Message and Recovery Procedures

This chapter describes the switch system messages in alphabetical order by facility. Within each facility, the messages are listed by severity levels 0 to 7: 0 is the highest severity level, and 7 is the lowest severity level. Each message is followed by an explanation and a recommended action.

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

CMP Messages

This section contains the Cluster Membership Protocol (CMP) messages.

Error Message `CMP-5-ADD: The Device is added to the cluster (Cluster Name:[chars], CMDR IP Address [inet]).`

Explanation This message means that the device is added to the cluster. [chars] is the cluster name, and [inet] is the Internet address of the command switch.

Recommended Action No action is required.

Error Message `CMP-5-MEMBER_CONFIG_UPDATE: Received member configuration from member [dec].`

Explanation This message means that the active or standby command switch received a member configuration. [dec] is the member number of the sender.

Recommended Action No action is required.

Error Message `CMP-5-MGMT_VLAN_CHNG: The management vlan has been changed to [dec].`

Explanation This message means that the management VLAN has changed. [dec] is the new management VLAN number.

Recommended Action No action is required.

Error Message `CMP-5-REMOVE: The Device is removed from the cluster (Cluster Name:[chars]).`

Explanation This message means that the device is removed from the cluster. [chars] is the cluster name.

Recommended Action No action is required.

DOT1Q_TUNNELLING Messages

This section contains the 802.1Q tunneling message. An incorrect maximum transmission unit (MTU) setting causes these message.

Error Message `DOT1Q_TUNNELLING-4-MTU_WARNING: System MTU of [dec] might be insufficient for 802.1Q tunnelling. 802.1Q tunnelling requires system MTU size of [dec] to handle maximum size ethernet frames.`

Explanation This message means that the switch MTU setting might not be sufficient for 802.1Q tunneling. The MTU needs to include the four-byte overhead associated with the additional 802.1Q tag. The first [dec] is the current system MTU setting in bytes, and the second [dec] is the required MTU size in bytes.

Recommended Action Adjust the system MTU for the additional 802.1Q tag by using the **system mtu** global configuration command, and reload the switch by using the **reload** privileged EXEC command.

DOT1X Messages

This section contains the 802.1X authorization messages.

Error Message `DOT1X-3-ROUTEDPORT: Received vlan id ([dec]) from RADIUS for routed port [chars].`

Explanation This message means that during 802.1X authorization, the RADIUS server provided a VLAN ID for a routed port.

Recommended Action Remove the VLAN ID in the RADIUS configuration, or configure the port as an access port.

Error Message `DOT1X-3-VLANINVALID: Received invalid vlan ([dec]) from RADIUS for [chars].`

Explanation This message means that during 802.1X authorization, the RADIUS server provided a VLAN ID that is not configured on the switch.

Recommended Action Change the VLAN ID in the RADIUS configuration, or configure the VLAN on the switch.

Error Message `DOT1X-3-VLANMALFORMED: Received malformed vlan from RADIUS for [chars].`

Explanation This message means that during 802.1X authorization, the RADIUS server provided an invalid VLAN ID.

Recommended Action Correct the VLAN ID in the RADIUS configuration.

Error Message `DOT1X-3-VOICEVLAN: Received voice vlan ([dec]) from RADIUS for [chars].`

Explanation This message means that during 802.1X authorization, the RADIUS server provided a VLAN ID that conflicts with the voice VLAN ID on the port.

Recommended Action Change the VLAN ID in the RADIUS configuration, or change the voice VLAN on the switch port.

DTP Messages

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

Error Message `DTP-4-MEM_UNAVAIL: Memory was not available to perform the trunk negotiation action.`

Explanation This message means that the system is unable to negotiate trunks because of a lack of memory.

Recommended Action Reduce other system activity to ease the memory demands.

Error Message `DTP-4-TMRERR: An internal timer error occurred when trunking on interface [chars].`

Explanation This message means that a timer used by the trunking protocol unexpectedly expired. [chars] is the trunked interface.

Recommended Action This error is internally corrected, and no long-term ramifications exist. However, if more problems with trunking occur, reload the switch by using the **reload** privileged EXEC command.

Error Message `DTP-4-UNKN_ERR: An unknown operational error occurred.`

Explanation This message means that the system is unable to negotiate trunks because an internal operation generated an unexpected error.

Recommended Action Reload the switch by using the **reload** privileged EXEC command.

Error Message `DTP-5-ILGLCFG: Illegal config (on, isl--on, dot1q) on [chars].`

Explanation This message means that one end of the trunk is configured as ON, ISL, and the other end is configured as ON, 802.1Q. [chars] is the interface.

Recommended Action This configuration is illegal and will not establish a trunk between two switches. You must change the encapsulation type so that both ends of the trunk match.

Error Message `DTP-5-NONTRUNKPORTON: Port [chars] has become non-trunk.`

Explanation This message means that the interface changed from trunk to access. [chars] is the interface that changed.

Recommended Action This message is provided for information only.

Error Message `DTP-5-TRUNKPORTCHG: Port [chars] has changed from [chars] trunk to [chars] trunk.`

Explanation This message means that the encapsulation type of the trunk has changed. The first [chars] is the interface, the second [chars] is the original encapsulation type, and the third [chars] is the new encapsulation type.

Recommended Action This message is provided for information only.

Error Message `DTP-5-TRUNKPORTON: Port [chars] has become [chars] trunk.`

Explanation This message means that the interface changed from an access to a trunk. The first [chars] is the interface, and the second [chars] is the encapsulation.

Recommended Action This message is provided for information only.

EC Messages

This section contains the EtherChannel, Link Aggregation Control Protocol (LACP), and Port Aggregation Protocol (PAgP) messages.

Error Message `EC-4-NOMEM: Not enough memory available for [chars].`

Explanation This message means that either the LACP or the PAgP EtherChannel could not obtain the memory it needed to initialize the required data structures. [chars] is the name of the data structure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `EC-5-BUNDLE: Interface [chars] joined port-channel [chars].`

Explanation This message means that the listed interface joined the specified EtherChannel. The first [chars] is the physical interface, which can be a switch port or a routed port, and the second [chars] is the EtherChannel interface.

Recommended Action No action is required.

Error Message `EC-5-CANNOT_BUNDLE_LACP: [chars] is not compatible with aggregators in channel [dec] and cannot attach to them ([chars]).`

Explanation This message means that the port has port attributes that are different from the port channel or ports within the port channel.

Recommended Action Change the port attributes so that they match the other ports in the EtherChannel.

Error Message `EC-5-CANNOT_BUNDLE1: Port-channel [chars] is admin-down, port [chars] will remain stand-alone.`

Explanation This message means that the EtherChannel is administratively shut down. The first [chars] is the EtherChannel interface, and the second [chars] is the physical interface, which can be a switch port or a routed port.

Recommended Action Enable the EtherChannel by using the **no shutdown** interface configuration command.

Error Message `EC-5-CANNOT_BUNDLE2: [chars] is not compatible with [chars] and will be suspended ([chars]).`

Explanation This message means that the interface has different interface attributes than other ports in the EtherChannel. For the interface to join the bundle (EtherChannel), change the interface attributes to match the EtherChannel attributes. The first [chars] is the interface to be bundled, the second [chars] is the physical interface (a switch port or a routed port) that is already in the bundle, and the third [chars] is the reason for the incompatibility.

Recommended Action Change the interface attributes to match the EtherChannel attributes.

Error Message `%EC-5-ERRPROT: Channel protocol mismatch for interface [chars] in group [dec]: the interface cannot be added to the channel group.`

Explanation This message means that the interface cannot be added to the channel group by using the specified mode.

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

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

Explanation This message means that the interface cannot be selected for the specified protocol because it is already part of an EtherChannel group with a different protocol enabled.

Recommended Action Remove the interface from the EtherChannel group.

Error Message `%EC-5-ERRPROT3: Command rejected: the interface [chars] is already part of a channel.`

Explanation This message means that the interface cannot be unselected for the specified protocol because it is already part of an EtherChannel group.

Recommended Action Remove the interface from the EtherChannel group.

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

Explanation This message means that PAgP is enabled on the Layer 3 interface, but the partner port is not enabled for PAgP. In this mode, the port is placed in a suspended state. [chars] is the Layer 3 interface.

Recommended Action Enable PAgP on the remote side by using the **channel-group** interface configuration command.

Error Message `EC-5-L3DONTBNDL2: [chars] suspended: incompatible partner port with [chars].`

Explanation This message means that an interface cannot join an EtherChannel group because the local group capability and the partner group capability must be the same as that of the interfaces in the group. In this case, the ports in the partner's bundle (EtherChannel) do not all have the same group capability. [chars] is the physical interface, which can be a switch port a routed port.

Recommended Action Ensure that the partner group capability is the same for all the ports in the group.

Error Message `%EC-5-L3DONTBNDL3: [chars] suspended: LACP not enabled on the remote port.`

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

Recommended Action Enable LACP on the remote port.

Error Message `EC-5-L3PORTDOWN: Shutting down [chars] as its port-channel is admin-down.`

Explanation This message means that the Layer 3 port administrative state is controlled by the administrative state of its EtherChannel. If the EtherChannel administrative state is down, the port administrative state is also forced to be down. [chars] is the Layer 3 interface.

Recommended Action Enable the aggregate port administrative-state by entering the **no shutdown** interface configuration command on the aggregation interface.

Error Message `EC-5-L3STAYDOWN: [chars] will remain down as its port-channel [chars] is admin-down.`

Explanation This message means that on Layer 3 interfaces and aggregation interfaces, the administrative state of the aggregation interface overrides the administrative status of the Layer 3 interface. If the aggregation interface is administratively down, all interfaces in the aggregation interface are forced to be down. [chars] is the Layer 3 interface.

Recommended Action Enter the **no shutdown** interface configuration command on the aggregation interface.

Error Message `%EC-5-NOLACP: Invalid EC mode. LACP not enabled.`

Explanation This message means that LACP is not included in the image on your switch. An EtherChannel cannot be set into any LACP mode.

Recommended Action Upgrade your switch with an image that supports LACP.

Error Message `EC-5-NOPAGP: Invalid EC mode. PAgP not enabled.`

Explanation This message means that PAgP is not included in the IOS image and that the EtherChannel mode cannot be set to **desirable** or **auto**.

Recommended Action Obtain an image with PAgP included, or set the mode to **on** by using the **channel-group** *channel-group-number* **mode on** interface configuration command.

Error Message `%EC-5-STAYDOWN: no-shut not allowed on [chars]. Module [dec] not online.`

Explanation This message means that an interface with an EtherChannel configuration cannot be enabled by using the **no shut** interface configuration command. It is a member of an EtherChannel group, and that EtherChannel group has been administratively shut down. The interface has an EtherChannel configuration, but no information is available yet about its port channel.

Recommended Action No action is required. Wait until the module is online to determine the port-channel setting of the EtherChannel.

Error Message `EC-5-UNBUNDLE: Interface [chars] left the port-channel [chars].`

Explanation This message means that the listed interface left the specified EtherChannel. The first [chars] is the physical interface, which can be a switch port or a routed port, and the second [chars] is the EtherChannel.

Recommended Action No action is required.

Error Message `EC-5-UNSUITABLE: [chars] will not join any port-channel, [chars].`

Explanation This message means that one of the interfaces cannot join the EtherChannel because it is configured for PortFast, as a VLAN Membership Policy Server (VMPS), for 802.1X, as a voice VLAN, or as a Switched Port Analyzer (SPAN) destination port. All of these are unsuitable configurations for EtherChannels. The first [chars] is the interface name, and the second [chars] describes the details of the unsuitable configuration.

Recommended Action Reconfigure the port; remove the unsuitable configuration.

ENVIRONMENT Messages

This section contains the Environment messages.

Error Message `ENVIRONMENT-2-FAN_FAULT:System Fault:FAN FAULT is detected.`

Explanation This message means that an internal fan fault is detected.

Recommended Action Check the switch itself, or use the **show env** privileged EXEC command to check if one or more fans on the switch have failed. Replace the switch at your convenience.

Error Message `ENVIRONMENT-2-OVER_TEMP:System Fault:OVER TEMPERATURE condition is detected.`

Explanation This message means that an overtemperature condition is detected.

Recommended Action Use the **show env** privileged EXEC command to check if an overtemperature condition exists. If an overtemperature condition does exist, place the switch in an environment that is within 32 to 113°F (0 to 45°C), and make sure that the fan intake and exhaust areas are clear.

Note If a multiple-fan failure is causing the switch to overheat, replace the switch.

ETHCNTR Messages

This section contains the Ethernet controller messages. These messages are a result of a failure of the switch software when trying to program the hardware. Most of these errors lead to incorrect switch behavior, and you should call your Cisco technical support representative.

Error Message `ETHCNTR-3-FLOWCONTROL_DUPLEX_ERROR: Flowcontrol will not take effect until duplex is set to auto.`

Explanation This message means that flow control cannot be set on the switch in this configuration.

Recommended Action Configure duplex mode to auto.

Error Message `ETHCNTR-3-HALF_DUX_COLISION_EXCEED_THRESHOLD: Collision at [chars] exceed threshold. Consider as loop-back.`

Explanation This message means that the collision at a half-duplex port exceeded the threshold and that the port is considered to be in the loop-back state. [chars] is the port.

Recommended Action No action is required.

Error Message `ETHCNTR-3-INTERNAL_ERROR: Internal Error [chars].`

Explanation This message means that an internal error occurred when the software was trying to program the hardware. As a result, the switch is in an inconsistent state and might not provide the expected functions. [chars] describes the internal operation that failed.

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

Error Message `ETHCNTR-3-INVALIDMAP: Invalid map [dec] for address [enet].`

Explanation This message means that an attempt to bridge a packet in software obtained an invalid result. [dec] is the map number, and [enet] is the Ethernet address.

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

Error Message `ETHCNTR-3-LOOP_BACK_DETECTED:, Loop-back detected on [chars]. The port is forced to linkdown.`

Explanation This message means that the loop-back condition might be caused by a balun cable being accidentally plugged into the port. [chars] is the port.

Recommended Action Check the cables. If a balun cable is connected and the loopback condition is desired, no action is required. Otherwise, connect the correct cable, and bring the port up by entering the **no shutdown** interface configuration command.

Error Message `ETHCNTR-3-RA_ALLOC_ERROR:RAM Access [chars] [chars] memory allocation failure.`

Explanation This message means that a request to read or write the RAM access failed its memory allocation. The first [chars] is the RAM access command that failed, and the second [chars] describes whether processor memory allocation or I/O memory allocation failed.

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

Error Message `ETHCNTR-3-RA_REPLY_ERROR: Invalid reply to RAM Access [chars] request ([hex]) from satellite [dec].`

Explanation This message means that a request to read or write the satellite RAM produced an unexpected reply. [chars] is the request type (*read* or *write*), [hex] is the address, and [dec] is the satellite number.

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

Error Message `ETHCNTR-3-UNEXPECTED_EVENT: Request [hex] encountered event [dec] in state [dec].`

Explanation This message means that an unexpected event occurred during a RAM-access request. [hex] is a request identifier. The first [dec] is an event number, and the second [dec] is a state number.

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

FM Messages

This section contains the feature manager messages. The feature manager software module manages access control lists (ACLs). Most messages in this section are the result of a switch memory shortage, which includes hardware memory such as the ternary content addressable memory (TCAM) and label space versus CPU memory. Both kinds of memory shortages are described.

Error Message `FM-1-INIT: Feature Manager subsystem initialization failure.`

Explanation This message means that the feature manager subsystem failed to initialize. The most likely cause is insufficient memory at initialization. Either the hardware has failed, or the wrong IOS image is installed.

Recommended Action Replace the failing hardware, or obtain the correct IOS image for this platform.

Error Message `FM-2-NOMAP: Cannot create Feature Manager data structures for VLAN Map [chars].`

Explanation This message means that the feature manager could not allocate the data structures needed to describe a VLAN map in a form that can be loaded into hardware. This error is probably caused by a lack of free memory. [chars] is the VLAN map name.

Recommended Action Reduce other system activity to ease the memory demands.

Error Message `FM-2-NOSB: Cannot create subblock for interface [chars].`

Explanation This message means that the feature manager was unable to save per-interface information needed for its correct operation. Some per-interface features, such as access groups or VLAN maps, will not be correctly configured. [chars] is the interface name.

Recommended Action Use a less complicated configuration that requires less memory.

Error Message `FM-2-NOVLB: Cannot create memory block for VLAN [dec].`

Explanation This message means that the feature manager was unable to save per-VLAN information needed for its correct operation. Some per-interface features, such as access groups or VLAN maps, will not be correctly configured. [dec] is the VLAN number.

Recommended Action Use a less complicated configuration that requires less memory.

Error Message `FM-2-NOVMR: Cannot create VMR data structures for access list [chars].`

Explanation This message means that the feature manager could not allocate the data structures needed to describe an ACL in a form that can be loaded into hardware. This error is probably caused by a lack of available CPU DRAM. [chars] is the access-list name.

Recommended Action Use a less complicated configuration that requires less memory.

Error Message `FM-3-AUGMENTFAIL: Augmenting of access-map [chars] on [chars] label [dec] failed.`

Explanation This message means that the system ran out of CPU memory when attempting to merge internally required elements with the configured access maps. The first [chars] is the access-map name, the second [chars] is the direction in which the map was applied (*input* or *output*), and [dec] is the label number.

Recommended Action Reduce other system activity to ease the memory demands.

Error Message `FM-3-CONFLICT: [chars] [chars] conflicts with [chars].`

Explanation This message means that port access lists (PACLs) cannot be applied when input router access lists, VLAN maps, or IP multicast boundaries have been applied, and vice versa. [chars] are the names of the conflicting features.

Recommended Action Remove the conflicting feature or features, and apply the configuration again.

Error Message `FM-3-GOTLABEL: Got label for [chars].`

Explanation This message means that the feature manager is able to allocate a hardware label for the interface. The interface needed a label before, but no label was available. [chars] is the label.

Recommended Action No action is required. (This message pairs with the FM-3-NOLABEL message and means that the previous error condition has rectified itself.)

Error Message `FM-3-GOTVLABEL: Got label for VLAN [dec].`

Explanation This message means that the feature manager is able to allocate a hardware label for the VLAN. The VLAN needed a label before, but no label was available. [dec] is the VLAN number.

Recommended Action No action is required. (This message pairs with the FM-3-NOLABELVL message and means that the previous error condition has rectified itself.)

Error Message `FM-3-ILLEGALCOPY: Illegal copy of [chars] access group [chars] from [chars] label [dec] to [dec].`

Explanation This message means that an internal software error occurred. The first [chars] is either *ip* or *mac*, the second [chars] is an access list name, the third [chars] is either *port* or *vlan*, and the two [dec] values are label numbers.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show running-config** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show running-config** display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-3-INITLABEL: Special initialization of label [dec] failed.`

Explanation This message means that the initialization of the access list hardware failed. Prioritization of routing protocol packets above other kinds of packets might not occur on some VLANs or routed ports. [dec] is the label number.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-3-INSERTFAIL: Insert of access-map [chars] [dec] into [chars] label [dec] failed.`

Explanation This message means that the system ran out of CPU memory when trying to merge sections of an access map. The first [chars] is the map name, and the second [chars] is the direction in which the map was applied. The first [dec] is the entry number, and the second [dec] is the label number.

Recommended Action Reduce other system activity to ease the memory demands. For example, remove any ACLs that have been defined but are not now used. Use simpler ACLs with fewer access control entries (ACEs). Use fewer VLANs, and remove any unneeded VLANs from the VLAN database.

Error Message `FM-3-INTTABLE: Not in truth table: VLMAP [dec] RACL [dec] Rtprot [dec] Redir [dec] Mcb [dec] Feat [dec].`

Explanation This message means that an unrecoverable software error occurred while the software was trying to merge the configured input features. The first five [dec] values are internal code numbers for the results of the VLAN map, router ACL, routing protocol selector, IP redirect settings, and the multicast boundary configured on a Layer 3 interface. The sixth [dec] value is the feature that was being examined when the problem was detected.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show running-config** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show running-config** display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-3-LABELERROR: Incorrect label to [chars] vlan label attribute copy callback srclabel [dec], dstlabel [dec].`

Explanation This message means that the feature manager attribute copy callback was called with an incorrect source or destination label. [chars] is the direction (*input* or *output*), the first [dec] is the source label value, and the second [dec] is the destination label value.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show running-config** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show running-config** display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-3-MAXRECURSION: Too many ([dec]) levels of recursion while merging [chars] (code [dec]).`

Explanation This message means that the configuration is too complicated for the platform-specific ACL merge code to support. The most likely cause is too many separate access lists in a single VLAN map or policy map. The first [dec] is the number of levels of recursion. [chars] describes which stage of the merge encountered the problem; the stage can be one of these: VLAN map, Global Input, Global Output, or QoS Map. The second [dec] is an internal code number of the merge stage that encountered the problem.

Recommended Action Reduce the number IP or MAC access lists (counted separately) in any one VLAN or policy map to fewer than the number of levels reported by this log message.

Error Message `FM-3-MERGEFAIL: [chars] ACL merge error [dec] ([chars]) on [chars] label [dec].`

Explanation This message means that the feature manager was unable to merge the configured features into a form suitable for loading into the hardware. Packets potentially affected by this feature are sent to the CPU for processing. The CPU processing needed to uphold the overflowed ACL severely degrades performance. The first [chars] is the ACL-type error (*ip* or *mac*), the first [dec] is the error code, the second [chars] is the message string for the preceding error code, the second [dec] is the label number, and the third [chars] is either *input* or *output*.

Recommended Action Reorganize the ACLs so that all entries fit into hardware. Use less complicated and fewer ACLs.

Error Message `FM-3-NOLABEL: Cannot allocate [chars] label for interface [chars].`

Explanation This message means that the feature manager was unable to allocate a label for the features on this interface. This means that the hardware cannot be programmed to implement the features, and packets for this interface will be filtered in software. There is a limit of 256 labels per direction. The first [chars] is the direction (*input* or *output*); the second [chars] is the interface name.

Recommended Action Allocate more space to the relevant section of the TCAM by using the **sdm prefer** global configuration command and reboot the switch, or use a simpler configuration. Use the same ACLs on multiple interfaces, if possible.

Error Message `FM-3-NOLABELVL: Cannot allocate [chars] label for VLAN [dec].`

Explanation This message means that the feature manager was unable to allocate a label for the features on this VLAN. This means that the hardware cannot be programmed to implement the features, and packets on this VLAN will be filtered in software. There is a limit of 256 labels per direction. [chars] is the direction (*input* or *output*), and [dec] is the VLAN number.

Recommended Action Allocate more space to the relevant section of the TCAM by using the **sdm prefer** global configuration command and reboot the switch, or use a simpler configuration. Use the same VLAN map on multiple VLANs, if possible.

Error Message `FM-3-NOTEMPTY: Illegal copy of attribute to non empty [chars] vlan label [dec].`

Explanation This message means that the feature manager attribute copy callback was called with a destination label already being used by a VLAN or routed port. [chars] is the direction (*input* or *output*), and [dec] is the label value.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show running-config** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show running-config** display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-3-NOTOBJECT: Invalid object (VLAN [dec], IDB [hex]) used in Feature Manager operation.`

Explanation This message means that an internal software error has occurred. An invalid combination of VLAN and interface descriptor block (IDB) values were passed to a software routine. [dec] is the VLAN number, and [hex] is the IDB value.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show running-config** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show running-config** display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-3-NULLCPU: Sending traffic on empty [chars] label [dec] to CPU.`

Explanation This message means that an internal software error occurred. [chars] is the direction (*input* or *output*), and [dec] is the label number.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-3-OUTTTABLE: Not in truth table: RACL [dec] VLMAP [dec].`

Explanation This message means that an unrecoverable software error occurred while trying to merge the configured output features. The two [dec] values are internal code numbers for the results of the router ACL and VLAN map configured on a particular Layer 3 interface.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show running-config** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show running-config** display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-3-QOSTTABLE: Not in truth table: ACL [dec] in map, action [dec].`

Explanation This message means that a software error occurred while trying to merge a quality of service (QoS) policy map. The first [dec] is the number in the policy map (counting from zero) of the particular ACL where the problem was discovered, and the second [dec] is an internal code number for the result of matching that ACL in the policy map.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show running-config** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show running-config** display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-3-RELOADED: Reloading [chars] label [dec] feature in [chars].`

Explanation This message means that the feature manager is now able to fit more of the configured features on this label into the hardware. One or more features had been previously unloaded because of a lack of space. The first [chars] is the direction (*input* or *output*), [dec] is the label number, and the second [chars] is the TCAM ID.

Recommended Action No action is required.

Error Message `FM-3-TOSCOST: Minimize monetary cost TOS bit unsupported in hardware, ignored.`

Explanation This message means that this hardware platform does not support filtering based on the type of service (TOS) and precedence; it supports filtering based on Differentiated Services Code Points (DSCPs). The DSCP field does not include the minimize monetary cost bit from the TOS field; the hardware ignores this bit when checking for a match to an ACE, which can lead to unintended filtering actions.

Recommended Action Design filters that do not test for the minimum monetary cost TOS.

Error Message `FM-3-UNLOADING: Unloading [chars] label [dec] feature from [chars].`

Explanation This message means that the feature manager was unable to fit the complete configuration into the hardware, so some features will be applied in software. This error prevents some or all the packets from being forwarded in hardware and requires them to be forwarded by the CPU. Multicast packets might be dropped instead of being forwarded. The first [chars] is the direction (*input* or *output*), [dec] is the label number, and the second [chars] is the TCAM ID.

Recommended Action Allocate more space to the relevant section of the TCAM by using the **sdm prefer** global configuration command and then reboot the switch, or use a simpler configuration. Use the same ACLs on multiple interfaces, if possible.

Error Message `FM-3-WRONGLABEL: Inconsistent records of label for [chars]: FM has [dec], LM has [dec].`

Explanation This message means that an internal software error has occurred. [chars] is an interface name. The rest of the message `FM has [dec], LM has [dec]` means that the feature manager has a record that the interface belongs to the first [dec], and the label manager has a record that the interface belongs to the second [dec]. Therefore, the software is in an inconsistent state.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show running-config** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show running-config** display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `FM-7-TRANSDEF: No augmentation function found for VMR.`

Explanation This message means that an internal error occurred. An ACL was not correctly interpreted. The value-mask result (VMR) is incorrect.

Recommended Action Copy the error exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

GBIC Messages

This section contains Gigabit Interface Converter (GBIC) module identification and validation messages. When a GBIC module is inserted into the switch, the software reads information from the module that identifies its type, and for some types of GBIC modules, obtains additional information to validate the compatibility of the module.

Error Message `GBIC_1000BASET-6-GBIC_1000BASET_DEFAULT_CONFIG: 1000BASE-T GBIC module is detected in [chars]. Speed and duplex will be autonegotiated.`

Explanation This message means that a 1000BASE-T GBIC module is detected in the slot, and its speed and duplex are automatically autonegotiated. [chars] is the slot in which the module is installed.

Recommended Action No action is required.

Error Message `GBIC_1000BASET-6-GBIC_1000BASET_NO_CONFIG_NEGOTIATE: Configuration ignored. 1000BASE-T GBIC modules only support autonegotiation.`

Explanation This message means that the disabling of autonegotiation is ignored. The 1000BASE-T GBIC modules support autonegotiation.

Recommended Action No action is required.

Error Message `GBIC-4-CHECK_SUM_FAILED: GBIC EEPROM data check sum failed for GBIC interface [chars].`

Explanation This message means that the GBIC module was identified as a Cisco GBIC module, but the system was unable to read vendor-data information to verify its accuracy. [chars] is the interface in which the module is installed.

Recommended Action Remove and re-insert the GBIC module. If it continues to fail after re-insertion, it might be defective.

Error Message `GBIC-4-NOREAD_VNAME: Unable to read vendor name for GBIC interface [chars].`

Explanation This message means that the GBIC module was identified as a Cisco GBIC module, but the system was unable to read the GBIC vendor name. [chars] is the interface in which the module is installed.

Recommended Action Remove and re-insert the GBIC module. If it continues to fail after re-insertion, it might be defective.

Error Message `GBIC-4-NOREAD_VSDATA: Unable to read vendor-specific data for GBIC interface [chars].`

Explanation This message means that the GBIC module was identified as a Cisco GBIC module, but the system was unable to read the identifying vendor-specific information to verify its authenticity. [chars] is the interface in which the module is installed.

Recommended Action Remove and re-insert the GBIC module. If it continues to fail after re-insertion, it might be defective.

Error Message `GBIC-4-NOREAD_VSERNUM: Unable to read serial number for GBIC interface [chars].`

Explanation This message means that the GBIC module was identified as a Cisco GBIC module, but the system was unable to read the serial number of the GBIC module. [chars] is the interface in which the module is installed.

Recommended Action Remove and re-insert the GBIC module. If it continues to fail after re-insertion, it might be defective.

Error Message `GBIC-4-UNRECOGNIZED_EXTTYPE: GBIC interface [chars] has unrecognized extended type.`

Explanation This message means that the GBIC module was identified as a Cisco GBIC module, but the system does not recognize its reported extended type code. [chars] is the interface in which the module is installed.

Recommended Action Check the list of supported GBIC modules for this version of the system software. An upgrade might be required for newer GBIC modules. Even if the module is unrecognized, it might still operate properly, perhaps with limited functionality.

Error Message `GBIC-4-XCVR_INTERR: Internal error occurred in setup for GBIC interface [chars].`

Explanation This message means that the system could not allocate resources or had some other problem during the setup for the specified GBIC interface. [chars] is the interface in which the GBIC module is installed.

Recommended Action Reload the switch by using the **reload** privileged EXEC command. If the problem persists, call your Cisco technical support representative.

Error Message `GBIC-6-SERDES_MODULE_UNKNOWN: Unrecognizable GBIC found in [chars] (module mask [hex]).`

Explanation This message means that the GBIC module presented data to the system that did not correctly identify the type of the GBIC module. The switch will handle it as a generic GBIC module. [chars] is the name of the interface in which the unknown module is installed, and [hex] is the module type value returned by the module.

Recommended Action If the GBIC module fails to become operational, carefully remove and re-insert it in the slot. If it continues to fail after re-insertion, it might be defective or incompatible with the switch.

Error Message `GBIC-6-SERDES_SERIAL_INV_DATA: Unrecognizable GBIC found in [chars] (serial data [hex]).`

Explanation This message means that the GBIC module presented data to the system that did not correctly identify the type of the GBIC module. The switch will handle it as a generic GBIC module. [chars] is the name of the interface where the unrecognizable module is found, and [hex] is the data value returned by the module.

Recommended Action If the GBIC module fails to become operational, carefully remove and re-insert it in the slot. If it continues to fail after re-insertion, it might be defective or incompatible with the switch.

GBIC_SECURITY Messages

This section contains the Cisco GBIC module security messages. The GBIC modules have a serial EEPROM that contains the serial number, security code, and cyclic redundancy check (CRC). When the GBIC module is inserted into the switch, the software reads the EEPROM to recompute the security code and CRC. The software generates an error message if the CRC is invalid or if the recomputed security code does not match the one stored in the EEPROM.

Error Message `GBIC_SECURITY-4-DUPLICATE_SN: GBIC interface [chars] has the same serial number as another GBIC interface.`

Explanation This message means that the GBIC module was identified as a Cisco GBIC module, but its serial number matches that of another interface on the system. [chars] is the interface in which the module is installed.

Recommended Action Cisco GBIC modules are assigned unique serial numbers. Verify that the module was obtained from Cisco or a supported vendor.

Error Message `GBIC_SECURITY-4-GBIC_INTERR: Internal error occurred in setup for GBIC interface [chars].`

Explanation This message means that the system could not allocate resources or had some other problem during the setup for the specified GBIC interface. [chars] is the interface in which the GBIC module is installed.

Recommended Action Reload the switch by using the **reload** privileged EXEC command. If the problem persists, call your Cisco technical support representative.

Error Message `GBIC_SECURITY-4-ID_MISMATCH: Identification check failed for GBIC interface [chars].`

Explanation This message means that the GBIC module was identified as a Cisco GBIC module, but the system was unable to verify its identity. [chars] is the interface in which the module is installed.

Recommended Action Check the list of supported GBIC modules for this version of the system software. An upgrade might be required for newer modules. Otherwise, verify that the module was obtained from Cisco or a supported vendor.

Error Message `GBIC_SECURITY-4-UNRECOGNIZED_VENDOR: GBIC interface [chars] manufactured by an unrecognized vendor.`

Explanation This message means that the GBIC module was identified as a Cisco GBIC module, but the system was unable to match its manufacturer with one of the known list of Cisco GBIC vendors. [chars] is the interface in which the module is installed.

Recommended Action Check the list of supported GBIC modules for this version of the system software. An upgrade might be required for newer modules.

Error Message `GBIC_SECURITY-4-VN_DATA_CRC_ERROR: GBIC interface [chars] has bad crc.`

Explanation This message means that the GBIC module was identified as a Cisco GBIC module, but it does not have a valid CRC in the EEPROM data. [chars] is the interface in which the module is installed.

Recommended Action Check the list of supported GBIC modules for this version of the system software. An upgrade might be required for newer modules. Even if unrecognized, the module might still operate properly, perhaps with limited functionality.

GIGASTACK Messages

This section contains the GigaStack GBIC module messages.

Error Message `GIGASTACK-1-NO_LOOP_DETECT: The link neighbor of link [dec] of GigaStack GBIC in [chars] did not respond to the loop detection request. If loop topology is deployed, make sure all switches in the stack are running the latest software.`

Explanation This message means that no acknowledgement for the loop-detection request is received from one of the links on a GigaStack GBIC module. Either the neighboring switch does not support the GigaStack GBIC loop-breaking algorithm, or the link between the two GigaStack GBIC modules is broken. Under this condition, a GigaStack loop topology is not automatically detected, and the connectivity between switches in the stack can be lost. [dec] is the link number, and [chars] is the slot number.

Recommended Action If a loop topology is used with the GigaStack GBIC module, ensure that the latest software is running on all switches in the stack. Check the GigaStack GBIC modules involved to ensure that they are functioning.

Error Message `GIGASTACK-3-INIT_FAILURE: GigaStack GBIC in [chars] initialization failed.`

Explanation This message means that the GigaStack GBIC module failed power-on self-test (POST). [chars] is the interface name.

Recommended Action Remove the GigaStack GBIC module, and re-insert it into the GBIC module slot.

Error Message `GIGASTACK-6-LOOP_BROKEN: Link loss is detected in the GigaStack loop. Link 2 of the GigaStack GBIC in [chars] is re-enabled.`

Explanation This message means that the loop formed by GigaStack GBIC modules is broken because of a link loss. Link 2 of the master loop breaker is re-enabled to replace the broken link. [chars] is the interface name.

Recommended Action No action is required.

Error Message `GIGASTACK-6-LOOP_DETECTED: GigaStack GBIC in [chars] is selected as Master Loop Breaker. Link 2 of the GigaStack GBIC is disabled to break the loop.`

Explanation This message means that a loop is detected in the stack, and this GigaStack GBIC module is selected as the master loop breaker. Link 2 of this GigaStack GBIC module is disabled to break the loop. [chars] is the interface name.

Recommended Action No action is required.

ILPOWER Messages

This section contains the inline power error messages for the Catalyst 3550-24PWR switch.

Error Message `%ILPOWER-3-ILPOWER_INTERNAL_IF_ERROR:Inline Power internal error. Interface cannot obtain asic-cnfg information.`

Explanation This message means that the inline power feature code failed for unknown reasons. A software error has probably occurred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%ILPOWER-5-ILPOWER_POWER_DENY:Interface [chars]:inline power denied`

Explanation This message means that the inline power request was denied because the switch does not have enough power left to support the request. [chars] is the interface number.

Recommended Action No action is required.

Error Message `%ILPOWER-3-CONTROLLER_ERR:Controller error, Controller number [chars]: accessing failed`

Explanation This message means that an error reported or caused by the inline power controller was detected. [chars] is the controller number.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%ILPOWER-3-CONTROLLER_ERR:Controller error, Controller number [chars]:Reset failed`

Explanation This message means that an error reported or caused by the inline power controller was detected. [chars] is the controller number.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `ILPOWER-3-CONTROLLER_IF_ERR:Controller interface error, S2W bus:Initialization failed.`

Explanation This message means that an interface error was detected between the inline power controller and the system.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%ILPOWER-3-CONTROLLER_PORT_ERR:Controller port error, Interface Fa0/7:Power given, but link is not up.`

Explanation This message means that a port error reported by the inline power controller was detected.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

L2TM Messages

This section contains the Layer 2 forwarding manager messages. This software module controls the part of the hardware that performs MAC address-based forwarding and learning. A ternary content addressable memory (TCAM) device implements the forwarding table.

Error Message `L2TM-3-ACCESS_ERR: TCAM access failed while [chars].`

Explanation This message means that a failure occurred while reading from or writing to the TCAM. [chars] describes the part of the TCAM and the operation that failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `L2TM-7-INTERNAL_ERR: Internal error:[chars].`

Explanation This message means that an internal error occurred. [chars] describes the internal operation that failed.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

L3TCAM Messages

This section contains the Layer 3 unicast routing manager messages. This software module controls the part of the hardware that performs unicast routing. A ternary content addressable memory (TCAM) device implements the routing table.

Error Message `L3TCAM-3-SIZE_CONFLICT: [chars] requires enabling extended routing.`

Explanation This message means that size of the Layer 3 unicast TCAM entry is not sufficient to implement a feature.[chars] is the feature name (either Web Cache Communication Protocol [WCCP] or multiple VPN routing/forwarding [multi-VRF]) that requires the 144-bit TCAM size.

Recommended Action Modify the Switch Database Management (SDM) template to enable the switch to support the 144-bit Layer 3 TCAM. Use the **sdm prefer extended-match**, **sdm prefer access extended-match**, or **sdm prefer routing extended-match** global configuration command, and then reload the switch by using the **reload** privileged EXEC command.

Error Message `L3TCAM-3-TOO_MANY_VRF: Exceed the maximum number of VRF allowed.`

Explanation This message means that the number of virtual private networks (VPNs) exceeds the number allowed by the VPN routing/forwarding table on this hardware platform.

Recommended Action Reconfigure your switch to limit the number of VRFs. Do not define (name) more than seven VRFs with the **ip vrf** *vrf-name* global configuration command.

NETWORK_PORT_SATELLITE Messages

The section contains the network port satellite messages. A network port satellite is a Cisco application-specific integrated circuit (ASIC) within the switch that provides Layer 2 and Layer 3 functionality and the interface between a Gigabit link or multiple 10/100 Ethernet links and the switch.

Error Message `NETWORK_PORT_SATELLITE-3-PHY_LOCKUP: Repeated phy lockup seen on [chars]. Interface will be shut down.`

Explanation This message means that PHY lockup was detected too many times in a row. The interface is shut down to avoid continuous link flapping.

Recommended Action To re-enable the interface use the **shutdown** interface configuration command, followed by **no shutdown** interface configuration command.

Error Message `NETWORK_PORT_SATELLITE-6-MAC_LOCKUP: Transmit lock up is detected in [chars]. This port is administratively down.`

Explanation This message means that when the PHY is powered on and off, the MAC cycles from 1000 to 100 Mbps, and the port might lock up and stop sending packets. The PHY refers to the physical layer device on the switch, which sends and receives optical signals and provides framing and line integrity. [chars] is the interface name.

Recommended Action Shut down the port by using the **shutdown** interface configuration command, and bring it back up by using the **no shutdown** interface configuration command.

PLATFORM_CAT3550 Messages

This section contains the Catalyst 3550 low-level platform message. This message appears when the switch attempts to display the failure message from the previous failure.

Error Message `PLATFORM_CAT3550-1-CRASHED: [chars].`

Explanation This message means that the system is attempting to display the failure message from the previous failure. [chars] is the crash message.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

PM Messages

This section contains the port manager messages. The port manager is a state machine that controls all the logical and physical interfaces. All features, such as VLANs, UDLD, and so forth, work with the port manager to provide switch functions.

Error Message `PM-2-NOMEM: Not enough memory available for [chars].`

Explanation This message means that the port manager subsystem could not obtain the memory it needed to initialize the specified operation. [chars] is the port manager operation.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-2-VLAN_ADD: Failed to add VLAN [dec] - [chars].`

Explanation This message means that the software failed to add the VLAN to the VLAN Trunking Protocol (VTP) database. [dec] is the VLAN ID, and [chars] specifies the reason for the failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-BAD_APP_ID: An invalid application id [dec] was detected.`

Explanation This message means that the port manager detected an invalid request. [dec] is the application ID.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-BAD_APP_REQ: An invalid [chars] request by the '[chars]' application was detected.`

Explanation This message means that the port manager detected an invalid request. The first [chars] is the invalid request, and the second [chars] is the application making the request.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-BAD_CARD_COOKIE: An invalid card cookie was detected.`

Explanation This message means that the port manager detected an invalid request.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-BAD_CARD_SLOT: An invalid card slot ([dec]) was detected.`

Explanation This message means that the port manager detected an invalid request. [dec] is the slot number.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-BAD_COOKIE: [chars] was detected.`

Explanation This message means that the port manager detected an invalid request. [chars] is the invalid request.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-BAD_HA_ENTRY_EVENT: Invalid Host access entry event ([dec]) is received.`

Explanation This message means that an invalid host access entry event was received; the host access table entry event should be an add, delete, or update event. [dec] is the event that is received.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco 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 This message means that the port manager detected an invalid request.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco 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 This message means that the port manager detected an invalid request. [dec] is the port number.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco 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 This message means that the port manager detected an invalid request.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-BAD_VLAN_ID: An invalid vlan id ([dec]) was detected.`

Explanation This message means that the port manager detected an invalid request. [dec] is the VLAN ID.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-ERR_DISABLE: [chars] error detected on [chars], putting [chars] in err-disable state.`

Explanation This message means that the port manager detected a misconfiguration or misbehavior and placed the interface in an error-disabled state. A recovery is attempted after the configured retry time (the default is 5 minutes). The first [chars] is the error, and the second and third [chars] are the affected interfaces.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-ERR_RECOVER: Attempting to recover from [chars] err-disable state on [chars].`

Explanation This message means that the port manager is attempting to bring the interface up after taking it down to the error-disabled state. The first [chars] is the error, and the second [chars] is the affected interface.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-EXT_VLAN_INUSE: VLAN [dec] currently in use by [chars].`

Explanation This message means that the port manager failed to allocate the VLAN for external use because the VLAN is being used by another feature. [dec] is the VLAN that is being used, and [chars] is the feature that is using it.

Recommended Action Reconfigure the feature (for example, the routed port) to use another internal VLAN or to request another available VLAN.

Error Message `PM-4-EXT_VLAN_NOTAVAIL: VLAN [dec] not available in Port Manager.`

Explanation This message means that the port manager failed to allocate the requested VLAN. The VLAN is probably being used as an internal VLAN by other features. [dec] is the requested VLAN.

Recommended Action Try to configure a different VLAN on the device.

Error Message `PM-4-INT_FAILUP: [chars] failed to come up. No internal VLAN available.`

Explanation This message means that the port manager failed to allocate an internal VLAN, and, therefore, the interface cannot come up. [chars] is the interface name.

Recommended Action Remove the extended-range VLAN by using the **no vlan** *vlan-id* global configuration command to free up resources.

Error Message `PM-4-INT_VLAN_NOTAVAIL: Failed to allocate internal VLAN in Port Manager.`

Explanation This message means that the port manager failed to find any available internal VLAN.

Recommended Action Delete some extended-range VLANs created by users or remove some features (such as routed ports) that require internal VLAN allocation. To delete extended-range VLANs, use the **no vlan** *vlan-id* global configuration command. To delete a routed port, use the **no switchport** interface configuration command.

Error Message `PM-4-INVALID_HOST_ACCESS_ENTRY: Invalid Host access entry type ([dec]) is received.`

Explanation This message means that an invalid host access entry type was received; the host access entry should be a configured or dynamic type. [dec] is the entry type that is received.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-LIMITS: Virtual port count for [chars] exceeded the recommended limit of [dec].`

Explanation This message means that the virtual port count exceeded the recommended limit of 1200 virtual ports per module and 4500 per switch. [chars] is the module name (for example, switch or the module number), and [dec] is the recommended limit.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-NO_SUBBLOCK: No PM subblock found for [chars].`

Explanation This message means that the port manager failed to find the subblock for this interface. [chars] is the interface name.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-TOO_MANY_APP: Application '[chars]' exceeded registration limit.`

Explanation This message means that the port manager detected an invalid request. [chars] is the application.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-UNKNOWN_HOST_ACCESS: Invalid Host access value ([dec]) is received.`

Explanation This message means that the host access table is being accessed with an invalid host access value. [dec] is the value that is received.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `PM-4-VMPS_CFG: Dynamic access VLAN [dec] same as voice vlan on [chars].`

Explanation This message means that the access VLAN ID on the VMPS server is the same as the voice VLAN ID on the interface. [dec] is the access VLAN ID, and [chars] is the physical interface.

Recommended Action Assign the access VLAN on the VMPS server to a different VLAN ID from the voice VLAN ID.

PORT SECURITY Messages

This section contains the port security message.

Error Message `PORT_SECURITY-2-PSECURE_VIOLATION:Security violation occurred caused by MAC [enet] on port [chars].`

Explanation This message means that an unauthorized device attempted to connect on a secure port. MAC [enet] is the MAC address of the unauthorized device, and port [chars] is the secure port.

Recommended Action Identify the device that attempted to connect on the secure port. Notify your network system administrator of this condition.

QATM Messages

This section contains the QoS and ACL TCAM manager messages. This software module configures the hardware to match the QoS classification and security ACL that you configure on the switch.

Error Message `QATM-2-ASDATA_READ: Cannot read TCAM associated data.`

Explanation This message means that associated data could not be read from the TCAM. This error might mean a hardware failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `QATM-2-ASDATA_WRITE: Cannot write TCAM associated data.`

Explanation This message means that associated data could not be written to the TCAM. This error might mean a hardware failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `QATM-2-TCAM_READ: Cannot read TCAM.`

Explanation This message means that the TCAM could not be read from. This error might mean a hardware failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `QATM-2-TCAM_WRITE: Cannot write the TCAM.`

Explanation This message means that the TCAM could not be written to. This error might mean a hardware failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

QM Messages

This section contains the QoS manager messages. An incorrect QoS setting causes these messages.

Error Message `QM-4-ACTION_NOT_SUPPORTED: Action is not supported in policy map [chars].`

Explanation This message means that an action other than the **set**, **trust**, and **police** policy-map class configuration commands was configured in a policy map. This is a hardware limitation. [chars] is the name of the policy map.

Recommended Action Configure only the supported actions of **set**, **trust**, and **police** when in policy-map class configuration mode.

Error Message `QM-4-CLASS_NOT_SUPPORTED: Classification is not supported in class map [chars].`

Explanation This message means that an unsupported **match** class-map configuration command was configured in a policy map and attached to an egress interface or that more than one **match** command was configured. This is a hardware limitation. [chars] is the class-map name.

Recommended Action Reconfigure the class map or the policy map. Use only the **match ip dscp** *dscp-list* class-map configuration command in a policy map that is attached to an egress interface. Only one match per class map is supported.

Error Message `QM-4-HARDWARE_NOT_SUPPORTED: Hardware limitation has been reached for policy map [chars].`

Explanation This message means that the policy-map configuration has exceeded the limitation of the hardware. You either configured more QoS ACL entries than the number specified in the Switch Database Management (sdm) template, or you configured more policers in a policy map (by using the **police** or **police aggregate** policy-map class configuration command) than supported. [chars] is the policy-map name.

Recommended Action Reconfigure the class map or the policy map, and reduce the number of QoS ACLs.

Error Message `QM-4-MATCH_NOT_SUPPORTED: Match type is not supported in class map [chars].`

Explanation This message means that only the **access-group** a*cl-index-or-name*, **ip dscp** *dscp-list*, and **ip precedence** *ip-precedence-list* match types are supported with the **match** class-map configuration command. [chars] is the name of the class map.

Recommended Action Reconfigure the class map; use only the **match access-group**, **match ip dscp**, and **match ip precedence** class-map configuration commands within the class map.

Error Message `QM-4-NOT_SUPPORTED: Action [chars] is not supported for a policy map attached to output side.`

Explanation This message means that a **set** or **trust** policy-map class configuration command was configured in a policy map and attached to an egress interface. A warning message is logged, and the actions do not take affect. This is a hardware limitation. [chars] is either the set or trust action.

Recommended Action Do not configure a **set** or **trust** policy-map class configuration command in a policy map and attach it to an egress interface. These policy-map actions are supported only on ingress interfaces.

Error Message `QM-4-POLICER_NOT_SUPPORTED: Number of policers has exceeded hardware limitation for policy map [chars].`

Explanation This message means that the policy-map configuration has exceeded the limitation of the hardware. You configured more policers in a policy map (by using the **police** or **police aggregate** policy-map class configuration command) than supported. [chars] is the policy-map name.

Recommended Action Reconfigure the class map or the policy map, and reduce the number of policers.

Error Message `QM-4-POLICING_RATE_NOT_SUPPORTED: Policer configuration has exceeded hardware limitation for policy map [chars].`

Explanation This message means that the policy-map configuration has exceeded the limitation of the hardware. You configured a larger policing rate or burst size in a policy map (by using the **police** or **police aggregate** policy-map class configuration command) than supported. [chars] is the policy-map name.

Recommended Action Reconfigure the class map or the policy map, and reduce the policing rate or burst size.

SPAN Messages

This section contains the Switched Port Analyzer (SPAN) messages.

Error Message `SPAN-3-MEM_UNAVAIL: Memory was not available to perform the SPAN operation.`

Explanation This message means that the system was unable to perform a SPAN operation because of a lack of memory.

Recommended Action Reduce other system activity to ease the memory demands.

Error Message `SPAN-3-UNKN_ERR: An internal error occurred during a SPAN operation.`

Explanation This message means that SPAN detected an error in its internal operation.

Recommended Action The error might be transient. Try the SPAN operation again. If a second attempt also fails, reload the switch by using the **reload** privileged EXEC command to complete the operation.

Error Message `SPAN-3-UNKN_ERR_PORT: An internal error occurred when configuring SPAN on port [chars].`

Explanation This message means that SPAN detected an error in its internal operation. [chars] is the interface.

Recommended Action The error might be transient. Try the SPAN operation again. If the second attempt also fails, reload the switch by using the **reload** privileged EXEC command to complete the operation.

SPANTREE Messages

This section contains the spanning-tree messages.

Error Message `SPANTREE-2-BLOCK-PVID-PEER: Blocking on [chars] [chars]. Inconsistent peer vlan.`

Explanation This message means that the spanning-tree port associated with the listed spanning-tree instance and interface will be held in the 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 interface on the peer switch to which the listed interface is connected. The first [chars] is the interface, and the second [chars] is the spanning-tree instance.

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 it is corrected, spanning tree automatically unblocks the interfaces, as appropriate.

Error Message `SPANTREE-2-BLOCK-PVID-LOCAL: Blocking [chars] on [chars] Inconsistent local vlan.`

Explanation This message means that the spanning-tree port associated with the listed spanning-tree instance and interface will be held in the spanning-tree blocking state until the PVID inconsistency is resolved. The listed spanning-tree instance is that of the native VLAN ID of the listed interface. The first [chars] is the interface, and the second [chars] is the spanning-tree instance.

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

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

Explanation This message means that the spanning-tree message age timer has expired because no bridge protocol data units (BPDUs) were received from the designated bridge. Because this condition could be caused by a unidirectional-link failure, the interface is put into the blocking state and marked as loop-guard-inconsistent to prevent possible loops from being created. The first [chars] is the name of this port, and the second [chars] is the spanning-tree mode displayed in the **show spanning-tree** privileged EXEC command.

Recommended Action Enter the **show spanning-tree inconsistentports** privileged EXEC command to review the list of interfaces with loop-guard inconsistencies. Determine why devices connected to the listed ports are not sending BPDUs. One reason might be that they are not running the STP. If so, you should disable loop guard on the inconsistent interfaces by using the **spanning-tree guard none** interface configuration command or by starting STP on the remote side of the links.

Error Message `SPANTREE-2-LOOPGUARD_CONFIG_CHANGE: Loop guard [chars] on port [chars] on [chars].`

Explanation This message means that the spanning-tree loop-guard configuration for the listed interface has been changed. If enabled, the interface is placed into the blocking state. It is marked as loop-guard-inconsistent when the message-age timer expires because no BPDUs were received from the designated bridge. This feature is mainly used to detect unidirectional links. The first [chars] is the loop-guard state (*enable* or *disable*), the second [chars] is the interface name, and the third [chars] is the spanning-tree instance.

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 [chars] on [chars].`

Explanation This message means that the listed interface has received a BPDU, and, therefore, if the inconsistency was caused by a unidirectional link failure, the problem no longer exists. The loop-guard-inconsistency is cleared for the interface, which is taken out of the blocking state, if appropriate. The first [chars] is the name of this port, and the second [chars] is the spanning-tree mode displayed in the **show spanning-tree** privileged EXEC command.

Recommended Action No action is required.

Error Message `SPANTREE-2-PVSTSIM_FAIL: Superior PVST BPDU received on VLAN [dec] port [chars], claiming root [dec]:[enet]. Invoking root guard to block the port.`

Explanation This message means that when a PVST+ switch is connected to a Multiple Spanning Tree Protocol (MSTP) switch, the internal spanning-tree (IST) root (MSTOO) becomes the root for all PVST+ spanning trees. A loop might be created if any of the PVST+ spanning trees have a better root than the IST. To prevent the loop, the port on the MSTP switch that receives the superior message from the PVST+ side is blocked by root guard. The first [dec] is the VLAN number, [chars] is the port name, and [dec]:[enet] is the priority and MAC address.

Recommended Action When STP is converging after a new switch or switch port is added to the topology, this condition might happen transiently, and the port automatically unblocks in these cases. If the port remains blocked, identify the root bridge as reported in the message, and configure a priority for the VLAN spanning tree so that it is not selected as the root. There could be other superior PVST roots (lower bridge ID, lower path cost, and so forth) than the message indicates, and the port does not recover until all such roots are cleared. If you are unsure, disable and re-enable the port.

Error Message `SPANTREE-2-RECV-1Q-NON-1QTRUNK: Received 802.1Q BPDU on non 802.1Q trunk [chars] [chars].`

Explanation This message means that the listed interface on which a Shared Spanning Tree Protocol (SSTP) BPDU was received was in trunk mode but was not using 802.1Q encapsulation. The first [chars] is the port, and the second [chars] is the VLAN.

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 (*ISL* or *802.1Q*). If the encapsulation types are different, use the **switchport trunk encapsulation** interface configuration command to make them consistent. When the encapsulation is consistent, spanning tree automatically unblocks the interface.

Error Message `SPANTREE-2-RECV-BAD-TLV: Received SSTP BPDU with bad TLV on [chars] [chars].`

Explanation This message means that the listed interface received an SSTP BPDU without the VLAN ID tag. The BPDU is discarded. The first [chars] is the port, and the second [chars] is the VLAN that received the SSTP BPDU.

Recommended Action If the message recurs, copy the message exactly as it appears on the console or in the system log, call your Cisco 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 [chars] [chars].`

Explanation This message means that the listed interface received an SSTP BPDU that is tagged with a VLAN ID that does not match the VLAN ID on which the BPDU was received. This occurs when the native VLAN is not consistently configured on both ends of an 802.1Q trunk. [dec] is the VLAN ID, the first [chars] is the port, and the second [chars] is the VLAN.

Recommended Action Verify that the configurations of the native VLAN ID is consistent on the interfaces on each end of the 802.1Q trunk connection. When the configurations are consistent, spanning tree automatically unblocks the interfaces.

Error Message `SPANTREE-2-ROOTGUARD_BLOCK: Root guard blocking port [chars] on [chars].`

Explanation This message means that on the listed interface a BPDU was received that advertises a superior spanning-tree root bridge (lower bridge ID, lower path cost, and so forth) than that in use. The interface is put into blocking state and marked as *root-guard inconsistent* to prevent a suboptimal spanning-tree topology from forming. The first [chars] is the name of this port, and the second [chars] is the spanning-tree mode displayed in **show spanning-tree** privileged EXEC command.

Recommended Action Enter the **show spanning-tree inconsistentports** privileged EXEC command to review the list of interfaces with root-guard inconsistencies. Determine why devices connected to the listed ports are sending BPDUs with a superior root bridge, and take action to prevent more occurrences. When the inaccurate BPDUs have been stopped, the interfaces automatically recover and resume normal operation. Make sure that it is appropriate to have root guard enabled on the interface.

Error Message `SPANTREE-2-ROOTGUARD_CONFIG_CHANGE: Root guard [chars] on port [chars] on [chars].`

Explanation This message means that the spanning-tree root guard configuration for the listed interface has changed. If enabled, any BPDU received on this interface that advertises a superior spanning-tree root bridge (lower bridge ID, lower path cost, and so forth) to that already in use causes the interface to be put into the blocking state and marked as *root-guard inconsistent*. The first [chars] is the root-guard state (*enable* or *disable*), the second [chars] is the interface, and the third [chars] is the spanning-tree instance.

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

Error Message `SPANTREE-2-ROOTGUARD_UNBLOCK: Root guard unblocking port [chars] on [chars].`

Explanation This message means that the listed interface is no longer receiving BPDUs advertising a superior root bridge (lower bridge ID, lower path cost, and so forth). The root-guard inconsistency is cleared for the interface, and the blocking state is removed from the interface. The first [chars] is the name of this port, and the second [chars] is the spanning-tree mode displayed in **show spanning-tree** privileged EXEC command.

Recommended Action No action is required.

Error Message `SPANTREE-2-RX-PORTFAST: Received BPDU on PortFast enabled port. Disabling [chars].`

Explanation This message means that a BPDU was received on the listed interface, which has the spanning-tree Port Fast feature enabled. Because spanning-tree BPDU guard is also enabled, the interface is administratively shut down. [chars] is the interface that received the BPDU.

Recommended Action Verify the Port Fast configuration on the interface. If the Port Fast behavior is desired, verify that the interface is connected to only a host or router and not to a bridge or a switch. After resolving the conflict, re-enable the interface by entering the **no shutdown** interface configuration command.

Error Message `SPANTREE-2-UNBLOCK-CONSIST-PORT: Unblocking [chars] on [chars]. Port consistency restored.`

Explanation This message means that the port VLAN ID or port type inconsistencies have been resolved and spanning tree will unblock the listed interface of the listed spanning-tree instance as appropriate. The first [chars] is the interface, and the second [chars] is the spanning-tree instance.

Recommended Action No action is required.

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 This message means that an error occurred in the platform-specific code, which caused it to request more or less bits than are possible. The spanning-tree port identifier is a 16-bit field, which is divided evenly between the port priority and port number, with each subfield being 8 bits. This allows the port number field to represent port numbers between 1 and 255. However, on systems with more than 255 ports, the size of port number portion of the port ID must be increased to support the number of ports. This is performed by the STP subsystem 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, which causes it to request more or less bits than are possible. The first [dec] is the number of bits for the port number, and the second and third [dec] describe the valid range.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show version** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show version** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SPANTREE-3-PORT_SELF_LOOPED: [chars] disabled.- received BPDU src mac [enet] same as that of interface.`

Explanation This message means that a BPDU was received on the listed interface with a source MAC address that matches the one assigned to the listed interface. This means that a port might be looped back to itself, possibly because of an installed diagnostic cable. The interface will be administratively shut down. [chars] is the interface that received the BPDU, and [enet] is the source MAC address.

Recommended Action Check the interface configuration and any cable plugged into the interface. When the problem is resolved, re-enable the interface by entering the **no shutdown** interface configuration command.

Error Message `SPANTREE-5-EXTENDED_SYSID: Extended SysId [chars] for type [chars].`

Explanation This message means that the extended system ID feature is either enabled or disabled for the given type of spanning tree. If enabled, the spanning-tree instance identifier is stored in the lower portion of the bridge ID priority field and limits the allowed values for the bridge priority from 0 to 61440, in increments of 4096. If disabled, the bridge ID priority field consists only of the configured priority, but some spanning-tree features might not be available on a given platform (for example, support for 4096 VLANs). On some platforms, this feature might be mandatory. The first [chars] is the extended system ID state (*enable* or *disable*), and the second [chars] is the spanning-tree instance.

Recommended Action No action is required.

Error Message `SPANTREE-7-BLOCK-PORT-TYPE: Blocking [chars] on [chars]. Inconsistent port type.`

Explanation This message means that the listed interface is being held in the spanning-tree blocking state until the port-type inconsistency is resolved. The first [chars] is the interface, and the second [chars] is the spanning-tree instance.

Recommended Action Verify that the configuration and operational states of the listed interface and those 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 (*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 [chars] [chars].`

Explanation This message means that an SSTP BPDU was received on the listed interface, which is not an operational trunking interface. The first [chars] is the port name, and the second [chars] is the VLAN name.

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 (*none*, *ISL*, or *802.1Q*). When these parameters are consistent, spanning tree automatically unblocks the interface.

SPANTREE_FAST Messages

This section contains the spanning-tree fast-convergence message.

Error Message `SPANTREE_FAST-7-PORT_FWD_UPLINK: [chars] [chars] moved to Forwarding (UplinkFast).`

Explanation This message means that the listed interface has been selected as the new path to the root switch for the listed spanning-tree instance. The first [chars] is the spanning-tree instance, and the second [chars] is the interface.

Recommended Action No action is required.

SPANTREE_VLAN_SWITCH Messages

The section contains the per-VLAN spanning-tree-specific message.

Error Message `SPANTREE_VLAN_SW-2-MAX_INSTANCE: Platform limit of [dec] STP instances exceeded. No instance created for [chars] (port [chars]).`

Explanation This message means that the number of currently active VLAN spanning-tree instances has reached a platform-specific limit. No additional VLAN instances will be created until the number of existing instances drops below the platform limit. [dec] is the spanning-tree instance limit, and the first [chars] is the smallest VLAN number of those VLANs that are unable to have STP instances created.

Recommended Action Reduce the number of currently active spanning-tree instances by either disabling some of the currently active spanning-tree instances or deleting the VLANs associated with them. You must manually enable the spanning trees that could not be created because of limited instances.l

SW_VLAN Messages

This section contains the VLAN manager messages. The VLAN manager receives information from the VTP and enables the proper VLAN membership on all interfaces through the port manager.

Error Message `SW_VLAN-3-VLAN_PM_NOTIFICATION_FAILURE: VLAN Manager synchronization failure with Port Manager over [chars].`

Explanation This message means that the VLAN manager dropped a notification from the port manager because of a lack of ready pool space. [chars] is the type of port manager notification.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-3-VTP_PROTOCOL_ERROR: VTP protocol code internal error:[chars].`

Explanation This message means that the VTP code encountered an unexpected error while processing a configuration request, a packet, or a timer expiration. [chars] is the internal error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-BAD_PM_VLAN_COOKIE_RETURNED: VLAN manager unexpectedly received a bad PM VLAN cookie from the Port Manager, VLAN indicated:[dec].`

Explanation This message means that the VLAN manager received an upcall and a VLAN cookie from the port manager, which translated to a bad VLAN number. [dec] is the VLAN ID.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

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 This message means that the VLAN software did not use the VLAN configuration from the startup-configuration file. It will use the binary VLAN configuration file in nonvolatile memory.

Recommended Action No action is required.

Error Message `SW_VLAN-4-BAD_VLAN_CONFIGURATION_FILE: VLAN configuration file contained incorrect verification word:[hex].`

Explanation This message means that the VLAN configuration file read by the VLAN manager did not begin with the correct value. The VLAN configuration file is invalid, and it has been rejected. [hex] is the incorrect verification value.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-BAD_VLAN_CONFIGURATION_FILE_VERSION: VLAN configuration file contained unknown file version:[dec].`

Explanation This message means that the VLAN configuration file read by the VLAN manager contained an unrecognized file version number, which might mean an attempt to regress to an older version of the VLAN manager software. [dec] is the file version number.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-BAD_VLAN_TIMER_ACTIVE_VALUE: Encountered incorrect VLAN timer active value:[chars].`

Explanation This message means that, because of a software error, a VLAN timer was detected as active when it should have been inactive or is inactive when it should have been active. [chars] is the VLAN timer active value.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-EXT_VLAN_CREATE_FAIL: Failed to create VLANs [chars]: [chars].`

Explanation The message means that the software failed to create VLANs. The first [chars] is the Layer 2 VLAN list, and the second [chars] describes the reason for the failure.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-EXT_VLAN_INTERNAL_ERROR: Extended VLAN manager received an internal error [dec] from [chars]: [chars].`

Explanation This message means that an unexpected error code was received by the VLAN manager from the extended-range VLAN configuration software. [dec] is the error code. The first [chars] is the function, and the second [chars] describes the error code.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-EXT_VLAN_INVALID_DATABASE_DATA: Extended VLAN manager received bad data of type [chars]: value [dec] from function [chars].`

Explanation This message means that invalid data was received by the extended-range VLAN manager from an extended-range VLAN configuration database routine. The first [chars] is the data type, [dec] is the number received, and the second [chars] is the function name.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-IFS_FAILURE: VLAN manager encountered file operation error: call = [chars] / file = [chars] / code = [dec] ([chars]) / bytes transferred = [dec].`

Explanation This message means that the VLAN manager received an unexpected error return from an IOS file system (IFS) call while reading the VLAN database. The first [chars] is the name of the function call, and the second [chars] is the file name. [dec] is the error code, the third [chars] is the textual interpretation of the error code, and the second [dec] is the number of bytes transferred.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-NO_PM_COOKIE_RETURNED: VLAN manager unexpectedly received a null [chars] type cookie from the Port Manager, data reference:[chars].`

Explanation This message means that the VLAN manager queried the port manager for a reference cookie but received a NULL pointer instead. The first [chars] is the type of port manager cookie, and the second [chars] is the interface or VLAN that is the source of the problem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-STARTUP_EXT_VLAN_CONFIG_FILE_FAILED: Failed to configure extended range VLAN from startup-config. Error [chars].`

Explanation This message means that the VLAN software failed to use an extended-range VLAN configuration from the startup configuration file. All extended-range VLAN configurations are lost after the system boots up. [chars] is a description of the error code.

Recommended Action No action is required.

Error Message `SW_VLAN-4-VTP_INTERNAL_ERROR: VLAN manager received an internal error [dec] from vtp function [chars]:[chars].`

Explanation This message means that the VLAN manager received an unexpected error code from the VTP configuration software. [dec] is the error code, the first [chars] is the VTP function, and the second [chars] is the error-code description.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-VTP_INVALID_DATABASE_DATA: VLAN manager received bad data of type [chars]:value [dec] from vtp database function [chars].`

Explanation This message means that the VLAN manager received invalid data from a VTP configuration database routine. The first [chars] is the data type; [dec] is the inappropriate value that was received, and the second [chars] is the VTP database function.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-VTP_INVALID_EVENT_DATA: VLAN manager received bad data of type [chars]:value [dec] while being called to handle a [chars] event.`

Explanation This message means that the VLAN manager received invalid data from the VTP configuration software. The first [chars] is the data type, and [dec] is the value of that data, and the second [chars] is the VTP event.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `SW_VLAN-4-VTP_USER_NOTIFICATION: VTP protocol user notification: [chars].`

Explanation This message means that the VTP code encountered an unusual diagnostic situation. [chars] is a description of the situation.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

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 This message means that the VLAN software detected an old version of the VLAN configuration file format. It interpreted the file without a problem, but it will create files using the new format in the future. The first [dec] is the old version number, and the second [dec] is the new version number.

Recommended Action No action is required.

Error Message `SW_VLAN-6-VTP_MODE_CHANGE: VLAN manager changing device mode from [chars] to [chars].`

Explanation This message means that an automatic VTP mode device change occurred upon receipt of a VLAN configuration database message containing more than a set number of VLANs. The first [chars] is the previous mode, and the second [chars] is the current mode.

Recommended Action No action is required.

UDLD Messages

This section contains UniDirectional Link Detection (UDLD) messages.

Error Message `UDLD-3-UDLD_IDB_ERROR: UDLD error handling [chars] interface:[chars].`

Explanation This message means that a software error occurred in UDLD processing associated with a specific interface. The first [chars] is the event, and the second [chars] is the interface.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `UDLD-3-UDLD_INTERNAL_ERROR: UDLD internal error:[chars].`

Explanation This message means that a software check failed during UDLD processing. [chars] is a description of the internal error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `UDLD-3-UDLD_INTERNAL_IF_ERROR: UDLD internal error, interface [chars]:[chars].`

Explanation This message means that a software check failed during UDLD processing. The first [chars] is the interface, and the second [chars] is a description of the error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `UDLD-4-UDLD_PORT_DISABLED: UDLD disabled interface [chars], [chars] detected.`

Explanation This message means that the UDLD Protocol disabled an interface because it detected connections between neighbors that were functioning only in one direction, which might potentially cause spanning-tree loops or interfere with connectivity. The cause is likely to be hardware related, either due to a bad port, a bad cable, or a misconfigured cable. The first [chars] is the interface, and the second [chars] is the error detected.

Recommended Action Try to correct the configuration or locate the bad cable. If you are not successful, copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `UDLD-6-UDLD_PORT_RESET: UDLD reset interface [chars].`

Explanation This message means that the UDLD Protocol detected a unidirectional connection between neighbors. You reset the port that was disabled by UDLD by using the **udld reset** privileged EXEC command or through a hardware action such as a link-state change. [chars] in the interface.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Enter the **show tech-support** privileged EXEC command to gather data that might provide information about the error. If you cannot determine the nature of the error from the error message or from the **show tech-support** command display, call your Cisco technical support representative, and provide the representative with the gathered information.