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 Technical Assistance" section on page xiv.

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.

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.

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-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 4 minutes all line cards will be placed into Reset-Mode`

Explanation Two or more fans in the system fan tray or power supplies 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-INSUFFICIENTFANSSHUTDOWN: Resetting linecards due to fan tray failure`

Explanation One or more required fans in the fan tray or the power supplies is malfunctioning. Software reset the modules to reduce heat generation.

Recommended Action Replace the broken fans as soon as possible.

Error Message `C4K_CHASSIS-2-INSUFFICIENTPOWERDETECTED:Insufficient power available for the current chassis configuration`

Explanation The current chassis configuration exceeds power availability. If this 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.

CHASSIS-3

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

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

Explanation 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-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-MUXBUFFERSEEPROMINVALID: Invalid data in mux buffer [dec]'s serial eeprom`

Explanation The mux buffer serial EEPROM could not be read or has not been programmed.This message should occur only in a prototype switch used in an early field trial.

Recommended Action Reseat the mux buffers 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_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: Module (Field Replaceable Unit minor type [dec]) is not supported in slot [dec]`

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 This is an informational message only. No action is required. If possible, move the switching module to another slot, and use a supported module in the original slot.

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-SEEPROMREADFAILEDAFTERWRITE: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 transceevers 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-TEMPERATURESENSORREADFAILED: Failed to read the supervisor temperature sensor`

Explanation The temperature sensor on the supervisor engine cannot be read. If the chassis becomes overheated, this condition will not be reported.

Recommended Action If this message appears only once, this error could be transient and no action is required. If this message appears repeatedly (once every 30 minutes), inspect and, if necessary, replace the temperature sensor on 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-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-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.

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-FAILEDTOSWITCHPORTTAGS:Failed to switch port tags, old tag: [object-info] new tag: [object-info] . Software paths: [dec] Hardware paths: [dec]`

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

Recommended Action Detaching and reattaching the ACLs (and policies) might solve the problem.

Error Message `C4K_COMMONHWACLMAN-4-FAILEDTOSWITCHVLANTAGS:Failed to switch vlan tags, old tag: [object-info] new tag: [object-info] . Software paths: [dec] Hardware paths: [dec]`

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

Recommended Action Detaching and reattaching the ACLs (and policies) might solve the problem.

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

Explanation ACL-based features are now successfully loaded. Packets that were previously processed in software due to a 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.

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-OUTOFTAGS:No more free tags available for path ( [object-info] )`

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

Recommended Action Remove unnecessary ACLs from some interfaces.

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] 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-PUNTTOSOFTWARE: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`

Explanation A software sanity check failed in the DHCP snooping process.

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

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_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-MSG_ERR: Unknown message event received`

Explanation Due to an unexpected event the 802.1X process received an unknown message.

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-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-ERR_CHANNELLING: Dot1x can not be enabled on Channelling ports`

Explanation Dot1x could not be enabled on the channelling port. This condition was caused by trying to set Dot1x port-control to auto or force-unauthorized (Force_unauth) mode on a channelling port, which is not allowed.

Recommended Action Disable channeling on the interface, and then enable 802.1X.

Error Message `DOT1X-5-ERR_VVID_NOT_SUPPORTED: Dot1x can not be enabled on this port with Voice VLAN configured.`

Explanation Dot1x with voice VLAN is not supported on this port on this platform.

Recommended Action Remove the voice VLAN configuration on this port and retry the Dot1x operation.

Error Message `DOT1X-5-ERR_DYNAMIC: Dot1x can not be enabled on Dynamic ports`

Explanation Dot1x could not be enabled on the Dynamic mode port. This condition was caused by trying to set Dot1x port-control to auto or force-unauthorized (Force_unauth) mode on a dynamic mode port, which is not allowed.

Recommended Action Disable the dynamic mode on the interface, and then enable 802.1X.

Error Message `DOT1X-5-ERR_DYNAMIC_VLAN: Dot1x can not be enabled on dynamic VLAN ports.`

Explanation Dot1x could not be enabled on the Dynamic VLAN port. This condition was caused by trying to set Dot1x port-control to auto or force-unauthorized (Force_unauth) mode on a dynamic VLAN port, which is not allowed.

Recommended Action Disable the dynamic VLAN on the interface, and then enable 802.1X.

Error Message `DOT1X-5-ERR_INVALID_AAA_ATTR: Got invalid AAA attribute settings [char]`

Explanation The authorization settings obtained are either unsupported or invalid.

Recommended Action Change the value to reflect the correct settings.

Error Message `DOT1X-5-ERR_INVALID_TUNNEL_MEDIUM_TYPE: Got an invalid value [char] for TUNNEL_MEDIUM_TYPE [char]`

Explanation The provided TUNNEL_MEDIUM_TYPE is either unsupported or invalid.

Recommended Action Change the value to reflect the correct tunnel medium type.

Error Message `DOT1X-5-ERR_INVALID_TUNNEL_TYPE: Got an invalid value of [char] for TUNNEL_TYPE [char]`

Explanation The provided TUNNEL_TYPE is either unsupported or invalid.

Recommended Action Change the value to reflect the correct tunnel type.

Error Message `DOT1X-5-ERR_MULTI_ACCESS:Dot1x can not be enabled on voice vlan configured ports.`

Explanation 802.1X cannot be enabled on a voice VLAN-configured port. This condition is caused by trying to set 802.1X port control to **auto** or **force-unauthorized** (**force_unauth**) mode on a voice VLAN-configured port, which is not allowed.

Recommended Action Disable voice VLAN on the interface, and then enable 802.1X.

Error Message `DOT1X-5-ERR_PER_USR_IP_ACL: Applied per-user IP ACL was unsuccessful on interface [char]`

Explanation Dot1x could not successfully apply per-user IP ACL, one possible cause could be an invalid pub from the RADIUS server.

Recommended Action Reconfigure the RADIUS pub.

Error Message `DOT1X-5-ERR_PER_USR_MAC_ACL: Applied per-user MAC ACL was unsuccessful on interface [char]`

Explanation 802.1X cannot successfully apply a per-user MAC ACL possibly because of an invalid pub from the RADIUS server.

Recommended Action Examine the RADIUS pub and configure a correct one.

Error Message `DOT1X-5-ERR_PROTO_TUNNELLING:Dot1x can not be enabled on protocol tunnelling enabled ports.`

Explanation 802.1X cannot be enabled on the protocol tunneling-enabled port. This condition is caused by trying to set 802.1X port control to **auto** or **force-unauthorized** (**force_unauth**) mode on a protocol tunneling-enabled port, which is not allowed.

Recommended Action Disable protocol tunneling on the interface, and then enable 802.1X.

Error Message `DOT1X-5-ERR_PVLAN_EQ_VVLAN: Dot1x can not be enabled on a port with Access VLAN equal to Voice VLAN.`

Explanation The switch cannot enable 802.1X on the interface that uses the same VLAN number for the access VLAN and the voice VLAN. This condition was caused by trying to set 802.1X port-control to **auto** or **force-unauthorized** (**force_unauth**) mode on a voice VLAN that uses the same VLAN as the access VLAN, which is not allowed.

Recommended Action Change the voice VLAN or access VLAN on the interface, and retry the 802.1X operation.

Error Message `DOT1X-5-ERR_PVLAN_TRUNK:Dot1x can not be enabled on private VLAN trunk ports.`

Explanation 802.1X cannot coexist with private VLAN trunking on the same port.

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

Error Message `DOT1X-5-ERR_RADIUSVLAN_EQ_VVLAN: RADIUS attempted to assign a VLAN to Dot1x port [char] whose Voice VLAN is same as Access Vlan`

Explanation The RADIUS server attempted to assign a VLAN to a supplicant on an interface whose voice VLAN settings are identical to the access VLAN settings.

Recommended Action Update the RADIUS configuration so that the access VLAN settings are not identical to the voice VLAN settings for this interface.

Error Message `DOT1X-5-ERR_RSPAN_VLAN:Dot1x can not be enabled on ports configured in Remote SPAN vlan.`

Explanation 802.1X cannot be enabled on the remote SPAN VLAN port. This condition is caused by trying to set 802.1X port control to **auto** or **force-unauthorized** (**force_unauth**) mode on a port that is in the remote SPAN VLAN, which is not allowed.

Recommended Action Disable **remove span** on the VLAN, and then enable 802.1X.

Error Message `DOT1X-5-ERR_SPANDST: Dot1x can not be enabled on [char]. It is configured as a SPAN Dest port.`

Explanation The switch was not able to configure Dot1x on a given port because Dot1x and SPAN destination ports are mutually exclusive features.

Recommended Action Disable the SPAN destination port configuration the reconfigure Dot1x on the port.

Error Message `DOT1X-5-ERR_TRUNK: Dot1x can not be enabled on Trunk port`

Explanation Because this port is a trunk port **dot1x port-control** cannot enter enable state with **auto** mode (or disable state with **force-authorized** mode).

Recommended Action Disable trunking on the interface, and then enable 802.1X.

Error Message `DOT1X-5-ERR_TUNNEL:Dot1x can not be enabled on 802.1q tunnelling enabled ports`

Explanation 802.1X cannot be enabled on the dot1q tunneling-enabled port. This condition is caused by trying to set 802.1X port control to **auto** or **force-unauthorized** (**force_unauth**) mode on a 802.1Q tunnel-enabled port, which is not allowed.

Recommended Action Disable 802.1Q tunneling on the interface, and then enable 802.1X.

Error Message `DOT1X-5-ERR_VLAN_INTERNAL: The VLAN [dec] is being used internally and cannot be assigned for use on the Dot1x port [char] Vlan`

Explanation The VLAN is used internally and cannot be assigned on this port.

Recommended Action Update the configuration so that this VLAN is not used.

Error Message `DOT1X-5-ERR_VLAN_INVALID: The VLAN [dec] is invalid and cannot be assigned for use on the Dot1x port [char]`

Explanation The VLAN specified is out of range and cannot be assigned on this port.

Recommended Action Update the configuration to use a valid VLAN.

Error Message `DOT1X-5-ERR_VLAN_NOT_ASSIGNABLE: Port [char] cannot be authenticated into VLAN [dec]`

Explanation Dot1x attempted to authenticate a port into a VLAN that is incompatible with the port type, such as a regular VLAN to a PVLAN host port, a private VLAN to an access port, or any VLAN to a routed or PVLAN promiscuous port. This can also occur when a PVLAN port has an incomplete local configuration on the switch.

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

Error Message `DOT1X-5-ERR_VLAN_NOT_FOUND: RADIUS tried to assign non-existent VLAN name [char] to dot1x port`

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

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

Error Message `DOT1X-5-ERR_VLAN_RESERVED: The VLAN [dec] is a reserved vlan and cannot be assigned for use on the Dot1x port [char] Vlan`

Explanation The specified VLAN is a reserved VLAN and cannot be assigned for use on this port.

Recommended Action Update the configuration so that this VLAN is not used.

Error Message `DOT1X-5-ERR_VLAN_RSPAN_CONFIGURED: VLAN [dec] is configured as a Remote SPAN VLAN`

Explanation Remote SPAN should not be enabled on a VLAN in which ports are configured with 802.1X enabled.

Recommended Action Either disable remote SPAN configuration on the VLAN, or disable 802.1X on all the ports in this VLAN.

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-NOT_DOT1X_CAPABLE: Dot1x disabled on interface [char] because it is not an Ethernet interface`

Explanation The user attempted to configure 802.1X on a non-supported interface. 802.1X can be enabled on Ethernet module interfaces only.

Recommended Action Enable 802.1X authentication on Ethernet interfaces only.

Error Message `DOT1X-5-SECURITY_VIOLATION: Security violation on interface [char] in single-host mode. Authorized MAC address was [mac-addr]`

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

Recommended Action Ensure that the port is configured to use only one host. Enter 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-CANTALLOCATEIGMPGROUPENTRY: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-CANTALLOCATEVLANGROUPENTRY: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_ALLOCATE_AGGREGATOR: Aggregator limit reached`

Explanation A new aggregator cannot be allocated in the group.

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

Error Message `EC-5-CANNOT_BUNDLE1:Port-channel [char] is admin-down`

Explanation The 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-DONTBNDL: [char] suspended: incompatible partner port with [char]`

Explanation The configuration of the partner 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 partner port are the same as the other ports in the bundle.

Recommended Action Ensure that the configuration of the partner 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-L3DONTBNDL1:[char] suspended: PAgP not enabled on the remote port.`

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

Recommended Action Enable PAgP on the remote side.

Error Message `EC-5-L3DONTBNDL2: [char] suspended: LACP currently not enabled on the remote port.`

Explanation LACP is enabled on a Layer 3 interface, but the partner 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.

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-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-QOSFEATUREOUTOFSWRESOURCES: 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) message.

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.

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-4

Error Message `C4K_HWPORTMAN-4-BLOCKEDTXQUEUE:Blocked transmit queue HwTxQId[dec] on [char], count=[dec]`

Explanation A transmit queue on a port is blocked for reasons other than “paused.” Bad hardware could cause this problem.

Recommended Action Contact your technical support representative.

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-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.

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.

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.

ILCPROTOCOLERROR Message

This section contains the ILC Protocol (ILCPROTOCOLERROR) message.

Error Message `C4K_ILC-3-PROTOCOLERROR: Service Module failed S2W protocol, error [dec], state [dec]`

Explanation The Serial 2-Wire (S2W) communication with an intelligent line card deviated from the defined protocol.

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

IP Message

This section contains the IP message.

Error Message `IP-3-LOOPPAK: Looping packet detected and dropped src=[IP_address], dst=[IP_address],hl=[int], tl=[int], prot=[int], port=[int], dport=[int] in=[chars], nexthop=[IP_address], out=[chars] options=[chars]`

Explanation A looping packet was detected. A very common cause is a misconfiguration of an IP helper address. The helper address should be the same address as that of the server of the intended service. Putting the address of the router in the helper address causes a routing loop to be created.

Recommended Action To resolve this issue, analyze the source and destination address of the looped packets. Verify that the configuration of IP helper addresses in the switch correctly point to the right device (for example the DHCP server, the DNS server, or WINS server).

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-MOLACLALLOCFAILURE: Mol Acl Allocation for [char] is failed`

Explanation A new MOL ACL was created but there was insufficient memory for a MOL ACL. The ACL was not applied.

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-MOLACLFEATUREALLOCFAILURE: Mol AclFeature Allocation for Mol Acl: [dec] is failed`

Explanation A new MOL ACL was created but there was insufficient memory for a MOL ACL. The ACL was not applied.

Recommended Action Remove all configurations where the MOL ACL is used as an IP ACL before configuring a MOL 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.

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.

IOSDHCPSNOOPMAN Messages

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

Error Message `C4K_IOSDHCPSNOOPMAN-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_IOSDHCPSNOOPMAN-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 fully 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-GBICINSERTED: Slot= [dec] Port= [dec]:  GBIC has been inserted`

Explanation An approved-vendor GBIC or SFP was inserted.

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

Error Message `C4K_IOSINTF-5-GBICREMOVED: Slot= [dec] Port= [dec]: GBIC has been removed`

Explanation An approved-vendor GBIC or SFP was removed.

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

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-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] ' 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.

IOSMODPORTMAN Messages

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

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-CRITICALTEMP: Chassis temperature is at or over critical threshold - current temp: [dec]C, critical threshold: [dec]C`

Explanation The chassis temperature is above a critical threshold. If some action is not taken immediately to cool the chassis, the system shuts down to prevent damage to the hardware.

Recommended Action Remove one or more modules to reduce the temperature of the chassis, and check if the fan tray is functional.

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 you technical support representative.

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-FANTRAYINSERTEDDETAILED: 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-FATALERRORCRASH: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-OUTOFPACKETHEADERS: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-CANTALLOCATEIPETHERADDRENTRY: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-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-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.

Error Message `C4K_L2MAN-7-ROUTERMACADDRESSRXASSOURCE: Packet received with my own MAC address ( [mac-addr] ) as source on port [char] in vlan [dec]`

Explanation A packet was received with the switch's MAC address as the source address. This MAC was not learned as a valid source address, which suggests that there is a configuration problem. This message is rate-limited and is displayed only for the first such packet received on any interface or VLAN. Subsequent messages will display a cumulative count of all such packets received in a given interval on all interfaces in any VLAN. This usually signifies a loop in your configuration. This problem can occur in three conditions; L1 loop, L2 loop, or a host with a bogus MAC address is connected to the switch.

Recommended Action For L1 loop, verify that the physical connection on the port appears in the syslog message to see if there is a loopback connection. Also use the **show cdp neighbor** command to see if the switch is seeing itself.

For L2 loop, first use the **show spanning-tree interface** <*intf*> command to make sure spanning tree is running for that port. Then use the **show spanning-tree vlan** <*vlan-id*> command to make sure the VLAN appears in the syslog on all related switches and confirm that the reported information (including Bridge ID, blocking ports, port priority, etc) is correct across all the switches in the topology. If the STP protocol appears to be working, then capture traffic on the blocking ports to see if it sends traffic. If yes, please contact your technical support representative.

For the third case, determine whether the connected host has its MAC address manually configured to the value of the switch which shows the syslog message.

L3HWFORWARDING Messages

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

L3HWFORWADING-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-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-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-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-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.

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-SUCCEEDEDTOLOADVRFROUTINGTABLETOFWDCAM: 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.

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.

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.

LINECARDMGMTPROTOCOL 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-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 A n 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 Subport [dec] TxQId [dec] PDD {[dec], [dec]}`

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

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

PKTPROCESSING-4

Error Message `C4K_PKTPROCESSING-4-ERRORPACKET:[char]`

Explanation The software is unable to process a packet; the packets have been forwarded to the CPU instead and the packet will be dropped.

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.

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.

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.

PM Messages

This section contains the Port Manager (PM) messages.

PM-2

Error Message `PM-2-LOW_SP_MEM: Switch process available memory is less than [dec] bytes`

Explanation The 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-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 that 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 *dec*th 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 *dec*th 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.

REDUNDANCY Messages

This section contains the supervisor engine redundancy (REDUNDANCY) messages.

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-CONFIG_VERIFICATION_ERROR: The Active supervisor has previously detected a config sync  verification error (error code [dec]).`

Explanation When this message appears the system cannot work in SSO mode so it sets the system redundancy mode as RPR. For proper operation of SSO redundancy, the configuration running in the active supervisor engine and standby supervisor engine must be the same. Here we have detected at least one command unsupported or failing on the standby supervisor engine during the running configuration bulk sync. In this condition SSO redundancy operations are not guaranteed.

Recommended Action Please check the full list of failures using the **show issu config-sync failures** command. Remove from the configuration the commands that are causing the bulk sync configuration failure.

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.

S2W Messages

This section contains the Calendar (SERVICECARDMAN) 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.

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-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, reenable the interface by entering the **no shutdown** command in interface configuration mode.

Error Message `SPANTREE-2-BLOCK_PVID_LOCAL: Blocking [char] on [char]. Inconsistent local vlan.`

Explanation The spanning tree port 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/no shutdown** command on the associated port-channel interface.

Error Message `SPANTREE-2-LOOPGUARD_BLOCK: Loop guard blocking port [char] on [char].`

Explanation The spanning tree message age timer 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]: Inconsitent [char] PVST BPDU received on VLAN [dec]`

Explanation When a PVST+ switch is connected to an MST switch, the CIST (MSTOO) 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, reenable 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.

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-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-NETFLOWCARDSEEPROMUNKNOWNTYPE: 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 errdisabled 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 errdisabled 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 errdisabled 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]; aloocated: [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_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.

SWITCHINGENGINEMAN Messages

This section contains the switching engine management (SWITCHINGENGINEMAN) messages.

SWITCHINGENGINEMAN-2

Error Message `C4K_SWITCHINGENGINEMAN-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 Reseat the supervisor engine. 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.

SWITCHINGENGINEMAN-3

Error Message `C4K_SWITCHINGENGINEMAN-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-BADLENGTH:Recived 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-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-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 Reseat the supervisor engine. 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.

SWITCHINGENGINEMAN-4

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.

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 switching modules (WS-X4248-RJ45V, WS-X4248-RJ21V, WS-X4548-RJ45V, WS-X4224-RJ45V or WS-X4524-RJ45V), reseat the switching module.

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-LINECARDDIAGSFAILED: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-LINECARDDIAGSPARTIALFAILURE: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 seeprom 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 inserted is incompatible 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.

VQPCLIENT Messages

This section contains VLAN Query Protocol (VQP) Client messages.

VQPCLIENT-2

Error Message `VQPCLIENT-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 `VQPCLIENT-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 `VQPCLIENT-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 `VQPCLIENT-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 `VQPCLIENT-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 `VQPCLIENT-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 `VQPCLIENT-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.

VQPCLIENT-3

Error Message `VQPCLIENT-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 `VQPCLIENT-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 `VQPCLIENT-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.

VQPCLIENT-7

Error Message `VQPCLIENT-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.