APPENDIX B

System Error Messages

This appendix lists and describes the system error messages for the Layer 3 switch routers. The system software sends these error messages to the console (and, optionally, to a logging server on another system) during operation. Not all system error messages indicate problems with your system. Some are purely informational, while others may help diagnose problems with communications lines, internal hardware, or the system software. This appendix contains the following sections:

Note See the "Error Messages" section on page B-4 for a listing of the error messages on the Catalyst 2948G-L3 and Catalyst 4908G-L3 switch routers. The error messages are alphabetized by facility-severity-mnemonic.

How System Error Messages are Organized

System error messages are organized according to the particular system facility that produces the messages. The facility sections appear in alphabetical order, and within each system facility section, messages are listed alphabetically by mnemonic. An explanation and a recommended action follow each error message. System error messages appear only when the system remains operational.

Error message severity levels correspond to the keywords assigned by the logging global configuration commands that define where and at what level these messages appear. The default is to log messages to the console at the debugging level (7).

How to Read System Error Messages

This section describes how system error messages are structured.

System error messages begin with a percent sign and are structured as follows:

```
%FACILITY-SEVERITY-MNEMONIC: Message-text
```

Facility is a code consisting of two or more uppercase letters that indicate the facility to which the message refers. A facility can be a hardware device, a protocol, or a module of the system software. Table B-1 lists the system facility codes.

Table B-1 Facility Codes

Code	Facility
AAA	TACACS+ authentication, authorization, and accounting security
ALIGN	Memory optimization in reduced instruction set computing (RISC) processor
ARAP	Apple Remote Access Protocol
IP	Internet Protocol
IPMCAST	Gigabit switch router line card IP multicast
IPX	Internetwork Packet Exchange protocol
IP-SNMP	Simple Network Management Protocol specific to IP
LSS	LightStream Switching Subsystem
PIM	Protocol Independent Multicast
RIP	IP Routing Information Protocol
SMF	Software MAC Filter
SNMP	Simple Network Management Protocol
SNMP_MGR	SNMP proxy
TACACS	Terminal Access Controller Access Control System
TBRIDGE	Transparent bridging
TCP	Transmission Control Protocol

Severity is a single-digit code from 0 to 7 that reflects the severity of the condition. The lower the number, the more serious the situation. Table B-2 lists the severity levels.

Table B-2 Error Message Severity Levels

Severity Levels	Severity Types	Description
0	Emergency	System unusable
1	Alert	Immediate action needed
2	Critical	Critical condition
3	Error	Error condition
4	Warning	Warning condition
5	Notification	Normal but significant condition
6	Informational	Informational message only
7	Debugging	Appears during debugging only

Mnemonic is a code that uniquely identifies the error message.

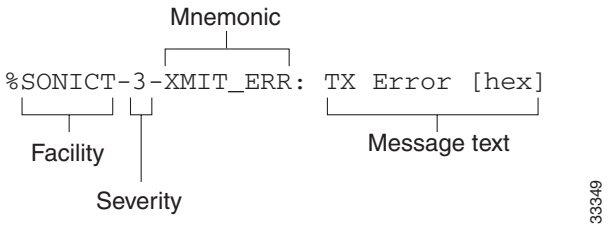
Message-text is a text string describing the condition. This portion of the message sometimes contains detailed information about the event, including terminal port numbers, network addresses, or addresses that correspond to locations in the system memory address space. Because the information in these variable fields changes from message to message, it is represented here by short strings enclosed in square brackets ([ ]). A decimal number, for example, is represented as [dec]. Table B-3 lists the representations of variable fields and the type of information in them.

Table B-3 Representation of Variable Fields in Error Messages

Representation	Type of Information
[dec]	Decimal number
[hex]	Hexadecimal number
[char]	Single character
[chars]	Character string

Figure B-1 describes the structure of a sample system error message.

Figure B-1 Structure of a Sample System Error Message



Error Message Traceback Reports

Some messages describe internal errors and contain traceback information. This information is very important and should be included when you report a problem to your technical support representative.

The following sample message includes traceback information:

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

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

Error Messages

This section describes error messages for the Catalyst 2948G-L3 and the Catalyst 4908G-L3 switch routers.

- When attempting to add more routes than the size previously configured with the **sdm size** command, you receive an error message.

  For example, if the number of IP multicast routes added to SDM exceeds the size configured with the **sdm size** command, you see the following error message:

  ```
  %LSS-1-SDM: IP Multicast, Region reached limit Cannot accept more entries
  ```

  Explanation Cannot accept any more routes in SDM.

  Action Increase the protocol size using the **sdm size** configuration command and reload the switch router.

- When attempting to add more routes than the Fast Ethernet CAM size allows, you see the following error message:

  ```
  %LSS-4-INTERFACE:(Interface FastEthernet2) CAM reached limit. Cannot
  accept more route entries
  ```

  Explanation Cannot accept more routes in CAM.

  Action None.

Note Error messages that appear while configuring the Fast Ethernet interfaces do not apply to the Catalyst 4908G-L3 switch router, which only has Gigabit Ethernet interfaces.

- If TCAM programming fails while applying an ACL on the interface, one of the following Warning messages might be displayed:

  ```
  Warning:Programming TCAM entries failed
  ```

  Explanation There is insufficient space in TCAM to program these entries. The ACL will be deactivated on that interface and the TCAM entries for that ACL will be removed.

  Action One of the following actions should be performed:

  a. Remove the last ACL entry to restore the ACL.

  b. Increase the TCAM size.

  ```
  Warning:Cannot allocate LOU resources
  Warning:Expanding LOU failed
  ```

  Explanation The port-related hardware resource allocation failed for extended ACLs. The ACL will be deactivated on that interface and the TCAM entries for that ACL will be removed.

  Action Remove the last ACL entry to restore the ACL.

  ```
  Warning:Unable to program hardware LOU resources
  ```

  Explanation There is a hardware error and the ACL cannot be applied.

  Action Verify the condition of the hardware and replace any faulty hardware.

```
Warning:Failure inserting interface in shared interface list
Warning:Conversion of ACL failed
```

Explanation The system might have run out of memory or an unsupported ACLs may have been applied.

Action Verify the system has sufficient memory and remove unsupported ACLs.

```
Warning:Allocation of label failed
```

Explanation The system has exhausted all the labels and cannot program TCAM entries. This could happen if more than 127 ACLs are applied on different subinterfaces.

Action Reduce the number of ACLs by removing ACLs from the subinterfaces.