

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.

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

Error Message C4K_SWITCHMANAGER-4-S2WERROR:Power control to port [char] bad. Possibly power is turned on.

Explanation This is a communication error in PoE power management.

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

Error Message C4K_SWITCHMANAGER-4-S2WERRORREPORT: PimEthAutoNeg: S2w Read/Write Error for port [char].

Explanation A read/write error occurred on the specified port.

Recommended Action Refer to the release notes to verify whether you can see all the symptoms described for CSCef87815. If you do not and do not see any adverse effect on the functionality of the PoE linecards (WS-X4248-RJ45V, WS-X4248-RJ21V, WS-X4548-RJ45V, WS-X4224-RJ45V or WS-X4524-RJ45V), then treat this message as an informational message only and no action is required.

Error Message C4K_SWITCHMANAGER-4-SSOEANWARNPORTRESET: The state of the port [char] is unknown after switchover, resetting its link.

Explanation A new switching module was inserted, and the active supervisor engine crashed unexpectedly before it could communicate the state of ports on the new module to the standby supervisor engine. The standby supervisor engine will assume that the port's link is down.

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

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 condition is usually caused by a bad connection or problems with the link-level hardware. The switch will temporarily shut down the problem port. Every 5 seconds, the switch reenables 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.

SWNETFLOWMAN Messages

This section contains the Software NetFlow Manager (SWNETFLOWMAN) messages.

SWNETFLOWMAN-4

Error Message C4K_SWNETFLOWMAN-4-FLOWSTATISTICSLOST: Flow rate too high. [dec] packet byte count statistics update lost [object-info]

Explanation The Cisco IOS flow uses 32-bit counters to store bytes per flow. The NetFlow Services Card engine uses 39-bit counters. When the switch reports a flow byte count that is greater than 32 bits, it stores the first 32 bits and logs a warning message.

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

Error Message C4K_SWNETFLOWMAN-4-NETFLOWCACHEFULL: Netflow hardware-software map cache full. Could not create a map.

Explanation The switch uses a map to correlate flow in the software with corresponding flows in the hardware. This map is full and the switch cannot create any more mappings. This is a very rare condition. The switch is running at full capacity.

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

SWNETFLOWMAN-6

Error Message C4K_SWNETFLOWMAN-6-FIXEDCREATIONTIME:Fixed creation time of [dec] flows.

Explanation The system did not record the creation time of a flow. In this case, the system determined a creation time, which is usually the same time that was used for the last flow.

Recommended Action If this message reoccurs frequently, and you see that the system is fixing a lot of flows, contact your technical support representative.

SYSMAN Messages

This section contains the System Manager (SYSMAN) messages.

SYSMAN-2

Error Message C4K_SYSMAN-2-POWERONSELFTESTFAIL:Supervisor module in slot [dec] failed Power-On-Self-Test(POST). Line cards are ****NOT**** initialized. Please use 'show diagnostics result module [dec]test <tid> detail' command for details.

Explanation A power-on self test (POST) failure is detected on the supervisor engine. When this occurs, the modules are not initialized.

Recommended Action Use the **show diagnostics result module dec test tid detail** command to isolate the problem. Reset the switch after you have resolved the supervisor engine failure.

SYSMAN-3

Error Message C4K_SYSMAN-3-LINECARDIAGSFAILED:Module in slot [dec] failed online diagnostics. Please use 'show diagnostics result module [dec]test <tid> detail' command for details.

Explanation A module failed online diagnostics. When this occurs, 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, copy the message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

Error Message C4K_SYSMAN-3-LINECARDIAGSPARTIALFAILURE:Partial failure on module [dec]. Please use 'show diagnostics result module [dec]test <tid> detail' command for details.

Explanation Some of the module's ports have failed online diagnostics.

Recommended Action Remove and reinsert the switch. If the problem persists, copy the message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

SYSMAN-4

Error Message C4K_SYSMAN-4-MORETHANONEDEBUGCOMMANDEXECUTING:Cannot execute '[char]' right now, please try again later

Explanation More than one Telnet session issued a debugging command at the same time. Only one Telnet session can issue a debugging command at the same time. All Telnet sessions receive this message, except the Telnet session that issued the command first.

Recommended Action Try the command when other Telnet sessions are not issuing debugging commands.

TRANSCEIVER Messages

This section contains the TRANSCEIVER subsystem messages.

Error Message TRANSCEIVER-3-INTERNAL_ERROR: [char]

Explanation The TRANSCEIVER subsystem encountered an internal software error. The error message contains text that can be used to help identify the cause of the problem.

Recommended Action Contact your technical support representative.

Error Message TRANSCEIVER-3-LAYER_CHANGE_ERROR: Error changing layer for port [char]

Explanation The TRANSCEIVER subsystem encountered an internal software error while changing the layer for this port.

Recommended Action Contact your technical support representative.

Error Message C4K_TRANSCEIVERMAN-3-BADSEEPROM: Port [char]: Transceiver's seeeprom is bad, try reinserting: vendor: [char], p/n: [char], s/n: [char]

Explanation A transceiver with a serial EEPROM has been detected in the port referred to in the message, and the read of the serial EEPROM's contents succeeded, but the contents are not valid (perhaps there was a bad checksum). The message tells the vendor, part number and serial number it read from the transceiver's serial EEPROM. This event could possibly happen because the transceiver is not seated correctly.

Recommended Action Try removing and reinserting the transceiver. If this message still appears after that, try the transceiver in another port, to verify that the transceiver is bad, and not the port. If the transceiver fails in another port, return the transceiver, as the transceiver must be reprogrammed for it to work. If the transceiver succeeds in other ports, but not the original port, that implies that the original port is bad, not the transceiver, and the module needs to be returned, to fix the port. As a further test of the port, other transceivers could be tried in the suspected bad port. If these other transceivers also fail in that port, it is very likely that the port is bad.

Error Message C4K_TRANSCEIVERMAN-3-INCOMPATIBLE: Port [char]: New transceiver (speed [char]) is in compatible with this module

Explanation The inserted transceiver is an incompatible type for this module. Please check documentation on supported transceivers for this module. Please make sure the speed of the inserted transceiver matches with the port speed and it is of a supported type for this module.

Recommended Action Remove this transceiver from the port if it is found to be of incompatible type for this module.

Error Message C4K_TRANSCEIVERMAN-3-MDIOERROR: Mdio bus error while looking for changed x2s on port [char]: [char]

Explanation There was an internal communication error when reading transceiver control data.

Recommended Action Remove and re-insert the transceiver. It may not be properly seated.

Error Message C4K_TRANSCEIVERMAN-3-S2WERROR: S2w bus error while looking for changed transceivers on port [char]: [char]

Explanation Internal communication error when reading transceiver control data.

Recommended Action Remove and re-insert the transceiver. It may not be properly seated.

Error Message C4K_TRANSCEIVERMAN-3-SEEPROMREADFAILED: Failed to read transceiver serial eeprom on port [char], try reinserting

Explanation A transceiver with a serial EEPROM has been detected in the port referred to in the message, but the read of the serial EEPROM's contents failed. It is necessary to read the serial EEPROM to determine what sort of transceiver it is. Sometimes the read fails because the transceiver is not seated correctly.

Recommended Action Try removing and reinserting the transceiver. If this message still appears after that, try the transceiver in another port, to verify that the transceiver is bad, and not the port. If the transceiver fails in another port, return the transceiver, as the transceiver must be reprogrammed for it to work. If the transceiver succeeds in other ports, but not the original port, that implies that the original port is bad, not the transceiver, and the module needs to be returned, to fix the port. As a further test of the port, other transceivers could be tried in the suspected bad port. If these other transceivers also fail in that port, it is very likely that the port is bad.

UFAST_MCAST_SW Messages

This section contains the UplinkFast (UFAST_MCAST_SW) 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 The UplinkFast packets will not be transmitted as the process cannot be created.

Recommended Action Reload UplinkFast. If this problem persists even after the reload, copy the message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered 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 are not 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 An error occurred when the system tried to allocate memory for the VQP client.

Recommended Action Copy the message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

Error Message VQPCIENT-2-DENY: Host [enet] denied on interface [chars]

Explanation The VLAN Membership Policy Server (VMPS) 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 This is an informational message only. No action is 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 An error occurred during initialization of the VQP client platform-specific code.

Recommended Action Copy the message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

Error Message VQPCIENT-2-IPSOCK: Could not obtain IP socket

Explanation An error 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, contact your technical support representative, and provide the representative with the gathered information.

Error Message VQPCIENT-2-PROCFAIL: Could not create process for VQP. Quitting

Explanation An error occurred while creating a process for the VQP client.

Recommended Action Copy the message exactly as it appears on the console or in the system log, contact your technical support representative, and provide the representative with the gathered information.

Error Message VQPCIENT-2-SHUTDOWN: Interface [chars] shutdown by VMPS

Explanation The VMPS directed that an interface be shut down. [chars] is the interface name.

Recommended Action This is an informational message only. No action is 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 The system 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 The VMPS 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 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 This is an informational message only. No action is required. If this message reoccurs, verify the VMPS configuration and that unexpected hosts are not connected to the port.

Error Message VQPCIENT-3-VLANNAME: Invalid VLAN ([chars]) in response

Explanation VMPS 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.

VQPCIENT-7

Error Message VQPCIENT-7-NEXTSERV: Trying next VMPS

Explanation The system lost connectivity with the current VMPS and is changing to the next server in its list.

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

Error Message VQPCLIENT-7-PROBE: Probing primary server [IP_address]

Explanation The system is trying to reestablish connectivity with the primary VMPS at the given IP address.

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

Error Message VQPCLIENT-7-RECONF: Reconfirming VMPS responses

Explanation The switch is reconfirming all responses with the VMPS.

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

WATCHDOG Messages

This section contains the watchdog (WATCHDOG) message.

Error Message C4K_WATCHDOG-3-CHILDFailure: Watchdog failure ([char]) - system may reset

Explanation The job [*char*] was unscheduled and not started soon enough to start its watchdog timer.

Recommended Action Determine what other activity is utilizing the supervisor engine.



INDEX

A

abbreviations

- chars/char, variable field [1-4](#)
- dec, variable field [1-4](#)
- hex, variable field [1-4](#)
- num, variable field [1-4](#)

ACL message [2-2](#)

audience profile [iii-ix](#)

B

BUFFER message [2-3](#)

C

CAM [2-17](#)

CHASSIS messages [2-4](#)

COMMONHWACLMAN messages [2-16](#)

conventions when showing commands, documentation [x](#)

D

date/time stamp designations [2-1](#)

documentation

- conventions [x](#)
- organization [ix](#)
- related [ix](#)

DTP messages [2-26, 2-27](#)

Dynamic Trunk Protocol messages

See DTP messages

E

EBM messages [2-27](#)

EC messages [2-30](#)

F

facility codes

description [1-1](#)

table [1-1](#)

G

GBIC messages [2-36](#)

H

Hardware ACL management messages [2-37](#)

Hardware port management messages [2-43](#)

I

Interface descriptor block management messages [2-46](#)

IOS IGMP Snoop management message [2-50](#)

IOS interface messages [2-50](#)

IOS IP route management messages [2-53](#)

IOS layer 2 management message [2-55](#)

IOS system messages [2-66](#)

IP routing messages [2-67](#)

L

Layer 3 hardware forwarding messages [2-71](#)

M

memory messages [2-116](#)

messages

facility codes [1-1](#)

message-texts [1-4](#)

mnemonic codes [1-4](#)

severity levels [1-3](#)

VQP client [2-148](#)

message-texts [1-4](#)

mnemonic codes [1-4](#)

Module management protocol messages [2-77](#)

module serial EEPROM, writing to [2-1](#)

N

no shutdown command [2-111](#)

P

Packet processing messages [2-81](#)

PM messages [2-85](#)

Port fan out ASIC 4x1000 management messages [2-91](#)

Port fan out ASIC 8x1000 hardware message [2-92](#)

Port fan out ASIC 8x100 management messages [2-93](#)

Q

Quality of Service (QOS) message [2-94](#)

S

severity levels

description [1-3](#)

table [1-3](#)

spanning tree fast convergence extensions message

See SPANTREE-FAST message

spanning tree protocol messages

See SPANTREE messages

SPANTREE-FAST message [2-114](#)

SPANTREE messages [2-113](#)

SPANTREE-VLAN switch message [2-114](#)

Supervisor messages [2-117](#)

Switching engine management messages [2-128](#)

system error messages

example [1-4](#)

structure [1-1](#)

System management messages [2-144](#)

T

traceback reports [1-5](#)

U

UplinkFast messages [2-147](#)

V

variable fields

definition [1-4](#)

table [1-4](#)

VLAN Query Protocol Client messages

See VQP Client messages.

VQP client messages [2-148](#)

W

Watchdog message [2-150](#)