Cisco Software System Messages, All Releases

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This document describes system messages for Cisco software releases. During operation, the system software sends these messages to the console (and, optionally, to a logging server on another system) during operation. Not all system messages indicate problems with your system. Some are purely informational, and others may help diagnose problems with communications lines, internal hardware, or the system software.

Error Messages Decoder

The Cisco Technical Assistance Center (TAC) has made available to all registered users an online tool, the Cisco Error Message Decoder, for researching and resolving messages: The Cisco Error Messages Decoder. All you have to do is copy an error message or command output from your screen and paste it into the appropriate text fields of the tool. Within moments, the tool responds with an interpretation of your text. The Cisco Error Message Decoder makes it easy for you to distinguish between messages that are purely informational and those that alert you to potential problems. This tool provides you with an explanation of the error message, a recommended action, and links to suggested online Cisco technical support resources. For help researching and resolving your Cisco messages, try the new Cisco Error Message Decoder tool at http://www.cisco.com/cgi-bin/Support/Errordecoder/index.cgi.

How to Read System Messages

System messages begin with a percent sign (%) and are structured as follows.

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

- The text in bold are required elements of the System Message, the text in italics are optional elements of the System Message.
- `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.

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- SUBFACILITY is used only for Cisco Catalyst 6000 series switches that are operating in a distributed system. The subfacility can consist of one code, or two codes that are divided by a hyphen, and describes the part of the distributed system from where the message is coming. For example, the %DIAG-SP-STDBY-6-RUN_MINIMUM system message is the %DIAG-6-RUN_MINIMUM message coming from the switch processor (SP) that is in redundant or standby (STDBY) mode.
- 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 1 lists the severity levels.
- MNEMONIC is a code that uniquely identifies the system message.
- Message-text is a text string that describes 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 2 lists the representations of variable fields and the type of information in them.

The following is a sample system message:

```
%LINK-2-BADVCALL: Interface [chars], undefined entry point
```

Some messages also indicate the card and slot that are reporting the error. These messages begin with a percent sign (%) and are structured as follows:

```
%CARD-SEVERITY-MSG:SLOT %FACILITY-SEVERITY-MNEMONIC: Message-text
```

- CARD is a code that describes the type of card reporting the error. Possible card types are: CIP, CIP2, ECPA, ECPA4, FEIP, PCPA, and VIP.
- MSG is a mnemonic that indicates that this is a message. It is always shown as MSG.
- SLOT indicates the slot number of the card that is reporting the error. It is shown as SLOT followed by a number (for example, SLOT5).

Table 1 System Message Severity Levels

Level	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

System message severity levels correspond to the keywords assigned by the **logging console** and **logging monitor** global configuration commands that define where and at what level these messages appear. In general, the default is to log messages from level 0 (emergencies) to level 7 (debugging). However, the default level varies by platform. For more information, see the system configuration chapter and descriptions of the **logging console** and **logging monitor** commands in the appropriate Cisco IOS configuration guide and command reference publications.

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
```

Obtaining Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html